

TABLE OF CONTENTS

| ID | Paper Title and Author(s) | Page |
|-----------|--|-------------|
| 001 | THE DETERMINANTS OF BUSINESS RESCUE: ESKOM AND SOUTH AFRICAN AIRWAYS (SAA) L. Nkosi | 08 |
| 002 | CONTRIBUTIONS OF JUST-IN-TIME (JIT) APPROACH TOWARD INVENTORY COSTS, INVENTORY MANAGEMENT, AND BUSINESS PERFORMANCE: PERSPECTIVES FROM TWO CASE STUDIES IN A SOUTH AFRICAN ENVIRONMENT S. Govuzela | 17 |
| 003 | THE IMPACT OF ENTREPRENEURSHIP ON ECONOMIC GROWTH IN SOUTH AFRICA S. Govuzela | 28 |
| 009 | RISK MANAGEMENT AND FINANANCIAL PERFORMANCE OF LISTED COMMERCIAL BANKS IN MALAWI P. Chipeta | 42 |
| 012 | METHODS USED BY THE SOUTH AFRICAN POLICE SERVICE TO COMBAT STOCK THEFT BY EMPLOYING DEOXYRIBONUCLEIC ACID POLYMERASE CHAIN REACTION AND SEQUENCING IN LIMPOPO PROVINCE W. Maluleke, C. Harper | 61 |
| 014 | PERCEPTIONS OF ORGANISATIONAL JUSTICE AND JOB SATISFACTION OF ADMINISTRATIVE STAFF AT A UNIVERSITY OF TECHNOLOGY IN SOUTH AFRICA P.A. Joubert, N.S. Cana | 75 |
| 015 | AFRICA'S SOCIAL INTEGRATION AND GLOBAL RELEVANCE: SOME OBSTACLES TO SURMOUNT N.S. Mathonsi, S.L. Sithole | 87 |
| 017 | USING MOTIVATIONAL FACTORS AND SPECTATOR SATISFACTION TO PREDICT INTENTION TO ATTEND MFC SOCCER LEAGUE P.N. Mabasa | 103 |
| 018 | THE AID OF RHINO DEOXYRIBONUCLEIC ACID INDEX SYSTEM TO COMBAT RHINO POACHING: A SCOPING REVIEW OF SOUTH AFRICAN EXPERIENCES W. Maluleke, N.F. Shibambu | 118 |
| 020 | RISK MANAGEMENT TECHNIQUES ON BUSINESS PERFORMANCE IN THE MANUFACTURING INDUSTRY OF SOUTH AFRICA M.M.K. Mogano, E. Chinomona | 134 |
| 021 | MODELLING THE INFLUENCE OF RESOURCE MOBILISATION, EMPLOYEE TRAINING AND INNOVATIVENESS ON SMALL AND MEDIUM ENTERPRISES' SUSTAINABILITY S.A. Mofokeng, E. Chinomona | 146 |
| 024 | VALIDATION OF A VOLUNTEER MOTIVES SCALE WITHIN A COHORT OF SPORT ORGANISATION'S VOLUNTEERS: A CASE STUDY L.F. Tshabalala, B.A. Mokoena | 160 |

| ID | Paper Title and Author(s) | Page |
|-----------|---|-------------|
| 025 | DEVELOPMENT OF ENTREPRENEURIAL COMPETENCIES INTO VIABLE ENTERPRISES ACCORDING TO EDUCATION 5.0 IN ZIMBABWEAN UNIVERSITIES A. Ndudzo, S. Ganyani, C. Ndlovu, S. Ndondo | 170 |
| 035 | EXPLORING THE ROLE OF LEADERSHIP IN ENTERPRISE RISK MANAGEMENT AT A SELECTED SOUTH AFRICAN INTERNET SERVICE PROVIDER E.M. Motene, C.M. Schultz, H. De Jager | 187 |
| 037 | DETERMINATION OF DOCTORAL SUCCESS AND PROGRESS AT THE UNIVERSITY OF SOUTH AFRICA (UNISA) S.L. Ezesele | 199 |
| 042 | INFLUENCE OF TRAINING AND DEVELOPMENT ON JOB SATISFACTION AND LOYALTY AMONG ACADEMICS M.P. Mampuru, B.A. Mokoena | 224 |
| 043 | EXPLORING BARRIERS OF REPORTING INTIMATE PARTNER VIOLENCE AGAINST WOMEN IN SESHEGO ZONE 1, LIMPOPO PROVINCE C.L. Maswanganye, O.R. Chabalala | 239 |
| 046 | SUSTAINING HIGHER EDUCATION INTERNATIONALISATION SERVICE LEVELS POST-COVID-19 L. Steynberg, J.P. Grundling, B. Liu, Y. Li | 254 |
| 047 | FACTORS AFFECTING THE PERCEIVED EFFECTIVENESS OF POLICE PERFORMANCE AT A SELECTED POLICE STATION IN THE FREE-STATE M.S. Mpjatona, C.M. Schultz, H. de Jager | 270 |
| 050 | EXPLORING THE LINK BETWEEN EMPLOYEE PERFORMANCE AND JOB MOTIVATION C.C. Mara | 281 |
| 052 | A REVIEW STUDY ON ALTERNATIVE MANAGEMENT METHODS TO SUSTAIN MEDICAL PLANTS IN SOUTH AFRICA N.F. Shibambu | 300 |
| 056 | THE INFLUENCE OF SUPPLY CHAIN FLEXIBILITY ON RESILIENCE AND COMPETITIVE ADVANTAGE IN THE CONSUMER ELECTRONICS INDUSTRY W.V.L. Okoumba, C. Mafini | 313 |
| 059 | SUSTAINING THE COVID-19 INDUCED DIGITAL TRANSFORMATION IN EDUCATION MECHANISMS FOR SUCCESS IN THE FOURTH INDUSTRIAL REVOLUTION D. Mhlanga | 325 |
| 060 | SOCIAL VALUE CREATION IN SOUTH AFRICAN SOCIAL ENTERPRISES: POST COVID-19 LESSONS A.M. Sheikl, V.O. Adekomaya | 343 |
| 061 | THE EFFECTS OF SHARIAH ON SUCCESSION IN MUSLIM FAMILY BUSINESS R. Roberts, R. Venter | 360 |
| 063 | THE IMPACT OF SUPPLIER MANAGEMENT PRACTICES ON SUPPLIER PERFORMANCE AT ESKOM T. Sebola, I. Langton, C. Mafini | 374 |
| 064 | IMPACT OF FOREIGN DIRECT INVESTMENT AND ELECTRICITY SUPPLY ON ECONOMIC GROWTH: EVIDENCE FROM SOUTH AFRICA K.P. Mbusela, P.D. Semosa, K.K. Ogujiuba | 390 |

| ID | Paper Title and Author(s) | Page |
|-----------|--|-------------|
| 066 | INCLUSION OF RISK IN DECISION-MAKING BY EXECUTIVE MANAGERS IN A PUBLIC COMPANY L.J. Mogapi, E.G. Lindeque | 404 |
| 067 | ACCOMODATIVE LEADERSHIP: UNDERSTANDING THE BEHAVIOURAL ASPECTS OF AFRILLENNIALS IN A ASOUTH AFRICAN WORK CONTEXT I. Kara | 418 |
| 068 | IMPLICATIONS OF HIGHER EDUCATION REFORMS ON AFRICA'S DEVELOPMENT. THE ZIMBABWEAN PERSPECTIVES A. Gwiza, D.B. Jarbandhan, M. Tambaoga, M. Tambaoga | 436 |
| 080 | THE EFFECT OF BUSINESS START-UP FACTORS ON THE PERSONAL ATTITUDE OF AGRICULTURAL STUDENTS IN SOUTH AFRICA M. Mavhungu | 459 |
| 084 | THE SUPPLY CHAIN FACTORS INFLUENCING HOUSING DEVELOPMENT PROCESS PERFORMANCE IN THE DEPARTMENT OF CO-OPERATIVE GOVERNANCE, HUMAN SETTLEMENTS AND TRADITIONAL AFFAIRS, NORTHERN CAPE C.N. Adams, O. Omoruyi | 476 |
| 087 | A TWITTER ANAYLSIS OF THE STATE OF THE NATION ADDRESS OF 2023 A.G. Van der Vyver, J. Pretorius | 489 |
| 090 | COMMUNITY DEVELOPMENT PLANNING PRE & POST COVID-19: BUILDING SUSTAINABLE FUTURE FOR ALL COMMUNITIES IN SOUTH AFRICA D.S. Malebana, P.T. Mnisi | 505 |
| 096 | EFFECT OF RISK-TAKING ON RETAIL SMES' NON-FINCIAL PERFORMANCE IN TSHWANE V. Kalitanyi | 516 |
| 098 | CHANGING RISK CULTURE: INSIGHTS FROM EMPLOYEES BEFORE IMPLEMENTING LEAN MANUFACTURING AT A SOUTH AFRICAN CHEMICALS PLANT J.F. Goede, R.S. Nair | 529 |
| 100 | THE PROSOCIAL MOTIVATION OF SOCIAL ENTREPRENEURS IN WASTE MANAGEMENT BUSINESSES IN SOUTH AFRICA O. Akinboade, M.J. Ngoepe-Ntsoane | 546 |
| 101 | EXPLORING POULTRY FARMER'S AWARENESS OF EXTERNAL CAUSES OF FINANCIAL DISTRESS IN NORTH WEST PROVINCE A.J. Meintjes, H.P. Mfulwane | 566 |
| 103 | ENCOURAGING ENTREPRENEURSHIP AT EARLY CHILDHOOD THROUGH PARENTS AND COMMUNITY ENGAGEMENT: INVESTING AT EMFULENI REGION- SOUTH AFRICA M.L. Ntshingila | 580 |
| 104 | UNDERSTANDING THE IMPACT OF COVID-19 ON E-BUSINESS IN SOUTH AFRICA M. Musaiywa, V. Kalitanyi | 595 |
| 105 | THE APPLICATION OF THE RATIONAL CHOICE THEORY ON THE FINANCIAL EXPLOITATION OF ELDERLY PEOPLE IN MANDHAKAZI VILLAGE, LIMPOPO PROVINCE A.T. Rikhotso, O.R. Chabalala | 609 |

| ID | Paper Title and Author(s) | Page |
|-----|---|------|
| 106 | ENHANCING TVET LECTURER COMPETENCE THROUGH INDUSTRY-BASED INDUCTION AND MENTORSHIP: A WORK-INTEGRATED LEARNING EXPERIENCE J. Mesuwini, S.P. Mokoena | 620 |
| 111 | PSYCHOLOGICAL WELL-BEING IN RELATION TO TEACHERS' WORK ENGAGEMENT J. Mitonga-Monga, BW. Makhubele | 634 |
| 112 | CHALLENGES AND OPPORTUNITIES EMANATING FROM THE INTERNSHIP PROGRAMME IN THREE PUBLIC INSTITUTIONS OF LIMPOPO PROVINCE S.J. Mabeba | 650 |
| 113 | EFFECT OF PROCEDURAL JUSTICE ON THE RELATIONSHIP BETWEEN THE REWARDS SYSTEM AND INTENTION TO QUIT IN A SOUTH AFRICAN FINANCIAL SECTOR C. Mabaso, L.L. Ratau | 666 |
| 114 | THE RELATIONSHIP BETWEEN ETHICAL LEADERSHIP AND TEACHERS JOB SATISFACTION IN A DEVELOPING COUNTRY SETTING J. Mitonga-Monga, M.E. Mageza-Mokhethi, I.D. Kubulu | 679 |
| 115 | DEMOCRACY, ACCESS TO TECHNOLOGY AND INCOME INEQUALITY TRILEMMA IN SOUTH AFRICA O.N. Oladunjoye, N.A. Tshidzumba | 694 |
| 117 | DIMENSIONS OF ORGANISATIONAL CITIZENSHIP BEHAVIOURS THAT AFFECT EMPLOYEES' PERCEPTIONS OF SUCCESSFUL CAREERS IN A HIGHER EDUCATION INSTITUTION IN SOUTH AFRICA J.D. Ngo Ndjama, J. Van der Westhuizen | 711 |
| 118 | THE INVOLVEMENT OF ACADEMICS IN THE INSTITUTIONS' DECISION-MAKING AND THEIR IDENTIFICATION WITH A UNIVERSITY OF TECHNOLOGY IN SOUTH AFRICA J.D. Ngo Ndjama, J. Van der Westhuizen | 728 |
| 119 | THE EFFECTIVENESS OF TIKTOK INFLUENCERS IN PROMOTING EDUCATIONAL CONTENT CONSUMPTION AND ENGAGEMENT AMONG SOUTH AFRICAN YOUTH C.T. Lenyidi, K. Rabanye, M. Mothiba | 742 |
| 120 | TECHNOLOGY-ENABLED GENDER-BASED VIOLENCE: STUDENTS' EXPERIENCES AT A UNIVERSITY EIN SOUTH AFRICA B.H. Mutongoza, E.A. Hendricks | 759 |
| 123 | THE SPATIAL PLANNING ATTRIBUTES IN SOUTH AFRICAN URBAN AREAS: SPATIAL JUSTICE AND THE COMPLEXITIES OF FORCEFUL LAND EVICTIONS K. Rachekhu, N.J. Mokoela, K.A. Mashamaite | 770 |
| 124 | THE UNCONSTITUTIONALITY OF THE DIVORCE COURT'S DISCRETION TO TRANSFERS ASSETS AS PER THE DIVORCE ACT R. Prinsloo | 782 |
| 126 | A PRELIMINARY PROFILE OF PSYSICAL ESPORTS PARTICIPANTS IN SOUTH AFRICA C. Muller, A. Lennox, J. Bonnema, S.J. Roos | 792 |
| 127 | AN EXPLORATORY STUDY OF YOUNG ADULT'S PERCEPTIONS OF ADULTHOOD THROUGH SUBLIMINAL MESSAGING IN SELECTED TELEVISION CARTOONS K. Rabanye, C.T. Lenyidi, O. Maunatlala | 807 |

| ID | Paper Title and Author(s) | Page |
|-----|---|------|
| 129 | SKILLS DEVELOPMENT USING CASE STUDY TEACHING AND LEARNING METHOD: A CASE OF A STRATEGIC MANAGEMENT COURSE AT A UNIVERSITY IN SOUTH AFRICA M.K. Kimanzi | 824 |
| 137 | PROFESSIONAL LEARNING ACTIVITIES OF GRADE 10 MATHEMATICAL LITERACY TEACHERS DURING COVID-19 PANDEMIC: A CASE STUDY OF PIETERMARITZBURG CENTRAL CLUSTER V. Makwara, F.Q.B. Zulu | 835 |
| 139 | ANALYSING THE INTERRELATIONSHIP BETWEEN SUSTAINABILITY REPORTING AND COMPANY-SPECIFIC ATTRIBUTES OF ZSE-LISTED COMPANIES P. Korera, D. Schutte, M. Oberholzer | 851 |
| 140 | THE EFFECT OF DOMESTIC CREDIT ON ECONOMIC GROWTH OF SOUTH AFRICA N.E. Ratombo, I.P. Mongale | 865 |
| 141 | AN ANALYSIS ON THE EFFICACY OF SOUTH AFRICA'S CHAPTER 9 INSTITUTIONS IN UPHOLDING THEIR DEMOCRATIC MANDATE: A CASE OF THE SOUTH AFRICAN HUMAN RIGHTS COMMISSION (SAHRC) P. Molefe | 879 |
| 146 | CHALLENGES POSED BY COVID-19 PANDEMIC ON THE PSYCHOLOGICAL WELL-BEING OF ELDERLY PEOPLE IN THE EASTERN CAPE, SOUTH AFRICA. A CASE IN KEISKAMAHOEK VILLAGE J.G. Kheswa, N. Mase | 889 |
| 147 | THE EFFECT OF POVERTY AND UNEMPLOYMENT ON UNIVERSITY GRADUATES' MENTAL HEALTH IN NINE EAST AND SOUTHERN AFRICAN COUNTRIES J. Okello | 902 |
| 155 | AN ANALYSIS OF THE IMPLICATIONS OF MONETARY POLICY AND EXCHANGE RATE VOLATILITY ON INVESTMENT IN SOUTH AFRICA N.E. Ratombo, D.M. Kgomo | 918 |
| 156 | THE IMPACT OF BUSINESS CONFIDENCE, UNEMPLOYMENT, AND INFLATION ON SOUTH AFRICA'S ECONOMIC GROWTH T.A. Mashiane, D.M. Kgomo | 932 |
| 161 | THE <i>MODUS OPERANDI</i> OF HOUSE ROBBERY AND SUBSEQUENT RAPE: PERSPECTIVES FROM INCARCERATED OFFENDERS AT THE CORRECTIONAL CENTRES IN SOUTH AFRICA K. Phalane | 948 |
| 162 | DEVELOPING ENTREPRENEURSHIP SKILLS AMONG STUDENTS THROUGH TEACHING AND LEARNING E.F. Adanlawo, N.Y. Nkomo | 961 |
| 166 | EXPLORING THE POLICE VIEWS IN DEALING WITH FAMILY PARTNERS' CONFLICT CASE REPORTS IN LESOTHO C.F. Molefe, J. Mesuwini | 972 |
| 170 | ENTREPRENEURSHIP EDUCATION AND ENTREPRENEURIAL INTENTIONS AMONGST STUDENTS AT A SELECTED TVET COLLEGE IN SOUTH AFRICA M.J. Matsheke | 983 |

| ID | Paper Title and Author(s) | Page |
|-----------|---|-------------|
| 173 | DIGITALISATION AND HUMAN CAPITAL DEVELOPMENT NEXUS IN THE SADC REGION O.O. David, M. Maharaj | 1000 |
| 175 | THE RELATIONSHIP BETWEEN HUMAN RESOURCE MANAGEMENT PRACTICES AND ORGANISATIONAL COMMITMENT IN SMALL MEDIUM ENTERPRISES K.M. Matlakala | 1018 |
| 179 | HOW HAS COVID-19 AFFECTED THE MANAGEMENT OF EMERGING FARMING OPERATIONS IN SOUTH AFRICA? J.N. Lekunze | 1028 |
| 180 | SUSTAINABLE ENTREPRENEURSHIP: A SYSTEMATIC LITERATURE REVIEW E.M. Rankhumise, P.M. Tladi | 1048 |
| 181 | PERCEPTION OF STUDENTS ON THE EFFECTIVENESS OF FPB'S MANDATE ON CURBING ONLINE HARM M.M. Mothiba, O. Ngake, O. Maunatlala | 1058 |
| 182 | EXPLORING THE ROLE OF COMMUNITY RADIO IN FACILITATING PARTICIPATORY COMMUNICATION FOR SOCIAL CHANGE M. Siphuma, O. Ngake, A.N. Tshidzumba | 1071 |
| 184 | SPILOVER EFFECTS OF FOREIGN EXCHANGE MARKET AND FINANCIAL DEVELOPMENT IN AFRICA A.O. Noah, O.O. David, W. Grobler | 1084 |
| 185 | PSYCHOLOGICAL WELL-BEING THROUGH THE LENS OF THE UNEMPLOYED GRADUATES IN THE EASTERN CAPE, SOUTH AFRICA J.G. Kheswa, L. Bacela | 1101 |
| 186 | EXPLORING FORCED INNOVATION AND CONTINUOUS IMPROVEMENT IN THE HOSPITALITY INDUSTRY DURING COVID-19 P. Chihwai, K. Dube | 1114 |
| 190 | INVESTIGATING THE POTENTIAL OF BIG DATA ANALYTIS THROUGH DIGITAL TRANSFORMATION FOR POLITICAL CAMPAIGNS, SOUTH AFRICA P. Ramafi, G. Baduza, L. Penxa | 1127 |
| 191 | REPORTING THE PERCEPTUAL DIFFERENCES OF WEARABLE ACTIVITY TRACKERS AMONG STUDENTS REGISTERED AT THREE TYPES OF UNIVERSITIES IN SOUTH AFRICA C. Muller | 1148 |
| 195 | INTRAPRENEURIAL C-SUITE: THE SOLUTION FOR HIGH-PERFORMANCE STATE-OWNED ENTERPRISES IN DEVELOPMENTAL STATES L.T. Chamba, H. Zhou | 1163 |
| 203 | THE INFLUENCE OF MACRO-ENVIRONMENTAL FACTORS ON STRATEGY IMPLEMENTATION IN A STATE-OWNED ENTERPRISE K. Ratlhagane, D.H. Boikanyo | 1180 |
| 208 | MANAGING EMPLOYEE PERFORMANCE: A FOCUS BEYOND ORGANISATIONAL FACTORS E.M. Chigo | 1196 |
| 210 | MOTIVATION AND BARRIERS TO ENTREPRENEURSHIP PROPENSITY AMONG DIGITAL SKILL TRAINING PARTICIPANTS IN NIGERIA C.M. Adelowo, J.B. Surujlal | 1208 |

| ID | Paper Title and Author(s) | Page |
|-----------|--|-------------|
| 219 | USING LANGUAGE TO BUILD AUTHENTICITY WITH CONTENT MARKETING C. du Plessis | 1225 |
| 222 | THE MEDIATING ROLE OF ORGANISATIONAL SUPPORT AND FAIRNESS IN THE RELATIONSHIP BETWEEN JOB SATISFACTION AND AFFECTIVE COMMITMENT C. Mabaso, D.V. Mogoai | 1239 |
| 224 | UNCOVERING THE KEY CHALLENGES FACED BY WOMEN IN THE SOUTH AFRICAN POLICE: A POLICY-RELEVANT DIALOGUE D. Khosa | 1253 |
| 231 | THE EFFECTS OF ACCOUNTING INFORMATION SYSTEMS ON DATA QUALITY WITHIN MUNICIPALITIES IN SOUTH AFRICA B. Ismaila, J. Beneke | 1267 |
| 235 | SUSTAINABLE BUSINESS PERFORMANCE AND INTANGIBLE ASSETS: EVIDENCE FROM SELECTED AFRICAN COUNTRIES R.O. Iliemena, J.M. Amedu | 1282 |
| 236 | DEVELOPING AN ONLINE TRAINING MODEL FOR LECTURERS AT HIGHER EDUCATION INSTITUTIONS L. Rajagopaul, N. Mouton, V. Leendertz | 1294 |

SSIRC 2023-001**THE DETERMINANTS OF BUSINESS RESCUE: ESKOM AND SOUTH AFRICAN AIRWAYS (SAA)****L. Nkosi**

University of South Africa

ABSTRACT

According to the Companies Act 71 of 2008, when a company is insolvent and faces the likelihood of liquidation, it requires business rescue. This is the case with several State-Owned Enterprises (SOEs), most notably, Eskom and South African Airways (SAA). SOEs have seldom been analysed according to one set of elements or factors that can inform, if and how, most are at the point of insolvency and possible liquidation. SAA is the first SOE to be put under business rescue. While it has been experiencing a protracted period of organisational decline, it is noteworthy to analyse how it came to this point. Such an analysis will be useful not only for SAA but also to identify future SOEs at risk of business rescue. This is an exploratory, qualitative study that used a case study approach with various data sources. The study found that the strongest determinant of business rescue for SAA is the entity's age; its industry and market structure; state ownership as well as its surrounding regulation and legislation. However, for Eskom, the strongest determinant of business rescue is its age and ties to social welfare. Remedial measures can entail stability regarding board membership and Public Finance Management Act 1 of 1994 (PFMA) flexibility for SAA, since it operates in a highly competitive market structure. For Eskom, remedial measures can include an overhauling of its governance structure; continued debt collection; accelerated completion of power stations and management stability.

KEYWORDS: Business rescue; Eskom; SAA; PFMA; Companies Act 71 of 2008.

1. INTRODUCTION**1.1. State-Owned Enterprises (SOEs) in South Africa**

State-owned enterprises operate within several realms of legislation, namely the Companies Act 71 of 2008, the PFMA of 1999 and various regulatory authorities according to their different industries (Naidoo, Patel, & Padia, 2018). While several are listed on the Johannesburg Stock Exchange (JSE), their performance would have deemed them insolvent and subsequently liquidated if their major shareholder was not the state. This is a burden to the state because of the general organisational decline of SOEs.

1.2 Business Rescue

The current trends in the life cycle of businesses, whether private or SOE, are showing that companies do not have an infinite life span and often encounter business failure. As a result, global trends are moving more towards business rescue. The COVID-19 pandemic has also propelled the speed at which businesses are facing this crisis. The Business Rescue and Compromise with

Creditors, Chapter 6 of the South African Companies Act 71 of 2008 was introduced in April 2009, but only came into effect on the 1st of May 2011 (Rajaram, Singh, & Sewpersadh, 2018:1).

The purpose of business rescue is to rehabilitate a company in financial distress. This financial distress is associated with insolvency or the inability of the company to pay its debt for the next 6 months (Conradie & Lamprecht, 2018: 4). Once financial distress is established, a business rescue practitioner (BRP) is employed to usher the company back into financial health (Cassim, 2020: 202). The BRP compiles a comprehensive business rescue plan that must be supported by the company's various stakeholders, including the creditors, before it can be given approval in court. Thus, a business rescue plan is a prominent feature of business rescue proceedings.

While Pretorius and Rosslyn-Smith's (2014) study is slightly dated, it is crucial in advising that the primary purpose of a business rescue is to ensure that the company continues to exist on a solvent basis or to provide a better return on investment for the creditors and shareholders than ordinarily from a liquidation. The literature points to several justifications for business rescue, some of which include preserving a viable enterprise, preserving jobs, protecting a specific industry of strategic importance and even the harmonisation of insolvency regulations (Verdoes & Verweij, 2018: 401).

Business rescue has its influences from international regimes such as those of the United Kingdom, United States, Australia, and Canada. The United Kingdom uses the UK Insolvency Act (1986) which is very similar to South Africa's Companies Act (2008).

The United States of America (USA) is guided by the Chapter 11 of the Bankruptcy Code 1978 in its business rescue practice (Pretorius & Rosslyn-Smith, 2014). Their business rescue is referred to as a reorganisation plan. The plan is worked out with creditors and is enforced through a moratorium. In the USA, shareholders do not have much of a say when a company undergoes reorganisation and its insolvency law is considered more debtor friendly (Pretorius & Rosslyn-Smith, 2014:113).

Australia's Corporations Act (2005) was designed to be swift and efficient by eliminating almost any court involvement (Pretorius & Rosslyn-Smith, 2014: 119). Canada has two options for restructuring an insolvent business. Firstly, is the Bankruptcy and Insolvency Act (1985) which is not very popular in the country. The second option is the Canadian Companies' Creditors Arrangement Act (1985) which has debt-friendly principles and proceedings are carried out under the supervision of the court which has a final say in approving the business rescue plan (Pretorius & Rosslyn-Smith, 2014: 122).

1.3 Public Finance Management Act (PFMA)

In South Africa, the Public Finance Management Act 1 (PFMA) of 1999 is a crucial piece of legislation which governs the finances and management of entities in the public sector (PFMA No.1, 1999). It not only governs, but seeks to achieve, the objective of good service delivery, accountability, transparency, and the efficient use of public resources across all levels of the public sector. As such, it also applies to SOEs and their daily operations. The PFMA recognises public entities listed under Schedule 2 as major public entities. These entities include but are not limited to Eskom and SAA (PFMA No.1, 1999: 71). It is important to note that Eskom and SAA operate

legislatively in line with this act as well as National Energy Regulator of South Africa (NERSA) regulations and the South African Civil Aviation Authority, respectively.

1.4 Eskom

Eskom has been the backbone of the economy by being a major supplier of electricity across all sectors. Most notably, Eskom has been instrumental in the prosperity of the country's mining industry, especially during the discovery of gold, which was largely associated with a strong South African Rand (Mohr, 2016).

The Electricity Supply Commission, now Eskom, was established in 1923 and is regulated by NERSA. NERSA is also responsible for approving or rejecting applications for tariff increases from Eskom.

Eskom uses coal-based technology to produce electricity and is a monopoly in South Africa's energy sector which includes generation, transmission, and distribution (Gigler & McMillan, 2018: 1). Eskom played a developmental role when it was used as part of the National Electrification Programme just prior to democracy. The programme not only gave many previously disadvantaged communities access to electricity, but it was also a display of equity and inclusion. However, according to Nkosi (2020), Eskom's working capital is negative and it has only been experiencing increases in revenue from increasing electricity tariffs rather than sales. Eskom's funds have also been historically diverted away from maintenance to capital projects (Parliamentary Monitoring Group, 2021). This contributes to Eskom's ageing facilities. Overall, all these factors signal red flags for Eskom and might likely result in business rescue in future.

1.5 South African Airways (SAA)

SAA has also played a critical role as an air freight. Not only has it contributed to domestic and international tourism, but its supply chain and trade flows have made significant contributions to the economy.

South African Airways (SAA) was founded in February 1934 when the government took over Union Airways of South Africa (Dongwana & Matuson, 2020: 23). While SAA is currently a state-owned company, from 1999 to 2002, Swiss Air held 20% of SAA's equity after which it became completely state-owned again (SAA Business Recue Plan, 2020: 23). Since SAA is in the airline industry, it is regulated by the South African Civil Aviation Authority and is legislated by the Civil Aviation Act of 2003.

However, SAA commenced a voluntary business rescue from the 5th of December 2019. This was due to persistent losses made by the group and being technically insolvent in 2018, where its liabilities exceeded its assets by R17,802 billion (Julies, 2018). Prior to the business rescue, the SOE had also accessed R11,8 billion from the National Treasury in the form state guaranteed loans in 2017/2018 (Julies, 2018). Corporate governance was also a challenge at SAA with the SOE having submitted their last financial results in the 2017/2018 financial year. To date there has been no publicly available report. The high board member turnover contributed even further to the voluntary business rescue.

2. THEORETICAL FRAMEWORK, METHODOLOGY AND QUALITATIVE ANALYSIS

2.1. Theoretical Framework

There are several theories related to the firm, which include but are not limited to transaction costs theory, agency theory and stakeholder theory. The broad theoretical framework of this study is centred around agency theory. Agency theory is a body of literature which details the contractual conflict in the principal-agent relationship where the principal is a shareholder of a firm and the agent is the manager (Eisenhardt, 1989; Lipczynski, Wilson, & Goddard, 2013). When the agent continually pursues his own interest, as opposed to that of the principal, the firm encounters a scenario of adverse selection. Moral hazard also occurs when the interests of the agent supersede that of the principal.

Given the fact that SOEs are owned by the state, this makes the state the principal and CEOs, Executives and Board Members become the agents. The fact that SAA entered into business rescue is a sheer outcry of the inability of the agent to meet the principal's expectations of high performance, productivity, and efficiency.

The study is also of the view that stakeholder theory is important as a theoretical underpinning in the business rescue process. This is due to the several stakeholders involved. These stakeholders include the company (debtor), its creditors, the business rescue practitioner, its employees, labour unions, and the judicial system (Mbo & Adjasi, 2017).

2.2. Methodology

This study is an exploratory, qualitative research that used a case study approach. The purpose of an exploratory study is to provide reasonably new information as well as describe certain events and situations (Babie & Mouton, 2010; Korstjens & Moser, 2018). This is because it seeks to identify elements of an SOE which can be an indicator of business rescue. According to Crowe et al., (2011) a case study approach is particularly useful when a researcher seeks to gain insight into a deep issue, event, or phenomenon of interest. As such, the study has chosen two case studies, namely Eskom and SAA. Eskom was chosen because it has the potential to enter business rescue, while SAA was chosen because it has already undergone the process. The approach of this study implies that it uses purposive sampling. According to Sharma (2017), purposive sampling or judgmental sampling, can allow the researcher to make generalisations from the sample, which is studied, whether it is theoretical, analytical, or logical. This study has used purposive sampling by choosing Eskom and SAA, and a constant comparative analysis was done in the data analysis (Chun Tie, Birks, & Francis, 2019). The qualitative aspect of the study conducted a content analysis of various documents related to the SOEs. These documents are mainly their annual reports and financial statements, but also include media briefings, policy documents such as the Companies Act, the PFMA and National Energy Regulator Act. Qualitative analysis has the advantage of bringing rich insight and new ideas about a phenomenon. The qualitative aspects of business rescue, that were analysed, include industry and market structures; state ownership; social welfare as well as legislation and regulation. While the age of an SOE is a quantifiable aspect, the qualitative aspect features from the ageing of infrastructure of the entity and to what degree that ageing is.

2.3 Data Sources

Backster and Jack (2008) note that a case study approach uses various data sources. The study collected a wide variety of data sources such as annual reports; journal articles; Portfolio Committee reports; published academic books; online resources such as the World Bank Library and the International Finance Corporation. Legislative documents such as the PFMA No. 1 (1999); the Companies Act No. 71 (2008); National Regulator Act (2004); Civil Aviation Act No. 13 of 2009 were also chosen as data sources.

2.4 Qualitative Data Analysis

A study by Pretorius and Holtzhausen (2013) has explored the concept of verifier determinants of business rescue amongst private companies. They have categorised them according to management, strategic decision making, finance, banking, operations, and marketing. However, to the best knowledge of the researcher, there has not been a study on verifier determinants for identifying South African SOEs at risk of business rescue. The most appropriate determinants of business rescue for SAA and Eskom are listed in Table 1 below. The checking of a determinant indicates that it can contribute to the SOE's risk of business rescue, while a cross indicates that the determinant has no influence.

Table 1: Determinants of Business Rescue

| Determinant | SAA | Eskom |
|--------------------------------|-----|-------|
| 1. Age | ✓ | ✓ |
| 2. Industry & Market Structure | ✓ | x |
| 3. State Ownership | ✓ | x |
| 4. Social Welfare | x | ✓ |
| 5. Legislation & Regulation | ✓ | x |

Source: Author (2023) from qualitative analysis of various data sources

After a thorough analysis of the chosen data sources, the following was ascertained:

2.4.1. Age

SAA and Eskom were both established around the 1930s. This has an impact most importantly on their infrastructure and whether it is of viable quality to be sustained for another decade. Both entities have this factor as a risk, however, it is Eskom which has the highest risk. It is well known that Eskom's power stations are failing. The recent bout of load shedding from November 2022 to date held the entire country hostage. The constant response or statement given by Eskom was failure at various power stations due to failing infrastructure such as explosions at Medupi (Makungo, 2023).

2.4.2. Industry and Market structure

The airline industry is incredibly dynamic and has greatly evolved since the 1930s (Ward, 2011). There are not only domestic flight paths but also regional and continental. The sanctions against South Africa in the 1980s gave the airline the luxury of being sluggish as far as competitiveness was concerned. However, since then, the competition in the industry has grown exponentially. The Arab Emirates and Ethiopian Airlines alone are key industry players that force SAA to be agile and

relevant. Eskom on the other hand is not affected in this instance. Since it is a monopoly in the energy industry, it has no market structure to compete with, especially when generation and transmission are concerned. Independent Power Producers (IPPs) do not have a market share that could destabilise Eskom and only a few municipalities distribute their own electricity.

2.4.3. State Ownership

State ownership was SAA's Achilles heel. The ownership of SAA, by the state, meant its agility is constrained because as an agent, the company could not make critical decisions without consulting with the principal (Lypczynski et al., 2013). The principal being the state. Perhaps under Takatso consortium, SAA will be more empowered to make significant changes to the business as the consortium is now the majority shareholder with a 51% ownership of the enterprise. State ownership is also a risk for Eskom because of the political interference at Eskom's operations. The state has not allowed Eskom's operations to be led by engineers (who are the experts in this entity) but instead by the Eskom board which is highly unstable and not given enough autonomy to propel Eskom forward. It is important to know that both governments, before and after 1994, have constantly interfered at Eskom, and this is a significant cause for the current electricity crisis.

2.4.4. Social Welfare

It is only Eskom that contributes to social welfare, which entails creating access to power especially to previously disadvantaged households in South Africa. Prior to 1994, Eskom had surplus power due to the power supply being purposely limited to one set of the population. This surplus could be maintained because it was being given to a minority group. However, after 1994, electricity had to be accessed by all through the National Electrification Programme (Bekker, Eberhard, Gaunt & Marquard, 2008.). This programme was extensively used by politicians in the early 2000s inadvertently to garner and maintain political support. However, Eskom *did* communicate an imminent load shedding soon because of high electricity demand with no recovery of costs. Thus, the energy producer is facing dire threats to energy supply, in part, because of the National Electrification Programme which was free, and the state was not prudent enough to invest in energy supply to avoid the eventuality of load shedding. SAA is a profit generating company therefore it has no ties to social welfare (Nyatumba & David Pooe, 2023).

2.4.5. Legislation and Regulation

Lastly, regulation and legislation have a significant role in SAA's business rescue. For instance, when Arab Emirates procures the latest aircraft, SAA must wait for procurement processes guided by the PFMA to match the competition (PFMA, 1999: 53). A business in such a highly competitive industry cannot operate so sluggishly due to protracted government processes. Eskom on the other hand is unaffected by legislation and regulation. Firstly, because it is regulated by NERSA, which always approves applications for electricity price increases after being pressured by the state. Secondly, it has no competitors to create the space for regulation. Lastly, legislation will always be lax for the entity due to state interference.

3. CONCLUSION

The determinants of business rescue are a key tool for observing SOEs, which might find themselves undergoing the process soon or perhaps decades from now. These determinants can be used to avert

such a scenario and encourage the SOE to take remedial actions such as changing its operations; governance structures; financial results and any other factor which can help to avoid business rescue. For Eskom, remedial measures include continued debt collection not only domestically from municipalities and the famous Soweto but also from countries in the Southern African Power Pool. There also needs to be an accelerated completion of power stations and to explore renewable energy as an addition to energy supply. And the most important factor, which can avert Eskom's business rescue, is management stability. The involvement of Takatso consortium is one which shows promise after SAA's business rescue process has been completed. However, while it is now owned by the consortium, the state is still a 49% shareholder. So remedial measures for SAA can entail PFMA flexibility and agility since the airline operates in a highly competitive market structure. Lastly, there needs to be stability regarding the board membership.

REFERENCES

- Babbie, E. & Mouton, J. (2010). *The Practice of Social Research*. 10th Edition, Oxford University Press Southern Africa: Cape Town.
- Baxter, P. & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, 13(4): 544-559.
- Bekker, B., Eberhard, A., Gaunt, T. & Marquard, M. (2008). South Africa's rapid electrification programme: Policy, institutional, planning, financing, and technical innovations. *Energy Policy*, 36(8): 3125-3137. DOI: <https://doi.org/10.1016/j.enpol.2008.04.014>
- Cassim, F.M. (2021). South African Airways makes an emergency landing into business rescue: Some burning issues. *South African Law Journal*, 137(2): 201-214.
- Chun Tie, Y., Birks, M. & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. *SAGE Open Medicine*, 7, 2050312118822927. <https://doi.org/10.1177/2050312118822927>
- Conradie, S. & Lamprecht, C. (2018). What are the indicators of a successful business rescue in South Africa? Ask the business rescue practitioners. *South African Journal of Economic and Management Sciences*, 21(1): a1726. DOI: doi:10.4102/sajems.v21i1.1726
- Crowe, S., Cresswell, K., Robertson, A. et al. (2011). The case study approach. *BMC Medical Research Methodology*, 11: 100. DOI: <https://doi.org/10.1186/1471-2288-11-100>
- Dongwana, S. & Matuson, L. (2020). South African Airways Business Rescue Plan (2020). Available at: <https://matusonassociates.co.za/wp-content/uploads/2019/12/South-African-Airways-SOC-Limited-Business-Rescue-Plan.pdf> (accessed on 12 February 2023).
- Eisenhardt, K.M. (1989). Agency Theory: An Assessment and Review. *The Academy of Management Review*, 14(1).
- Gigler, A. & McMillan, L. (2018). The impact of rising electricity tariffs on large firms in South Africa. United Nations University World Institute for Development Research, WIDER Working Paper 2018/32.
- Gujarati, D.N. (2004). *Basic Econometrics*, 4th Edition. London: McGraw-Hill Companies.
- Hausman, J. (1978). Specification Tests in Econometrics. *Econometrica*, 46: 1251-1271.

-
- Hyman, D. (2011). *Public Finance: A Contemporary Application of Theory to Policy*, 10th Edition. Ohio: South-West Cengage Learning.
- IFC (International Finance Corporation). (2020). *Leadership Training Toolkit for State-Owned Enterprises (SOEs)*. Available at: https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+cg/resources/toolkits+and+manuals/soe+leadership+toolkit (Accessed on 5 March 2023).
- Julies, A. (2018). State Owned Companies Governance: Investment and Financing. GTAC Winter School, South African Reserve Bank.
- Kaizer, M., Nyatumba & R.I. David Pooe. (2023). Failure to implement a turnaround strategy at South African Airways: Reflections from strategic players. *Development Southern Africa*, 40(1): 76-90, DOI: 10.1080/0376835X.2021.1965865
- Lin, K.J., Lu, X., Zhang, J. & Zheng, Y. (2020). State-owned enterprises in China: A review of 40 years of research and practice. *China Journal of Accounting Research*, 13: 31-55.
- Kikeri, S. (2018). World Bank e-library. Republic of South Africa Systematic Country Diagnostic an Incomplete Transition: Overcoming the Legacy of Exclusion in South Africa Background note. Corporate Governance in South African State-Owned Enterprises.
- Korstjens, I. & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1): 120-124, DOI: 10.1080/13814788.2017.1375092
- Lipczynski, J., Wilson, J.O.S. & Goddard, J.A. (2013). *Industrial organization*, 4th Edition. Harlow, England: Pearson.
- Makungo, M. (2023). Medupi Power Station's design 'flaws' deliberate to cost taxpayers money. Available at: <https://www.sabcnews.com/sabcnews/deliberate-design-flaws-at-medupi-power-station-to-cost-taxpayers-millions/> (accessed on 28 March 2023).
- Mbo, M., & Adjasi, C. (2017). Drivers of organizational performance in state owned enterprises. *International Journal of Productivity and Performance Management*, 66(3): 405-423.
- Mohr, P. (2016). *Economic Indicators*, 5th Edition. Pretoria: Van Schaik Publishers.
- Naidoo, T., Patel, A. & Padia, N. (2018). Business rescue practices in South Africa: An explorative view. *Journal of Economic and Financial Sciences* 11(1): 1- 9 , DOI: <https://doi.org/10.4102/jef.v11i1.188>
- Ngwenya, S. & Khumalo, M. (2012). CEO compensation and performance of State-Owned Enterprises in South Africa. *Corporate Ownership & Control*, 10(1): 97- 109.
- Nkosi, L. (2020). The Relationship between Government Debt and State-Owned Enterprises: An Empirical Analysis of Eskom. *International Journal of Economics and Finance Studies*, 12 (1): 119-134.
- Parkin, M., Antrobus, G., Baur, P., Bruce-Brand, J., Kohler, M., Neethling, L., Rhodes, B., Saayman, A., Schoer, V., Scholtz, D., Thompson, K. & Van der Merwe J. (2013). *Global and Southern African perspectives: Economics*, 2nd edition (African edition). Cape Town: Pearson Education.
- Parliamentary Monitoring Group. (2021). *Challenges facing SOEs, including non-tabling of annual reports & impact of COVID: with DPE Ministry*, Cape Town
-

-
- Pretorius, M. & Holtzhausen, G. (2012). Business rescue decision making through verifier determinants – Ask the specialists. *South African Journal of Economic and Management Sciences*, 16: 468-485. DOI: 10.4102/sajems.v16i4.450.
- Pretorius, M. & Rosslyn-Smith, W. (2014). Expectations of a business rescue plan: international directives for Chapter 6 implementation. *Southern African Business Review*, 18(2): 108-137.
- Public Finance Management Act. (1999). *PFMA No. 1 of 1999*. Available at: <http://www.treasury.gov.za/legislation/pfma/act.pdf> (accessed 18 June 2019).
- Qi, H. & Kotz, D.M. (2020). The Impact of State-Owned Enterprises on China's Economic Growth. *Review of Radical Political Economics*, 52(1): 96-114.
- Rajaram, R., Singh, A.M. & Sewpersadh, N.S. (2018) Business rescue: Adapt or die. *South African Journal of Economic and Management Sciences* 21(1): a2164.
DOI: <https://doi.org/10.4102/sajems.v21i1.2164>
- Republic of South Africa. (2008). *Companies Act No.71 of 2008*. Pretoria: Government Printer.
- Saravia, J.S., Garcia, C.M. & Almonacid, P.M. (2021). The determinants of systematic risk: A firm lifecycle perspective. *International Journal of Financial Economics*, 26: 1037-1049.
- Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, 3(7): 749-752.
- Verdoes, T.L.M.& Verweij, A.M. (2018). The (Implicit) Dogmas of Business Rescue Culture, *Journal International Insolvency Review*, 27(3): 398–421.
- Ward, M. (2021). South African Airways–born again? *Emerald Emerging Markets Case Studies*, 11(4): 1-11.

SSIRC 2023-002**CONTRIBUTIONS OF JUST-IN-TIME (JIT) APPROACH TOWARD INVENTORY COSTS, INVENTORY MANAGEMENT, AND BUSINESS PERFORMANCE: PERSPECTIVES FROM TWO CASE STUDIES IN A SOUTH AFRICAN ENVIRONMENT****S. Govuzela**

Vaal University of Technology, South Africa

ABSTRACT

In today's competitive global business environment, the goal of all businesses is long-term survival. A business's survival in an increasingly competitive market closely depends upon its ability to successfully eliminate waste, reduce inventory costs, and improve inventory management and business performance. The JIT approach was established to accomplish this goal. In competitive business environments, businesses employ the JIT approach to improve inventory management. Irrespective of pressure from competitors, most businesses have failed to employ the JIT approach philosophy to successfully eliminate waste, reduce inventory costs and improve inventory management and business performance. Many businesses have over the past years tried to employ the JIT approach to successfully eliminate waste, reduce inventory costs, and improve inventory management and business performance. This makes the JIT approach the most tried philosophy to successfully eliminate waste, reduce inventory costs and improve inventory management and business performance. The aim of this paper was to investigate the contributions of the JIT approach toward inventory costs, inventory management and business performance. Qualitative research was employed in this study. An extensive literature review on the JIT approach, inventory, inventory costs, inventory management and business performance were used in this study. Two case studies were also used in this study. An extensive literature review and the two case studies revealed that the JIT approach can eliminate waste and reduce inventory costs. The study also showed that the JIT approach can improve inventory towards inventory costs, inventory management and business performance. The study concludes that the JIT approach contributes positively towards inventory costs, inventory management and business performance. The study also concludes that the JIT approach can successfully eliminate waste.

KEYWORDS: just-in-time, inventory costs, inventory management, business performance, business environment.

1. INTRODUCTION

In today's competitive global business environment, the goal of all businesses is long-term survival. A business's survival in an increasingly competitive market closely depends upon its ability to successfully eliminate waste, reduce inventory costs, and improve inventory management and business performance. The JIT approach was established to accomplish this goal. In competitive business environments, businesses employ the JIT approach to eliminate waste, reduce inventory costs, and improve inventory management and business performance.

Irrespective of pressure from competitors, most businesses have failed to employ the JIT approach philosophy to eliminate waste, reduce inventory costs and improve inventory management and business performance. Many businesses have over the past years tried to employ the JIT approach to eliminate waste, reduce inventory costs and improve inventory management and business performance. This makes the JIT approach the most tried philosophy to eliminate waste, reduce inventory costs and improve inventory management and business performance. By employing this philosophy, waste can be eliminated, inventory costs can be reduced, and inventory management and business performance can be significantly improved.

The Japanese established and developed the JIT approach philosophy. Businesses that are not Japanese are therefore inclined to modify certain aspects of the JIT approach to integrate it fully and seamlessly into their processes to successfully improve inventory management. The JIT approach has principles, methods, and guidelines that businesses can implement to successfully eliminate waste, reduce inventory costs, and improve inventory management and business performance. This study will focus on a literature review and two case studies to indicate how businesses can employ the JIT approach to successfully eliminate waste, reduce inventory costs, and improve inventory management and business performance.

2. LITERATURE REVIEW

2.1 Just-In-Time (JIT) Approach Philosophy

The philosophy of the JIT approach has been studied for more than 20 years. There are lots of academic articles and case studies which give the objectives, backgrounds, principles, and techniques of JIT (Taghipour, Hoang and Cao, 2020). The JIT approach was introduced in Japan under the name of Kanban. It is generally associated with a Japanese businessman called Taichii Ohno who introduced this JIT approach to meet the needs of the Japanese automobile market after World War II (Franco and Rubha, 2017).

The JIT approach is a Japanese management philosophy applied in manufacturing that involves having the right items of the right quality and quantity at the right place and at the right time. It has been widely reported that the proper use of the JIT approach has resulted in increases in quality, productivity and efficiency, improved communication and decreases in costs and waste. (Kootanaee, Babu and Talari, 2013). Although precisely defining the JIT approach continues to be perplexing, the JIT approach is generally referred to as a manufacturing system for achieving excellence through continuous quality improvements. Regarding productivity, the rework of manufactured products and waste has a direct impact on the profits of a company (Van Wyk and Naidoo, 2016).

According to Mankazana and Mukwakungu (2018), the JIT approach is a materials management approach of delivering the exact number of materials at the exact time when needed. Mankazana and Mukwakungu (2018) indicate that according to a study undertaken between 1981 and 2000 in the US, it was found that manufacturing companies with fewer materials in the warehouse are more efficient than those with more materials in the warehouse. Thus, it was found that a business that keeps moderate materials in the warehouse can successfully eliminate unnecessary inventory costs. Franco and Rubha (2017) indicate that the JIT approach is both a philosophy and a set of methods

for manufacturing. According to this concept, materials are supplied to the workstation just at the time that they are required for use.

The JIT approach is a philosophy that relates to the manufacturing industry, which plans to dispose of waste, as waste is or results from any action that adds cost to the process of production without essentially increasing the value of the item being produced (Mukwakungu, Mabasa, Mankazana, Mzileni and Burakeye, 2019). The JIT approach started as a method of reducing inventory levels within Japanese shipyards. Today, the JIT approach has evolved into a management philosophy containing a body of knowledge and encompassing a comprehensive set of manufacturing principles and techniques. The JIT approach has the capacity, when properly adapted to the business, to strengthen the business's competitiveness by substantially reducing waste and improving product quality (Kootanaee, Babu and Talari, 2013). Unam (2012) indicates that the JIT approach emphasises the delivery of precisely the required number of materials at the right time and precisely where they are needed. Thus, the usual wasteful practice of storing materials many weeks or months before they are needed is avoided. The beauty of the JIT approach is that materials are ordered and received at the right time just before the commencement of production.

2.2 Purpose of the JIT Approach

The purpose of the JIT approach is to eliminate the following wastes (Franco and Rubha, 2017):

- Waste of overproduction: Eliminate by reducing setup times, synchronising quantities and timing between processes, compacting layout, visibility and so forth. Make only what is needed now.
- Waste of waiting: Eliminate through synchronising workflow as much as possible and balance uneven loads by flexible workers and equipment.
- Waste of transportation: Establish layouts to make transport and handling unnecessary if possible. Then rationalise transport and material handling that cannot be eliminated.
- Waste of processing itself: Extend thinking beyond the economy of scale or speed, like why this part or product should be made at all, then why each process is necessary.
- Waste of stocks: Reduce by shortening setup times and reducing lead times, by synchronising workflows and improving work skills and even by smoothing fluctuations in demand for the product. Reducing all the other wastes reduces the waste of stocks.
- Waste of motion: Study motion for economy and consistency, economy improves productivity and consistency improves quality.
- Waste of making defective products: Develop the production process to prevent defects from being made to eliminate inspection. At each process, accept no defects and make no defects.

2.3 Objectives of the JIT Approach

An objective of the JIT approach is to improve profits and return on investment through cost reduction, inventory reduction and quality improvement. The involvement of workers and the elimination of waste are the means of achieving these objectives. The JIT approach is a production strategy that strives to improve a business's return on investment by reducing in-process inventory

and associated carrying costs (Dange, Shende, Sethia, 2016). According to Mankazana and Mukwakungu (2018), the JIT approach has the following four main objectives:

- To deliver goods at the right time for them to be sold
- To deliver sub-assemblies at the right time for them to be turned into a finished product.
- To deliver fabricated parts at the right time for them to be turned into sub-assemblies.
- To deliver purchased materials at the right time, at the right place.

2.4 Advantages of the JIT Approach

According to Taghipour, Hoang and Cao (2020), the JIT approach results in the reduction of inventory levels and storage space requirements. It facilitates a reduction in inventory levels and the associated inventory holding costs. Mankazana and Mukwakungu (2018) highlight the following benefits of the JIT approach within an organisation:

- **Less space needed:** There is a reduction in the amount of space the company will need. That space, which is now available, can be utilised for other profitable business activities.
- **Waste reduction:** A faster dispatch of inventory prevents the material from becoming damaged and turning into waste. This again decreases costs by preventing investment in unnecessary stock and reducing the need to replace unused damaged stock.
- **Decrease costs:** JIT approach helps businesses not to make major investments in materials, as materials will only be ordered and delivered when needed.

3. INVENTORY

Inventory is defined as the stock of items that are kept on hand by the business and are used to meet customer requirements (Penny, Mpwanya and Lambert, 2021). Inventory can be classified into the following three types (Afolabi, Onifade and Olumide, 2017):

- **Raw material inventory:** This includes all items purchased by an organisation for processing.
- **Work-In-Progress Inventory:** These are materials that have been partially processed.
- **Finished Goods Inventory:** This is the stock of finished goods that is ready for consumption.

Penny, Mpwanya and Lambert (2021) classify inventories into six different types. These are defined as follows:

- **Cycle stock:** This is an inventory that is generated for refilling purposes and is held to meet certain and predictable customer demand for a product.
- **In-transit inventories:** These are stocks moving from one point to another.
- **Safety or buffer stock:** This refers to excess inventory held to ensure uninterrupted production runs or deliveries to customers because of unpredictable, uncertain demand patterns of products.
- **Speculative stock:** This is inventory held for reasons other than meeting daily or current customer demand.
- **Seasonal stock:** This is a type of speculative stock and seeks specifically to maintain stable production runs and stable working conditions by accumulating year-round unavailable inventories before its consumption season starts.
- **Deadstock:** This is a type of inventory whose demand is non-existent.

3.1 Inventory Costs

Otchere, Adzimah and Aikens (2016) explain the following four costs associated with inventory:

- Item costs: These are simply the costs of the items that are held as inventory.
- Holding or carrying costs: These are costs associated with carrying items in inventory. They also include opportunity costs associated with having funds that could be used elsewhere tied up in inventory.
- Ordering costs: These are costs of ordering and receiving inventory, they are the costs that vary with the actual placement of an order.
- Shortage costs/stock-out costs: These results when demand exceeds the supply of inventory at hand.

4. CONCEPT OF INVENTORY MANAGEMENT

Inventories are the lifeblood and heart of any manufacturing organisation. They must be made available at the right price, at the right quantity, at the right quality, at the right place and at the right time to coordinate the production activities in an integrative way for an industrial undertaking. A manufacturing organisation will face challenges if inventories are understocked, overstocked, or in any way poorly managed (Keitany, Wanyoike and Richu, 2014). According to Jobin (2019), inventories are essential for living and leading a life. Management of necessary inventories without wasting money, time and effort plays vital importance in society, as we face a shortage of resources today.

Inventory management is defined as a set of predetermined activities of an institution, consisting of planning, sourcing, purchasing, transporting, storing, utilising, controlling and disposal or recycling of inventories in an optimum manner, aiming to provide quality care within the range of affordable costs to the customers without any interruption of service. Kaur (2016) states that inventory management is related to planning, procuring, storing, and providing the appropriate inventory of the right quality and right quantity at the right place and at the right time (Kaur, 2016). Inventory management encompasses all operations management functions from purchasing raw materials through the production processes to the final delivery of the end products. It brings together under one management responsibility for determining the manufacturing requirement, scheduling the manufacturing processes, and procuring, storing, and dispensing materials (Unam, 2012).

4.1 Aims of Inventory Management

The basic aim of inventory management is to ensure that the right item is ordered and delivered at the right time, at the right place and at the lowest possible cost (Unam, 2012). According to Kaur (2016), the aim of inventory management is to deliver the right quality and quantity of materials, at the right time, at the right place and at the right cost.

4.2 Benefits of Inventory Management

Inventory management improves organisational performance in meeting customer service requirements and at the same time adding to profitability by minimising costs and making the best use of available resources (Unam, 2012). Proper inventory management prevents the wastage of

time, plays a vital role in increasing the profit of the organisation, ensures the quality of inventories, increases the productivity of the employees, and minimises waste (Jobin, 2019).

5. CONCEPT OF BUSINESS PERFORMANCE

The definition of business performance remains vague, and the use of the term often differs according to the context in which it is being used; it appears to be difficult to define and measure. A general definition noted that it is the product of interactions of different parts or units in the organisation (Hussein, Mohamad, Noordin and Ishak, 2013). The definition of business performance and its measurements continue to challenge scholars due to its complexity (Santos and Brito, 2012). Different researchers have different thoughts about business performance. Mostly, researchers use the term business performance to express the range of measurements of transactional efficiency and input and output efficiency (Shahzad, Luqman, Kahn and Shabbir, 2012). Irrespective of the differences among researchers on the definition, they agree that it is mostly tied in with arithmetic measures of success (Eniola and Entebang, 2015).

Nowadays, the performance of the business is the first thing to be evaluated by investors around the world. Therefore, people who are responsible for running firms must improve business performance through new plans and procedures to enhance their operation (Al-Marari, Al-Swidi and Fadzil, 2014). Scholars have studied different variables that have an impact on business performance. They have found that there are many variables that affect business performance, such as entrepreneurial orientation, information technology, strategy, and others (Guo and Cao, 2012). Even if there are many various variables affecting business performance, leadership style and innovative factors have a considerable effect on business performance (Erdem, Gokdeniz and Met, 2011). Evidence from the literature suggests that strategic planning is one of the factors that can improve business performance (Sosiawani, Ramli, Mustafa and Yussoff, 2015).

Business performance growth reflects the achievement of organisational goals related to profitability and growth in sales and market share. Business performance has been measured in accounting terms such as profit, cost, and market share (Al-Ansari, 2014). However, it should be measured using both financial and non-financial terms to enable efficient strategic decision-making where non-financial terms focus on the long-term success of the firm, customer satisfaction, internal business processes efficiency and innovation (Avci, Madanoglu and Okumus, 2011).

6. PROBLEM INVESTIGATED

This study aimed to investigate the contributions of the JIT approach toward inventory costs, inventory management and business performance.

7. RESEARCH OBJECTIVES

This study aimed to investigate the contributions of the JIT approach toward inventory costs, inventory management and business performance. This research paper will identify the advantages and disadvantages of the JIT philosophy. It will identify whether JIT is a philosophy that South African firms will benefit from when it is implemented. The aim of this paper is to investigate whether the application of the JIT theory will provide an advantageous influence on the way inventory is managed in South Africa.

8. RESEARCH METHODOLOGY

8.1 Research Design

The research design refers to a framework for conducting a research project. It specifies the details of the procedures necessary for obtaining the information needed to structure and solve research problems (Hove, 2012). A research design is defined as a blueprint for the collection, measurement, and analysis of data, based on the research questions of the study (Sekeran & Bougie, 2010). It can initiate the information needed, the conceptual model, selected method, sampling method, sample size, measurement procedure and data analysis process, which plans and links collected data to the initial research question in the research study (Al-Ansari, 2014).

A qualitative research method was used in this study. Busetto, Wick and Gumbinger (2020) define qualitative research as the study of the nature of phenomena, including their quality, different manifestations, the context in which they appear or the perspective from which they can be perceived, but excluding their range, frequency, and place in an objectively determined chain of cause and effect. Qualitative research generally includes data in the form of words rather than numbers.

8.2 Data Collection

This investigation used a document study to collect data on the JIT approach, inventory, inventory costs, inventory management and business performance. Data were collected from articles, dissertations, the internet, theses, and textbooks. Electronic databases such as Emerald, Science Direct, EBSCO-Host, Nexus, Sabinet, and Sage were used as sources of data. Keywords were used to search for the relevant data in this document study.

Observation (non-participant and covert) was the best data collection method for this study because there will be less influence from the researcher and a clear and concise overview of an issue is more achievable in this way. Participants are more likely to behave 'normally' if they are not aware that they are being watched. The researcher is also less likely to influence the group (Mukwakungu, Mabasa, Mankazana, Mzileni and Burakeye, 2019).

8.3 Data Analysis

To analyse means to break down a whole into its components or constituent parts. Through the assembly of the parts, one comes to understand the integrity of the whole (Onwuegbuzie, Leech & Collins, 2012). Analysis of the literature takes one of two forms: within-study literature analysis or a between-study literature analysis. A within-study literature analysis involves analysing the contents of a specific work. In its most rigorous and comprehensive form, a within-study literature analysis does not merely involve analysing the findings of a study or the major premise used in a non-empirical work. Rather, optimally, it involves analysing every component of the work, including the title, literature review section, conceptual framework/theoretical framework, procedures used, results section and discussion section (Onwuegbuzie, Leech & Collins, 2012).

A within-study literature analysis was employed in this study to analyse the data collected. Keywords were also utilised to analyse the data in this document study. This study also used narrative analysis to analyse the collected data. According to Hotjar (2022), narrative analysis is a

method used to interpret research participants’ stories—things like testimonials, case studies, interviews and other text or visual data.

9. FINDINGS

This study aimed to investigate the contributions of the JIT approach toward inventory costs, inventory management and business performance. This aim was achieved by an extensive literature review and two case studies which revealed that the JIT approach contributes positively towards inventory costs, inventory management and business performance. This section discusses the results of the two case studies.

9.1 Case Study 1: Hewlett-Packard

Hewlett-Packard, which in the 1980s was one of the first firms to implement the JIT approach, conducted four case studies that involved four of their divisions. The four divisions had at that time some of the same measures. The results are shown in Table 1. The results show vast improvements in most of the divisions that implemented the JIT approach (Mukwakungu, Mabasa, Mankazana, Mzileni and Burakeye, 2019).

Table 1. Effective JIT Manufacturing at Hewlett-Packard

| Inventory reduction | 2.8 months | 75% | 75% | |
|---------------------------|------------------|--------------------------|---------------------|-------------------------|
| Labour cost reduction | 30% | 15% | | 50% |
| Space reduction | 50% | 30% | 33% | 40% |
| WIP cost reduction | 22 days to 1 day | | | |
| Production increase | 100% | | | |
| Quality improvement | | 30% scrap, 79% rework | 80% scrap | 30% scrap and rework |
| Throughput time reduction | | 50% | 17 days to 30 hours | |
| Standard hours reduction | 50% | | | |
| No. of shipments increase | | | | 20% |

Source: Mukwakungu, Mabasa, Mankazana, Mzileni and Burakeye, 2019

9.2 Case Study 2: Company X

A critical assessment of the implementation of the JIT approach within a company operating in South Africa is provided through this case study. In this case, the company where the JIT approach has been implemented is referred to as Company X. Company X comprises two distinct production plants whereby one plant implements the JIT approach, whereas the other plant does not. The collection of primary data, for the purpose of this study, was done through structured questionnaires, which were chosen and administered to the various technical staff as well as senior staff located at each plant. The questionnaires targeted a total of 120 employees and were distributed to 60 employees from both plants, with a total response rate of 30%. Primary data were utilised to contrast the profit generated from a production line that implements the JIT approach as opposed to a

production line that does not operate using the JIT approach (Mukwakungu, Mabasa, Mankazana, Mzileni and Burakeye, 2019).

Equally considered is the secondary data obtained from the financial records of Company X's production plants. This was performed to ascertain the rate of returns from sales, rework, as well as profit from the different lines of production. When it came to inventory saving at Company X, it was noted that Company X needed to secure supplies of goods in small lot sizes contrary to their normal large lot production sizes. Small sizes production was enabled by reducing set-up time. It has been found that the result of smaller batch sizes in the JIT approach leads to quality being improved, inventory being reduced, costs associated with manufacturing considerably dropping, a market that responds better and lastly, service that becomes faster in terms of the delivery of products (Mukwakungu, Mabasa, Mankazana, Mzileni and Burakeye, 2019).

10. CONCLUSION

This document study used two case studies involving Company X and Hewlett-Packard to investigate the contributions of the JIT approach toward inventory costs, inventory management and business performance. The results of the study indicate that the JIT approach has positive contributions toward inventory costs, inventory management and business performance. For this reason, the study concludes that the JIT approach has positive contributions toward inventory costs, inventory management and business performance. Based on the results obtained by Company X, it has been demonstrated that the JIT approach has a relationship that is proportional in a direct fashion to the firm's productivity and eventually the country's productivity.

The JIT approach can assist organisations in improving overall productivity and eliminating waste. It can provide for the cost-effective production and delivery of only the necessary quantity of parts of the right quality at the right time and place, while using the minimum amounts of facilities, equipment, materials, and human resources.

11. RECOMMENDATION

Given the major improvements at Company X and Hewlett-Packard, the JIT approach is beneficial and can work across cultural spheres. The JIT approach can positively impact the firm's overall performance. For these reasons, it is thus recommended that South African firms investigate implementing the JIT approach. By doing so they will be conducting their business on three key issues that define the core of the JIT philosophy, which are: the elimination of waste, the involvement of staff in the operation and the drive for continuous improvement. Firms should work on employing the JIT approach to enhance their inventory costs, inventory management and business performance.

In view of the study results, it is recommended that the South African firms adopt the JIT philosophy. By doing so, it will benefit by eliminating unnecessary inventory costs. It is also recommended that the South African firms should work on implementing the JIT approach to enhance its inventory levels. It is further recommended that this study be carried out in other South African firms as well.

REFERENCES

- Afolabi, O.J., Onifade, M.K. and Olumide, O.F. (2017). Evaluation of the role of inventory Management in the Logistics Chain of an Organisation. *Scientific Journal on Transport and Logistics*, 8(2).
- Al-Ansari, Y.D.Y. (2014). *Innovation practices as a path to business growth performance: A study of small and medium-sized firms in the emerging UAE market*. Ph.D. Dissertation. Lismore, NSW: Southern Cross University.
- Al-Marari, E.M., Al-Swidi, A.K. and Fadzil, F.H.B. (2014). The measurement of firm performance's dimensions. *Asian Journal of Finance and Accounting*, 6(1).
- Avci, U., Madanoglu, M. and Okumus, F. (2011). Strategic orientation and performance of tourism firms: Evidence from a developing country. *Journal of Tourism Management*, 32(1).
- Busetto, L., Wick, W. and Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*, 2(14).
- Dange, S.S., Shende, P.N. and Sethia, C.S. (2016). A Systematic Review on Just in Time (JIT). *International Journal of Scientific Development and Research*, 1(3).
- Eniola, A.A. and Entebang, H. (2015). Government policy and performance of small and medium business management. *International Journal of Academic Research in Business and Social Sciences*, 5(2).
- Erdem, B. Gokdeniz, A. and Met, O. (2011). The relationship between innovation and business performance: A case study of five-star hotel management in Antalya. *Faculty of Economy and Administrative Sciences Journal*, 26(2).
- Franco, C.E. and Rubha, S. (2017). An overview of JIT (Just-in-Time) – Inventory Management System. *International Journal of Research - Granthaalayah*, 5(4).
- Guo, Z.F. and Cao, L. (2012). An analysis of the degree of diversification and firm performance. *International Journal of Business and Finance Research*, 6(2).
- Hotjar. (2022). Five qualitative data analysis methods. Retrieved 22/03/2023 from <https://www.hotjar.com/qualitative-data-analysis/methods/>.
- Hove, P. (2012). *The impact of technological marketing on porter's competitive forces model and SMEs' performance*. (Master of Commerce), University of Fort Hare
- Hussein, N., Mohamad, A., Noordin, F. and Ishak, N.A. (2013). Learning organization and its effect on organizational performance and organizational innovativeness: A proposed framework for Malaysian public institutions of higher education. *Procedia – Social and Behavioural Sciences*, 130(1).
- Jobin, P.C. (2019). Materials management: A conceptual outlook. *International Journal of Advances in Nursing Management*, 7(4).
- Kaur, A. 2016. Materials Management. *Global Journal of Business & Management*. 1(2).
- Keitany, P., Wanyoike, D.M. and Richu, S. (2014). Assessment of the role of Materials Management on the organisational performance: A of a new Kenya cooperative Creameries Limited, Eldoret Kenya. *European Journal of Material Sciences*, 1(1).
- Kootanaee, A.J., Babu, K.N. and Talari, H.F. (2013). Just-in-Time Manufacturing System: From Introduction to Implement. *International Journal of Economics, Business, and Finance*, 1(2).

-
- Mankazana, S and Mukwakungu, S.C. (2018). The Impact of Just-in-Time (JIT) in Inventory Management System and the Supplier Overall Performance of South African's Bed Mattress Manufacturing Companies. *Proceedings of the International Conference on Industrial Engineering and Operations Management Pretoria / Johannesburg, South Africa*.
- Mukwakungu, S.C., Mabasa, M.D, Mankazana, S., Mzileni, X. and Burakeye, S.A. (2019). The Impact of Just in Time (JIT) in Inventory Management: Perspectives from Two Case Studies in a South African Environment. *Proceedings of the International Conference on Industrial Engineering and Operations Management Bangkok, Thailand*.
- Onwuegbuzie, A.J., Leech, N.L. & Collins, K.M.T. (2012). Qualitative analysis techniques for the review of the literature. *The Qualitative Report*, 17(28).
- Otchere, A.F., Adzimah, E.D. and Aikens, I. (2016). Assessing the Inventory Management Practices in a Selected Company in Ghana. *International Journal of Development and Sustainability*, 5, (3).
- Penny, A., Mpwanya, M.F. and Lambert, K.R. (2021). Investigating the Efficacy of Inventory Policy Implementation in Selected State-Owned Enterprises in the Gauteng Province: A Qualitative Study. *Journal of Transport and Supply Chain Management*, 15(0.)
- Santos, J.B., and Brito, L.A.L. (2012). Towards a subjective measurement model for firm performance. *Brazilian Administrative Review*, 9(6).
- Sekeran, U. and Bougie, R. (2010). *Research Methods for business – a skill building approach*. Fifth Edition. United Kingdom: John Wiley.
- Shahzad, F., Luqman, R.A., Kahn, A.R. and Shabbir, L. (2012). Impact of organizational culture on organizational performance: An overview. *Interdisciplinary Journal of Contemporary Research in Business*, 3(9).
- Sosiawani, I., Ramli, A.B., Mustafa, M.B. and Yussof, R.Z.B. (2015). Strategic planning and firm performance: A proposed framework. *International Academic Research Journal of Business and Technology*, 1(2).
- Taghipour, A., Hoang, P. and Cao, X. (2020). Just in Time/Lean Purchasing Approach: An Investigation for Research and Applications. *Journal of Advanced Management Science*, 8, (2).
- Unam, J.M. (2012). Materials Management for Business Success: The Case of the Nigerian Bottling Company Plc. *International Journal of Economics and Management Sciences*, 1(7).
- Van Wyk, G. and Naidoo, V. (2016). Critical assessment of Just-in-Time (JIT) process within a South African company: The case of Sabertek. *Investment Management and Financial Innovations*, 13(3-1).

SSIRC 2023-003**THE IMPACT OF ENTREPRENEURSHIP ON ECONOMIC GROWTH IN SOUTH AFRICA****S. Govuzela**

Vaal University of Technology, South Africa

ABSTRACT

In recent times, entrepreneurship has been the focus of interest in policy, academic and research circles globally. Without entrepreneurship, there can hardly be any job creation, economic growth, and development in a society. Against a background of rising unemployment in South Africa and many other countries, there has been a considerable focus on promoting entrepreneurship. Entrepreneurs who successfully start their own businesses are vital to the economic well-being of South Africa. Whether is for technological progress or economic growth, entrepreneurship is at the root of that development. The importance of entrepreneurship is continuously reinforced. Economists are talking about the significant impact of entrepreneurship on job creation and economic growth. South Africa is in dire need of entrepreneurship because this is the major source of job creation and the key to sustainability in the country's economy. Qualitative research was used in this study. An extensive literature review regarding the importance of entrepreneurship in the South African economy was explored. This study aimed to investigate the impact of entrepreneurship on economic growth in South Africa. This aim was achieved by an extensive literature review, which revealed that entrepreneurship has a positive impact on economic growth in South Africa. The study concludes that entrepreneurship has a positive impact on economic growth in South Africa. Entrepreneurship is vital to the economic growth of any country. The successful establishment of entrepreneurial ventures leads to employment opportunities and growth in all economies. In view of the study results, it is thus recommended that the government of South Africa should establish a new support agency for entrepreneurs. The South African government should improve the public's view of entrepreneurship. It is further recommended that the South African education system should reform to provide entrepreneurial ventures with the skills they need to thrive.

KEYWORDS: entrepreneur, entrepreneurship, an entrepreneurial venture, economic growth, employment opportunities

1. INTRODUCTION

In recent times, entrepreneurship has been the focus of interest in policy, academic and research circles globally. Without entrepreneurship, there can hardly be any job creation, economic growth, and development in a society. Against a background of rising unemployment in South Africa and many other countries, there has been a considerable focus on promoting entrepreneurship. Entrepreneurs who successfully start their own businesses are vital to the economic well-being of South Africa. Whether is for technological progress or economic growth, entrepreneurship is at the root of that development. The importance of entrepreneurship is continuously reinforced.

Economists are talking about the significant impact of entrepreneurship on job creation and economic growth. South Africa is in dire need of entrepreneurship because this is the major source of job creation and the key to sustainability in the country's economy.

Entrepreneurial activity has a crucial influence on the national economy, it is a stimulant and a source of innovation. In fact, economic development can be directly attributed to levels of entrepreneurial activity in a national economy. There is a direct correlation between job creation and the level of entrepreneurial activity in a country and a statistically significant association between national economic growth and entrepreneurship. Entrepreneurial businesses ensure economic growth by means of innovation which creates wealth for the entrepreneur and adds value to society. Entrepreneurs can produce new solutions to old problems, and they always challenge the status quo. Entrepreneurs are risk-takers, who pursue opportunities that others may fail to recognise or may even view as problems or threats. Entrepreneurs are closely associated with change, creativity, knowledge, innovation, and flexibility, which are the factors that are increasingly important sources of competitiveness in an increasingly globalised world economy. Therefore, fostering entrepreneurship means promoting the competitiveness of businesses.

2. LITERATURE REVIEW

2.1 Concept of Entrepreneurship

Entrepreneurship is a broad term that encompasses a lot of definitions. The definition given by Howard Stevenson of Harvard Business School defines entrepreneurship as the “pursuit of opportunity beyond resources controlled”, which implies some creativity in the approach to generating innovations. Traditional arguments hold that entrepreneurship allows new innovations to occur, ensuring that resources are efficiently used within the market (Seth, 2021). Entrepreneurship is the process of creating something new by committing resources and enduring risks to achieve rewards (Van Aardt & Bezuidenhout, 2020).

Botha (2018) states that entrepreneurship is the process of establishing a business, from the identification of a business opportunity and innovation to planning, start-up, managing and growing the business. According to Longenecker, Petty, Palich, Hoy, Radipere and Phillips (2017), entrepreneurship is a necessity in our society. It is a philosophy based on individual initiative and on the insight that entrepreneurship is more than just getting a job. Entrepreneurship achieves self-fulfilment, gains respect, and enables real innovation by looking at the next necessary steps toward a better world.

2.2 Entrepreneurship and Innovation

Entrepreneurship and innovation are often used as synonyms, which is not accurate. Even though there is a vast difference between these two concepts, it is very important to note that entrepreneurship and innovation cannot be separated from each other. Entrepreneurship cannot exist without innovation, or innovation without entrepreneurship (Van Aardt & Bezuidenhout, 2020). Innovation is a specific tool of entrepreneurship by which entrepreneurs exploit change as an opportunity for a different business or service. In essence, innovation must address market needs and requires entrepreneurship if it is to achieve commercial success. Entrepreneurship and innovation are complementary because innovation is the source of entrepreneurship and

entrepreneurship allows innovation to flourish and helps to realise its economic value. A combination of the two is vital to organisational success and sustainability in today's dynamic and changing environment (Van Aardt & Bezuidenhout, 2020).

According to Rajendran (2017), innovation is a facilitator of entrepreneurship and a way of empowering people to take charge of their lives and economic prosperity. At the same time, entrepreneurship is the answer to innovation at the individual business level. It also stimulates the general business sector growth of a nation. Flourish in entrepreneurship entails a focus on ingenuity, amalgamating innovation, and strategic business practices. Merchant (2018) states that innovation and entrepreneurship are intertwined and go hand in hand. In fact, Peter Drucker in his book "Management – Task, Responsibilities and Practices" written way back in 1973 points out the two as the main function of every business. Entrepreneurs innovate. They exploit change as an opportunity for a different business or a different service by innovation. StartupIstanbul (2015) indicates that innovation is important in entrepreneurship. In the highly competitive world that we live in, innovative ideas are what will separate you from the rest. Your goal is not to build just an average start-up, right? To create an outstanding product and strong brand and to build your customer network, you need to innovate. Innovation does not always mean creating something new: innovators often take something that already exists, improve it, change it, make it better and make it the best for their customers. Innovative ideas are what will make a start-up competition.

2.3 Entrepreneurship and Economic Growth

Entrepreneurs could identify and seize an opportunity and create and develop a business by adding value to the business. They do this by applying resources that include finance, time, effort, people, and skills. They are willing to take risks and through their businesses, they organise, manage, and achieve results (Botha, 2018). Entrepreneurs are among the most important contributors to economic development in a country. They are unique individuals who identify creative business opportunities, take the risk of establishing a business and have the talent and skills to manage and grow a business – in the process, creating wealth and employment. Entrepreneurs directly influence the level of economic growth in a country. Job creation is highly correlated with the level of business start-up activity and there is a positive, statistically significant association between national economic growth and entrepreneurship (Strydom, 2018).

Entrepreneurs often create new technologies, develop new products, or process innovations and open new markets. There are many examples of radical innovations introduced by entrepreneurs such as Pierre Omidyar (eBay), Larry Page and Sergey Brin (Google), Larry Ellison (Oracle), Dietmar Hopp and Hasso Plattner (SAP), Bill Gates (Microsoft), Steve Jobs (Apple) and Stelios Haji-Ioannou (easyJet), to name just a few. Radical innovations often lead to economic growth. Entrepreneurs who bring innovations to the market offer a key value-generating contribution to economic progress (Kritikos, 2014). Entrepreneurial businesses create or innovate by doing something new or different to create wealth for the entrepreneur. High-potential entrepreneurs are those that intend to grow their businesses. They are responsible for the growth and job creation in the economy and can be found in their own enterprises as part of a team owning an enterprise, or corporate entrepreneurs that are entrepreneurs who are employed and create new businesses within an existing business and operate in larger companies and in the public sector (Strydom, 2018).

Savrul (2017) highlights the role of the entrepreneur as the major element of economic development. Innovation efforts of an entrepreneur force the firms to introduce new inventions which result in the current products and technologies to be obsolete. Entrepreneurship is the instrument that converts knowledge into economic growth. The need for developing new products to gain competitive advantage force enterprises to employ researchers and the research and development efforts of these researchers convert knowledge into economic growth. According to Savrul (2017), the generated knowledge cannot be commercialised by the researchers but by the entrepreneurs who discover potential opportunities and start new firms to exploit knowledge. These historical aspects of entrepreneurship that connect entrepreneurship and economic growth later emerged in many fields of study such as management and economics. In the current view, the literature proposes that economic performance is contributed by entrepreneurial activities such as the introduction of innovations, creation of change, creation of competition and enhancement of rivalry (Savrul (2017).

Entrepreneurship may affect economic growth in many distinct ways such as the introduction of essential innovations which result in production processes or new products. The crucial roles played by the entrepreneurs such as Sam Walton, Ray Kroc, Bill Gates, Michael Dell, Henry Ford, Andrew Carnegie, and Thomas Edison led to a transformation in many initial industries. Another way the entrepreneurs boost productivity is through competition building. They can improve our knowledge of what is technically applicable by offering alternatives to the existing products and services in the market, what consumers prefer (Savrul, 2017). The ways in which entrepreneurship can be effective in economic growth can be extended further. To stay within the scope of the subject, we may summarise these effects in three essential ways as follows:

The first is the creation of knowledge spillovers. As established in the literature, knowledge spillovers are a significant mechanism underlying endogenous growth. The second is a generation of economic growth by entrepreneurship capital through boosting the number of enterprises and raising competition. It is discussed in the literature that competition is more helpful to knowledge externalities than local monopoly. The third is the generation of economic output by entrepreneurship capital by presenting diversity among enterprises. Entrepreneurship capital increases the variety of enterprises in a certain location besides generating a greater number of enterprises. In making a country-level consideration, the variables such as the level of corruption, regulatory framework, the extent of educational capital and availability of financial capital directed towards entrepreneurship influence entrepreneurial effort considerably (Savrul, 2017).

In today's business environment, how entrepreneurial action can affect economic growth can be seen in Figure 1

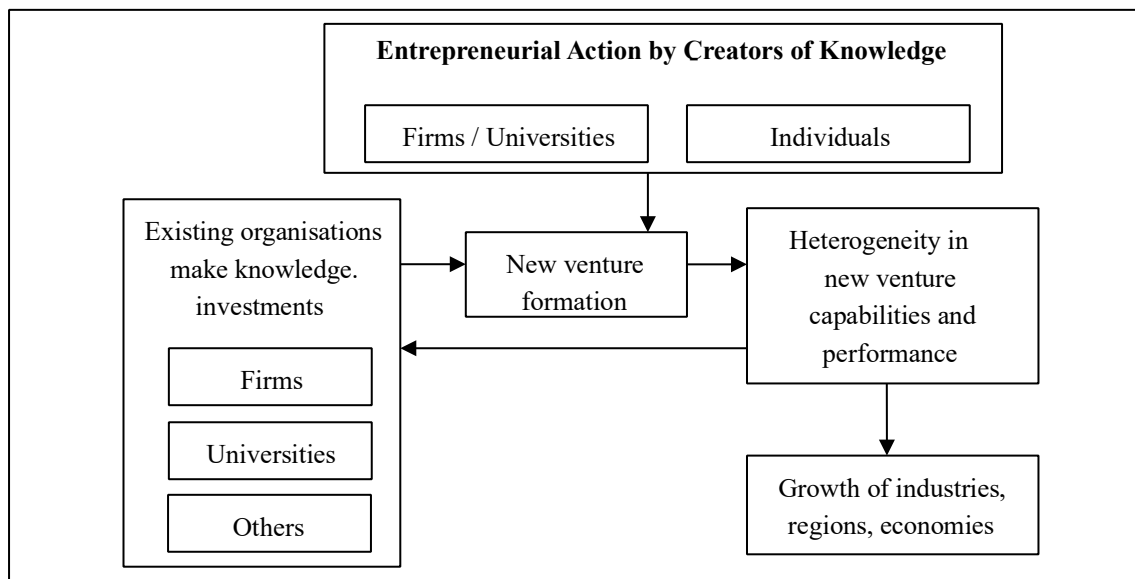


Figure 1. Strategic Entrepreneurship

Source: Savrul (2017)

Innovation and entrepreneurship undeniably contribute to economic growth, and they are a particular area of concern for policymakers. However, scholars say that the economic growth offered by entrepreneurship can be exaggerated. Growth from the entrepreneurial activity does not occur evenly across sectors of the economy. Studies of economic growth have pointed towards an apparent paradox where productivity growth has been “at best modest in recent years”, despite the pervasiveness of innovation, entrepreneurship, and innovation ideology. According to research from the National Bureau of Economic Research, this is because innovation affects industries very differently, meaning that it has a large impact on the growth of some sectors of the economy but not across all sectors (Seth, 2021).

2.4 Importance of Entrepreneurship

Entrepreneurship presents an important aspect of the current economic model, especially in post-industrial economies like the US where the ‘knowledge economy’ and platform-driven companies, often relying on specific inventions or ‘disruptions’, have captured large shares of the market. The relationship between entrepreneurship and economic development is important to understand for policymakers and business owners. Understanding the benefits and drawbacks of entrepreneurship allows a balanced approach to nurturing entrepreneurship to be taken, which can, if handled correctly, result in a positive economic and societal impact. (Seth, 2021). Established firms are important for employment creation and sustainability, but small, micro & medium enterprises (SMMEs) form the most important growth sector in the world’s leading economies, such as the US, Japan, and the UK. While many businesses and start-ups fail, entrepreneurship is still regarded as the best business opportunity that exists (Strydom, 2018).

Botha (2018) indicates that the vital importance and positive contribution of entrepreneurs, entrepreneurial businesses, and entrepreneurial culture in the economic and social development of countries cannot be overstated. Entrepreneurs create and bring to life new technologies, products,

and services. Entrepreneurs create new markets and provide more jobs. Entrepreneurs take calculated risks; they are innovative and creative and put these qualities into feasible and viable businesses. South Africa, like any emerging economy that aims to move forward, needs successful entrepreneurs to play an even bigger strategic role in contributing to economic growth. Botha (2018) further states that the transformation of ideas into economic opportunities is the crux of entrepreneurship. History shows that pragmatic people who are entrepreneurial, creative, and innovative, able to exploit opportunities and willing to take risks, have significantly advanced economic progress. For example, the USA gets more than half of its economic growth from industries that barely existed a decade ago. This is directly attributable to innovative entrepreneurs and their start-up businesses.

According to Erasmus, Strydom and Rudansky-Kloppers (2013), entrepreneurial activity is the essential source of economic growth and social development and the key role played by this factor of production was underestimated for many decades. Entrepreneurship is the spark that brings the other factors of production into motion. Erasmus, Strydom and Rudansky-Kloppers (2013) further state that in developed economies, the entrepreneur is recognised as a key factor in the process of economic development. Entrepreneurs innovate, take risks, and employ people. They create markets and serve consumers by combining materials, processes, and products in new ways. They initiate change, create wealth, and develop new enterprises. More specifically, the strategic role of small businesses in any economy revolves around the production of products and services, innovation, the aiding of big business and job creation.

Van Aardt & Bezuidenhout (2020) indicate that economic development can be directly attributed to the level of entrepreneurial activity in a country. Entrepreneurship ensures growth in the economy as entrepreneurs intend to grow their businesses and are responsible for job creation in the economy. Van Aardt & Bezuidenhout (2020) further argue that SMMEs play a critical role in South Africa's entrepreneurial activities because they:

- Account for 97.5 percent of all businesses
- Generate 35 percent of the gross domestic product (GDP)
- Contribute 43 percent of the total salaries and wages paid.
- Employ 55 percent of all formal, private sector employees in South Africa

2.5 ENTREPRENEURSHIP CONDITIONS

Entrepreneurship conditions determine the conditions of a country's ecosystem, which enhance or hinder the creation of new businesses and therewith influence the economic growth of a nation. While being affected by the social, cultural, and political context of a certain country, entrepreneurship conditions have a direct impact on entrepreneurial activities and entrepreneurial capacity. Therefore, these conditions are important factors to assess the business dynamics and the environment for new business creation (UTwente, 2016).

2.5.1. Cultural and Social Norms

Cultural and social norms positively impact the GDP per capita and economic growth of countries in innovation-driven and transition-driven economies (Gomes, Ferreira, Lopez & Farinha, 2022). Cultural and social norms are relevant for entrepreneurship levels and, consequently, for economic

growth. Cultural and social norms can be defined as the extent to which they encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income (Global Entrepreneurship Monitor, 2023).

2.5.2. Internal Market Dynamics

It is in less developed or less competitive countries that government policies and internal market dynamics are more impactful. As the market is more dynamic, there is a greater probability of new businesses emerging. By stimulating entrepreneurship, it is possible to increase economic growth. Internal market dynamics are more relevant in less competitive countries (Martinez-Fierro, Biedma-Ferrer & Ruiz-Navarro, 2015). Internal market dynamics are usually facilitators of entrepreneurship in innovation-oriented countries (Farinha, Lopes, Bagchi-Sen, Sebastião & Oliveira, 2020). Internal market dynamics refer to the level of change in markets from year to year (Global Entrepreneurship Monitor, 2023).

2.5.3. Physical and Services Infrastructure and Research and Development (R&D) Transfer

Physical and services infrastructure has a positive impact on economic growth in innovation-driven countries (Gomes, Ferreira, Lopez & Farinha, 2022). Entrepreneurship training and education positively affect the relationship between government programme and R&D transfer to growing and new firms (Sa & Pinho, 2019). Physical and services infrastructure refers to the ease of access to physical resources, communication, utilities, transportation, land, or space, at a price that does not discriminate against SMEs. R&D transfer is the extent to which national research and development will lead to new commercial opportunities and is available to SMEs (Global Entrepreneurship Monitor, 2023).

2.5.4. Basic School and Post-School Entrepreneurial Education and Training, Government Programmes and Commercial and Professional Infrastructure

According to Marques, Ferreira, Rodrigues, and Ferreira (2011) and Sommarström, Oikkonen and Pihkala (2020), school-business cooperation allows for achieving more ambitious goals of entrepreneurial learning, having positive effects on the level of economic development of the economy. Government programmes aim to foster an innovative spirit, promote entrepreneurship, and give rise to new companies and new business models with added value in the market (Martinez-Fierro *et al.*, 2015; Medrano, Cornejo-Cañamares & Olarte-Pascual, 2020). Various studies on entrepreneurship have pointed out that commercial and professional infrastructures are crucial for the success of entrepreneurial activity and hence, for countries' economic growth (Peris-Ortiz, Ferreira & Fernandes, 2018; Li, Ahmed, Qalati, Khan, & Naz, 2020). According to Sun, Pofoura, Mensah, Li and Mohsin (2020) and Bertoni and Tykvová (2015), government funding and support for entrepreneurial activity stimulate the development of entrepreneurial activity and the growth of an economy. Government programmes refer to the presence and quality of programmes directly assisting SMEs at all levels of government. Commercial and professional infrastructure is the presence of property rights, commercial, accounting, and other legal and assessment services and institutions that support or promote SMEs (Global Entrepreneurship Monitor, 2023).

3. CONCEPTUAL FRAMEWORK AND SUMMARY OF PREMISES

The study tested the conceptual framework illustrated in Figure 2, which shows that entrepreneurship has a positive impact on economic growth.

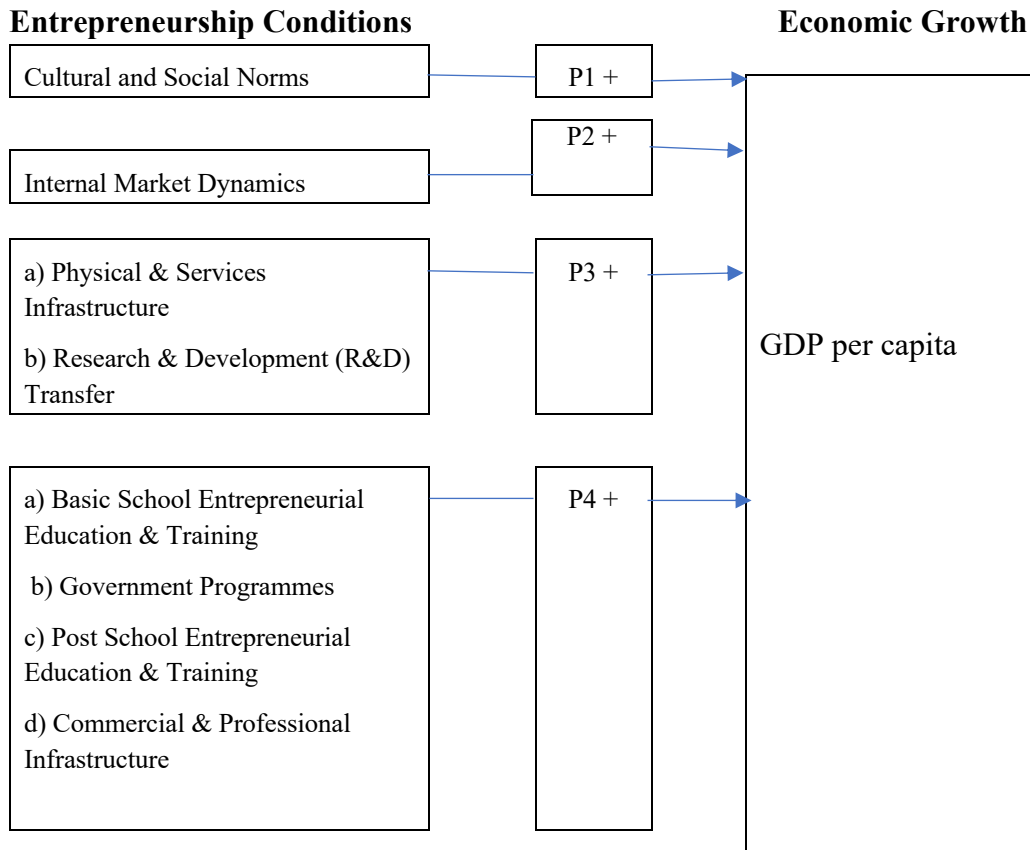


Figure 2. Conceptual Framework for Entrepreneurship Conditions and Economic Growth

Source: Gomes, Ferreira, Lopez and Farinha (2022)

P1: Cultural and social norms have positive impacts on the economic growth.

P2: Internal market dynamics have positive impacts on the economic growth.

P3: Physical and services infrastructure and R&D transfer have positive impacts on the economic growth.

P4: Basic school entrepreneurial education and training, government programmes, post-school entrepreneurial education and training and commercial and professional infrastructure have positive impacts on the economic growth.

The purpose of the study was to explore the extent to which entrepreneurship has an impact on economic growth in South Africa.

4. PROBLEM INVESTIGATED

The impact of entrepreneurship on economic growth in South Africa was investigated.

5. RESEARCH OBJECTIVES

5.1 To use qualitative research in investigating the relationship between strategic agility and business performance.

5.2 To use four premises to achieve the aim of the study.

6. METHODOLOGY

A qualitative research method was used in this study. Busetto, Wick and Gumbinger (2020) define qualitative research as the study of the nature of phenomena, including their quality, different manifestations, the context in which they appear or the perspective from which they can be perceived, but excluding their range, frequency, and place in an objectively determined chain of cause and effect. Qualitative research generally includes data in the form of words rather than numbers.

This investigation used a document study to collect data on entrepreneurship and economic growth. Data were collected from articles, dissertations, the internet, theses, and textbooks. Electronic databases such as Emerald, Science Direct, EBSCO-Host, Nexus, Sabinet, and Sage were used as sources of data. Keywords (entrepreneur, entrepreneurship, an entrepreneurial venture, economic growth, employment opportunities) were used to search for the relevant data in this document study. Interviews were also administered to collect data for this study. The research participants for this qualitative study were 500 entrepreneurs. The saturation was attained after 380 participants were interviewed. At this stage, most of their responses to the interview questions were the same. The 500 interviewees aged between 36 and 55 years from all nine provinces in South Africa were chosen using a simple random sampling method. Via open-ended interview questions, participants were given the opportunity to share their thoughts on the impact of entrepreneurship on South Africa's economic growth. Narrative analysis was used to analyse the interviews.

Johnson and Christensen (2008) contend that qualitative data comprises responses from open-ended questions by interviewing participants, which permits them to answer in their own words and express their opinions about an intricate situation. The most important advantage of this technique is that it gives the researcher the opportunity to interact directly on a one-on-one basis with the research participants. This also gives an opportunity for the researcher to ask more in-depth and detailed questions to get every bit of information needed for the study. The opportunity to interact on a one-on-one basis with the research participants in this qualitative study gave leeway for the researcher to determine the impact of entrepreneurship on South Africa's economic growth. The interview questions were formulated to capture the impact of entrepreneurship on South Africa's economic growth.

7. FINDINGS

This qualitative study examined the relationship between entrepreneurship and economic growth. This aim was achieved by employing qualitative research and developing four premises. This section discusses the results of each of these premises.

7.1. Cultural and Social Norms

The first premise (P1) suggests a significant positive relationship between cultural and social norms (which are entrepreneurial conditions) and economic growth. The results of the qualitative study show that cultural and social norms have a positive impact on economic growth. Thus, cultural, and social norms positively impact the economic growth of countries in innovation-driven and transition-driven economies. According to several studies, cultural and social norms are relevant for entrepreneurship levels and consequently for economic growth (Gomes, Ferreira, Lopez and Farinha, 2022). Cultural and social norms positively impact the GDP per capita and economic growth of countries in innovation-driven and transition-driven economies (Gomes, Ferreira, Lopez & Farinha, 2022).

7.2. Internal Market Dynamics

The second premise (P2) suggests a significant positive relationship between internal market dynamics (which are entrepreneurial conditions) and economic growth. The results of the qualitative study indicate that internal market dynamics positively impact economic growth. As the market is more dynamic, there is a greater probability of new businesses emerging. By stimulating entrepreneurship, it is possible to increase economic growth. Internal market dynamics are usually facilitators of entrepreneurship in innovation-oriented countries. Internal market dynamics have a greater impact on the early stages of entrepreneurship (Gomes, Ferreira, Lopez and Farinha, 2022). It is in less developed or less competitive countries that Government Policies and Internal Market Dynamics are more impactful. As the market is more dynamic, there is a greater probability of new businesses emerging. By stimulating entrepreneurship, it is possible to increase economic growth. Internal market dynamics are more relevant in less competitive countries (Martinez-Fierro, Biedma-Ferrer & Ruiz-Navarro, 2015).

7.3. Physical and Services Infrastructure, R&D Transfer

The third premise (P3) suggests a significant positive relationship between physical and services infrastructure, R&D transfer (which are entrepreneurial conditions) and economic growth. The qualitative study results indicate that physical and services infrastructure has a positive impact on economic growth. The results show that the higher the degree of development of a country, the greater the impact of physical and services infrastructure on economic growth. R&D transfer has a positive impact on the economic growth in a country. In innovation-driven economies, entrepreneurship education and training are relevant in the context of government programmes for the effectiveness of R&D transfer. Thus, entrepreneurship training and education positively affect the relationship between government programmes and R&D transfer to growing and new firms (Gomes, Ferreira, Lopez and Farinha, 2022). Physical and services infrastructure has a positive impact on economic growth in innovation-driven countries (Gomes, Ferreira, Lopez & Farinha, 2022).

7.4. Basic School & Post-School Entrepreneurial Education and Training, Government Programmes and Commercial and Professional Infrastructure

The fourth premise (P4) suggests a significant positive relationship between basic school entrepreneurial education and training, government programmes, post-school entrepreneurial

education and training, commercial and professional infrastructure (which are entrepreneurial conditions) and economic growth (Gomes, Ferreira, Lopez and Farinha, 2022).

The results reveal that basic school entrepreneurial education and training have a positive impact on economic growth. Whenever basic school entrepreneurial education and training present weaknesses in an economy, the labour market is impacted. This impact is unfavourable for entrepreneurial activities. On the other hand, entrepreneurial activities correlate strongly with the number of job vacancies available. In other words, the more job vacancies there are, the less entrepreneurial activity there will be. As a rule, there will be less economic growth if there is less entrepreneurial activity. For economic growth to occur, policymakers must prioritise entrepreneurship. According to Marques, Ferreira, Rodrigues, and Ferreira (2011) and Sommarström, Oikkonen and Pihkala (2020), school-business cooperation allows for achieving more ambitious goals of entrepreneurial learning, having positive effects on the level of economic development of the economy.

Government programmes also assist in the industry's transformation to meet sustainability goals, which in turn impact economic growth positively. Government programmes aim to foster an innovative spirit, promote entrepreneurship, and give rise to new companies and new business models with added value in the market (Martinez-Fierro *et al.*, 2015; Medrano, Cornejo-Cañamares & Olarte-Pascual, 2020). The results show that government programmes positively impact economic growth. Government programmes aim to foster the innovative spirit of entrepreneurs, promoting entrepreneurship to the creation of new companies through new business models emerging in the market. Government programmes facilitate the creation of an industry focused on the current needs of cities, that is, on the creation of increasingly intelligent cities.

The results indicate that post-school entrepreneurial education and training have a positive impact on economic growth. Post-school entrepreneurial education and training mean more qualified human resources with more knowledge. The variable post-school entrepreneurial education and training is relevant in the entrepreneurship and economic development of economies and in the growth and management of firms. Post-school entrepreneurial education and training positively affect the production and development of high-tech products. In turn, these new high-tech products are often the basis for creating new firms, thereby increasing entrepreneurial activity and economic growth (Gomes, Ferreira, Lopez and Farinha, 2022).

The qualitative study results reveal that commercial and professional infrastructure was also found to have a positive impact on economic growth. Commercial infrastructure and professional infrastructure are the drivers of entrepreneurial activity. When commercial and professional infrastructure is well implemented in countries, these countries have, for example, a good network of business incubators and/or technology parks. In this way, it is feasible to promote business networks and increase company turnover in developing countries' economies (Gomes, Ferreira, Lopez and Farinha, 2022). Various studies on entrepreneurship have pointed out that Commercial and Professional Infrastructures are crucial for the success of entrepreneurial activity and hence, for countries' economic growth (Peris-Ortiz, Ferreira & Fernandes, 2018; Li, Ahmed, Qalati, Khan, & Naz, 2020).

This qualitative study aimed to investigate the impact of entrepreneurship on economic growth in South Africa. This aim was achieved by an extensive literature review, which revealed that entrepreneurship has a positive impact on economic growth in South Africa.

8. CONCLUSION

This qualitative study concludes that entrepreneurship has a positive impact on economic growth in South Africa. Entrepreneurship is vital to the economic growth of any country. The successful establishment of entrepreneurial ventures leads to employment opportunities and growth in all economies. South Africa represents both strong opportunities and barriers for local entrepreneurs. It is evident from the EY G20 Entrepreneurship Barometer report that South Africans embrace the culture of entrepreneurship, a very important element needed to propel it to success. However, there are other equally important elements such as access to funding, support and education and training that need strengthening to truly build a thriving entrepreneurial society.

The importance of entrepreneurial business at all levels is essential to a country's economic development, wealth, and employment creation. Entrepreneurship was identified as a specialised discipline that can be taught and learned. Entrepreneurial development is the origin of successful entrepreneurial activity and although some are born entrepreneurs, it is possible to develop individuals to become entrepreneurs. This is where entrepreneurial education and training play an important role.

9. RECOMMENDATION

Entrepreneurship is important in terms of job creation, GDP contribution and poverty alleviation. The government, through its various departments and agencies, should work to support and encourage its development. The government should extend reforms to entrepreneurship, especially regarding policy formulation and implementation that can encourage the sector to grow. Understanding the factors that are preventing entrepreneurship in South Africa from growing and surviving will assist policymakers and other stakeholders in designing policies that will stimulate innovation, as well as assisting policymakers in supporting, encouraging, and promoting entrepreneurship development in the region. The government should ensure that suitable infrastructural facilities such as adequate electricity and efficient transport systems are in place for the proper operations of SMEs. This will lead to the growth and economic development of South Africa. Entrepreneurs must address the overwhelming challenges faced by small businesses in South Africa for the sector to be significant and sustainable and play the critical role it is supposed to play in terms of job growth, GDP contribution and poverty alleviation. This means that entrepreneurs must strive to be creative, ensure successful management of their companies, develop strategic business strategies, perform ongoing market research, and seek out business training to improve their level of business acumen. This will enable them to gather knowledge that will enable them to implement and integrate the factors that contribute to small businesses' long-term viability. For the SME sector to have a long-term impact on South Africa's economic growth, it must expand and be sustainable.

In view of this qualitative study results, it is thus recommended that the government of South Africa should establish a new support agency for SMEs. The South African government should improve

the public's view of SMEs. It is further recommended that the South African education system should reform to provide entrepreneurs with the skills they need to thrive. Teaching entrepreneurship at the level of basic school and higher education also contributes to stimulating a more active and consistent entrepreneurial culture. For this reason, it is thus recommended that the South African education system should do better to promote and support entrepreneurial education and training.

REFERENCES

- Botha, T. (2018). *Entrepreneurship and how to establish your own business*. Sixth Edition. Juta and Company (Pty) Ltd.
- Bertoni, F. & Tykvová, T. (2015). Does governmental venture capital spur invention and innovation? Evidence from young European biotech companies. *Research Policy*, 44(925–35).
- Busetto, L., Wick, W. and Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*, 2(14).
- Erasmus, B.J., Strydom, J.W. and Rudansky-Kloppers, S. (2013). *Introduction to business management*. Ninth Edition. Oxford University Press, South Africa.
- Farinha, L., Lopes, J., Bagchi-Sen, S., Sebastião, J.R. & Oliveira, J. (2020). Entrepreneurial dynamics and government policies to boost entrepreneurship performance. *Socio-Economic Planning Sciences*, 72(1).
- Global Entrepreneurship Monitor. (2023). *Definitions*. Retrieved February 08, 2023, from <https://www.gemconsortium.org/wiki/1154>
- Gomes, S., Ferreira, J., Lopez, J.M. and Farinha, L. (2022). The Impacts of the Entrepreneurial Conditions on Economic Growth: Evidence from OECD Countries. *Economies*, 10(163)
- Johnson, B. & Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches*, Thousand Oaks: Sage Publications.
- Kritikos, A.S. (2014). Entrepreneurs and their impact on jobs and economic growth. Retrieved from <https://www.https://wol.iza.org/articles/entrepreneurs-and-their-impact-on-jobs-and-economic-growth/long>.
- Li, C., Ahmed, N., Qalati, S.A., Khan, A. & Naz, S. (2020). Role of Business Incubators as a Tool for Entrepreneurship Development: The Mediating and Moderating Role of Business Start-Up and Government Regulations. *Sustainability*, 12(1822).
- Longenecker, J.G., Petty, J.W., Palich, L.E., Hoy, F., Radipere, S. and Phillips, M. (2017). *Small business management – Launching and growing entrepreneurial ventures*. SA Edition. Cengage Learning EMEA.
- Martinez-Fierro, S., Biedma-Ferrer, J.M. & Ruiz-Navarro, J. (2015). Entrepreneurial Framework Conditions and Economic Development: An Analysis of Gem Countries. *Revista de Economía Mundial*, 1(181–212).

-
- Marques, C.S., Ferreira, J., Rodrigues, R.G. & Ferreira, M. (2011). The contribution of yoga to the entrepreneurial potential of university students: A SEM approach. *International Entrepreneurship and Management Journal*, 7(255–78).
- Medrano, N., Cornejo-Cañamares, M. & Olarte-Pascual, C. (2020). The impact of marketing innovation on companies' environmental orientation. *Journal of Business & Industrial Marketing*, 35(1–12).
- Merchant P. (2018). *Why innovation and entrepreneurship go hand in hand*. Retrieved from <https://www.entrepreneur.com/article/313753>
- Peris-Ortiz, M., Ferreira, J. & Fernandes, C. (2018). Do Total Early-Stage Entrepreneurial Activities (TEAs) foster innovative practices in OECD countries? *Technological Forecasting and Social Change*, 129(176–84).
- Rajendran A. (2017). *Why innovation is increasingly becoming critical to entrepreneurship*. Retrieved from <https://www.entrepreneur.com/article/296912>.
- Sa, E. & Pinho, J.C. (2019). Effect of entrepreneurial framework conditions on R&D transfer to new and growing firms: The case of European Union innovation-driven countries. *Technological Forecasting and Social Change*, 141(47–58).
- Savrul, M. (2017). The impact of entrepreneurship on economic growth: GEM data analysis. *Journal of Management, Marketing, and Logistics*, 4(3).
- Seth, S. (2021). *How entrepreneurship affects the economy*. Retrieved from <https://www.https://www.investopedia.com/articles/personal-finance/101414/why-entrepreneurs-are-important-economy.asp>
- Sommarström, K., Oikkonen, E. & Pihkala, T. (2020). Entrepreneurship Education with Companies: Teachers Organizing School-Company Interaction. *Education Sciences*, 10(268).
- StartupIstanbul. (2015). *The importance of innovation in entrepreneurship*. Retrieved from <https://www.https://startupistanbul.com/blog/2015/03/the-importance-of-innovation-in-entrepreneurship/#>
- Strydom, J. (2018). *Principles of business management*. Fourth Edition. Oxford University Press, South Africa.
- Sun, H., Pofoura, A.K., Mensah, I.A., Li, L. & Mohsin, M. (2020). The role of environmental entrepreneurship for sustainable development: Evidence from 35 countries in Sub-Saharan Africa. *Science of The Total Environment*, 741(1).
- UTwente, M.K. (2016) *Entrepreneurial Framework Conditions*. Retrieved from <https://startify7.eu/wiki/entrepreneurial-framework-conditions.html>.
- Van Aardt, I. and Bezuidenhout, S. (2020). *Entrepreneurship & new venture management*. Sixth Edition. Oxford University Press, South Africa.
-

SSIRC 2023-009

RISK MANAGEMENT AND FINANCIAL PERFORMANCE OF LISTED COMMERCIAL BANKS IN MALAWI

P. Chipeta

Malawi University of Business & Applied Sciences, Malawi

ABSTRACT

An economy's financial system depends on the banking sector, as banks play a significant role in making finances available to investors and other deficient spending entities. However, banks face several risks that must be managed effectively for sustainability. Since the adoption of Basel standards (Basel II) in Malawi, commercial banks have reported mixed performance. This diverse bank performance motivated this study to assess the effect of risk management on the financial performance of listed commercial banks in Malawi. The specific objectives of this study were to determine the impact of the Capital Adequacy Ratio (CAR), analyse the effect of the Non-Performing Loans Ratio (NPLR) and assess the impact of the adoption of Basel standards (Basel II) on the financial performance of listed commercial banks in Malawi. This study used secondary data collected from financial reports of 4 listed commercial banks in Malawi from 2005 to 2020. Return on Assets (ROA) and Return on Equity (ROE) were the performance measures, and NPLR, CAR and Adoption of Basel standards (Basel II) were the measures of risk management. Descriptive statistics, correlation and panel regression analysis were employed, and diagnostic tests were conducted. Using a paired sample t-test, the study assessed the effect of the adoption of Basel II on the financial performance of the listed commercial banks. This study has found that CAR has a significant positive impact on ROA, NPLR has a significant negative effect on ROE, and the adoption of Basel II has a significant negative impact on the financial performance of listed commercial Banks in Malawi. For banks to remain sustainable, they must minimise NPLR, maintain minimum CAR, and embrace Basel standards. Four (listed only) out of eight commercial banks in Malawi were study subjects; hence, a similar study may be carried out for all the commercial banks.

KEYWORDS: Risk Management, financial performance, listed commercial banks, Malawi, Panel Regression.

1. INTRODUCTION

Banks play a significant role in any financial system as they provide financial resources for investments; hence, the core of any financial industry lies in the banking sector. Banks have been considered to be heavily dependent on the performance of their credit portfolios (Munangi & Sibindi, 2020). This, therefore, implies that any maladministration of the credit portfolio undesirably affects the baseline of a bank and can damage the total bank's capital (Lalon, 2015). Over the years, various lessons from the global financial and economic crises show that there have been negative impacts on banking systems worldwide due to occurrences emanating from neglecting possible risks in the credit market or financial institutions (Luc & Valencia, 2010). Some significant events relating to financial and economic crises were due to the failure of the financial systems. First is the

Latin American debt crisis that erupted in the early years of the 1980's leading to Mexican banks' huge liabilities escalating to almost 230% for a period of 6 years from 1976 to 1982, Argentina's by an awful 550%, Brazil's indebtedness expunged as well to 160%, Venezuela's debts also erupted to 330%, and Chile's also to 850% (Wessel, 1984, as cited in Li & Zou, 2014). Then came the global financial crisis between 2007 and early 2009 that led to global financial desperation. This economic crisis hit almost every sector and industry worldwide. Still, Luc and Valencia (2010) have stressed that the financial services industry was the most affected of all the sectors, especially the banking sector.

Over the years, these failures of the financial systems have drawn the attention of the Basel Committee on Bank Supervision, which started with an accord that regulated credit risk based on the total capital at hand. Ngwa (2016) argues that international standards that have influenced banking policies for several decades have been found lacking and need to be able to deal with some of these most severe systemic global financial crises since the beginning of the 1930s. This has prompted efforts to reform bank regulations to prevent any repetition of economic problems in future. Additionally, the Basel Committee was established in 1974 by the G10 countries to improve the quality of banking supervision worldwide, and its current membership has grown to more than 44 countries. The committee has introduced several banking standards, notably the capital adequacy standards known as Basel I, Basel II, and Basel III (Basel Committee on Banking Supervision, 2010).

1.1. Overview of the banking sector in Malawi

The Malawi banking sector comprises eight banks, five listed on the Malawi Stock Exchange. There have been cases where dominating ones have acquired non-performing banks. There has yet to be any new entrance on the market as of 2020 (Kamphoni, 2020).

Malawi adopted the Basel II standards in January 2014 to bolster the steadiness of the financial service sector (International Monetary Fund, 2015). The Basel II accord requires that banks maintain specific minimum ratios of core capital and total capital, thus 6% and 8%, respectively; arrange for the Internal Capital Adequacy Processes (ICAAPs) yearly; document the same to the central bank; and issue related reports publicly. Banks must also make the monthly Basel II Call Report available and have the most recent risk management systems or standards (IMF, 2015). Considering the economic state of Malawi, the country chose to have higher minimum capital ratios than the minimum provided by Basel II; thus, 10% and 15% Core Capital ratios and total Capital Ratio, respectively. This was done to ensure that expected errors in data used to make such calculations are addressed since the country does not have modern risk management standards and the data are of poor quality (IMF, 2015). Furthermore, in 2014, RBM issued an additional notice about an observational period for Basel III from 2014 to 2021.

Regarding general banking industry performance, as of June 2020, the banking industry has continued to be profitable as the net profit margin, Return on Assets (ROA), and Return on Equity (ROE) averaged 20%, 3.3%, and 36.9%, respectively. This improved from 19%, 2.7%, and 20.5% in 2019. It is necessary to note that Standard Bank reported the highest ROA and ROE with the

highest ROE reported by NBS, who also reported the lowest net profit margin. FCB reported the lowest ROA whilst National Bank reported the lowest ROE as seen from Figure 1.

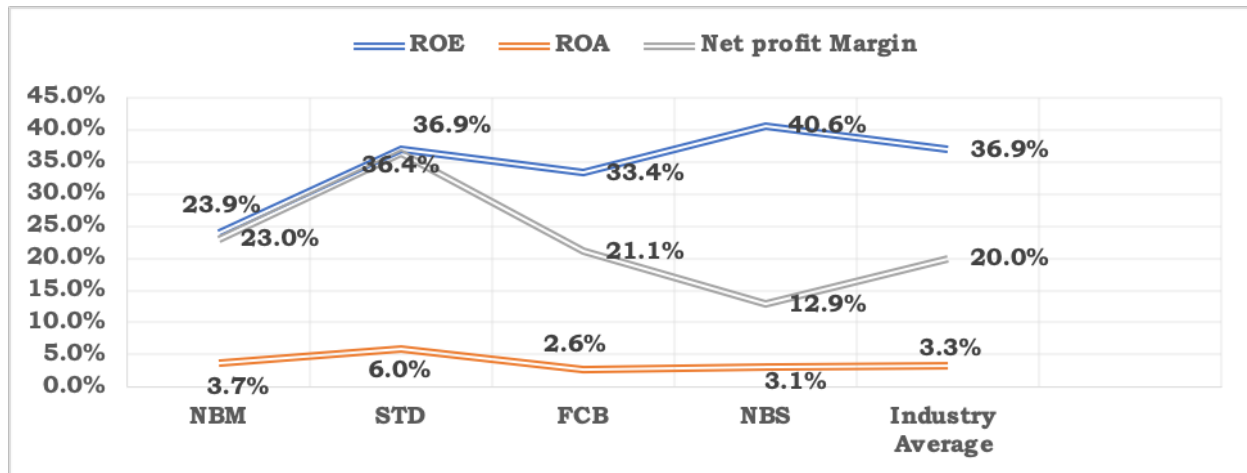


Figure 1: Performance of Listed Commercial Banks in Malawi. Source: RBM (2019)

1.2.Problem statement

Banks have a vital role in any economy as they facilitate financial transactions. They make available financial resources to those who have viable investment ideas. Interest income is the major component of the bank’s revenue, which is very much related to credit risk, creating significant risks (Nyabicha, 2017). Banks are also prone to several other dangers as they go about their business (Greuning & Bratanovic, 2009 as cited in Nyabicha, 2017; Munangi & Sibindi, 2020; Rehman et al., 2019; Wanjohi, 2017).

Since adopting Basel standards in 2014, the performance of Malawi’s banking sector has been mixed, with several banks experiencing losses due to a reduction in interest income. Although the leading players in the banking sector, NBM plc and Std Bank plc, have reported considerable profits in terms of volumes and solid financial positions over the years, relatively more minor banks, such as NBS bank plc, turned around their loss-making role between 2015 to 2017 due to reduced interest income. These banks have continuously reported growth in profitability after that due to increased interest income such that their ROE has been much better than the dominating banks and the industry average, meaning that other banks may have been more effective in managing their risks.

From the preceding, it is evident that some other banks performed poorly due to bad loans that led to considerable reductions in interest income, which would be attributed to poor and ineffective risk management practices in-house, while other banks have performed much better within the same sector and period. The specific strategies or tools regarding risk management practices and the extent to which they are being used by banks in Malawi to maintain the required benchmarks and remain profitable are mainly unexplored. Against this background, this study was motivated to assess the impact of risk management on the financial performance of commercial banks in Malawi.

2. LITERATURE REVIEW

Li and Zou (2014) did a similar study in Europe where ROE and ROA were performance measures while CAR and NPL/TL were risk management measures. They used a panel regression analysis, finding a significant negative relationship between NPL/TL while CAR was not substantial.

Noor and Das (2020) did a study in Bangladesh on the impact of Credit Risk Management on the Financial Performance of Commercial Banks. Panel regression analysis was employed. ROA was used as a performance measure, while NPL, CAR and Advance Deposit Ratio (ADR) were used as credit risk measures. The results of that study showed that both NPL and ADR had a negative and significant impact on ROA, while NPL had a substantial impact on ROA. CAR had a positive effect on ROA. They also noted that non-performing loans for private commercial banks were significantly lower than for those commercial banks that the government owns. The conclusion was that poor credit risk management is a cause for worries due to its impact on financial performance.

Nshala (2017) did a study in Tanzania on the effect of credit risk management on the performance of commercial banks. ROE and ROA represented the performance measures, while NPL ratio, CAR, and TL/TD were risk measures. The results were that the NPL/TL ratio had a significant negative relationship with ROE. LLP/NPL had a meaningful negative relationship with both ROE and ROA. CAR had an insignificant positive effect on ROE and a significant but positive effect on ROA. TL/TD ratio had a negative but insignificant impact on ROE and ROA. Therefore, the increase in NPLs negatively affected performance. Munangi and Sibindi (2020) did a study on the impact of credit risk on the financial performance of banks in the Republic of South Africa (RSA). Panel data techniques were employed for data analysis. ROA and ROE were performance indicators, while NPLs represented risk management indicators. The study findings were that increasing NPLs hurt profitability. The growth rate had a positive impact on financial performance. CAR had a positive impact on profitability. There was no effect between the size of the company and the profitability. Banks' leverage hurt profitability. It was noted that banks needed to employ strict risk management practices to minimise losses from NPLs.

Abedin (2020) did a similar study in Bangladesh on the impact of NPLs on the financial performance of commercial banks. ROA and ROE were employed as performance measures, while NPLs were used as risk management measures. The results showed that NPLs were increasing constantly over the period. They proposed that the central bank should strictly monitor the NPLs of commercial banks.

1.3. Conceptual framework

A pattern forms a conceptual framework based on the theoretical literature and the empirical analysis conducted. For instance, many studies have used ROA and ROE as financial performance measures and non-performing loans to total loan and advance ratio (NPLR), capital adequacy (CA) and non-performing loans to total equity (NPLE) as risk management measures. In this study, financial performance was represented by ROE and ROA.

The study used Capital Adequacy Ratio (CAR), Non-Performing Loans Ratio (NPLR) and other related measures as credit risk management indicators, as shown in Figure 2. As indicated in empirical studies, this relationship is affected by many factors; therefore, this study included size, leverage, and growth as control variables.

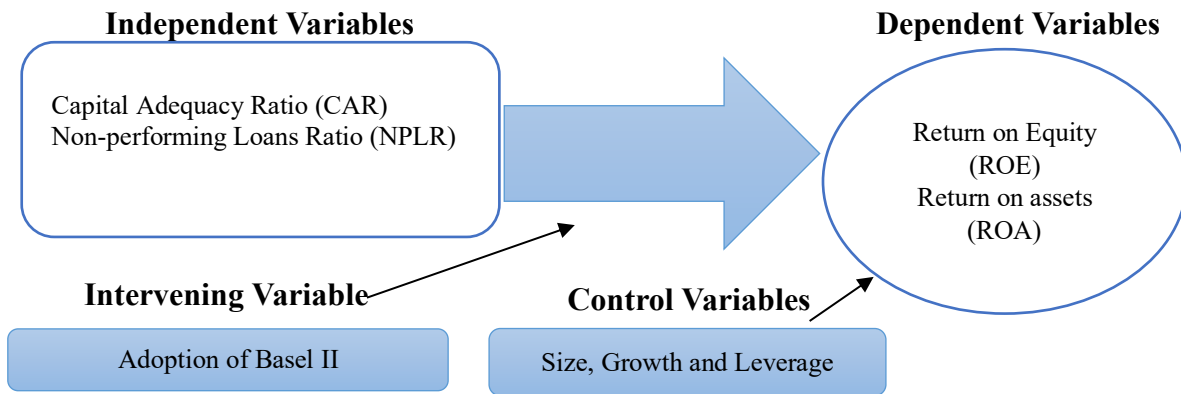


Figure 2: Conceptual model (Source: Author Construct, 2020)

2. STUDY METHODOLOGY

This study employed a quantitative descriptive research design. A descriptive research design is meant to establish the level of connection among the variables. Creswell (2013) defines a descriptive research design as a systematic experimental method such that the scholar is independent of the study subjects and the results. Additionally, to make sure that the standards are maintained in presenting the findings professionally, the design of this study was based on the Research Onion Model as explained by Saunders et al. (2009) in the “Onion” so that the issues about the adopted data collection method are properly presented (refer to Figure 3).

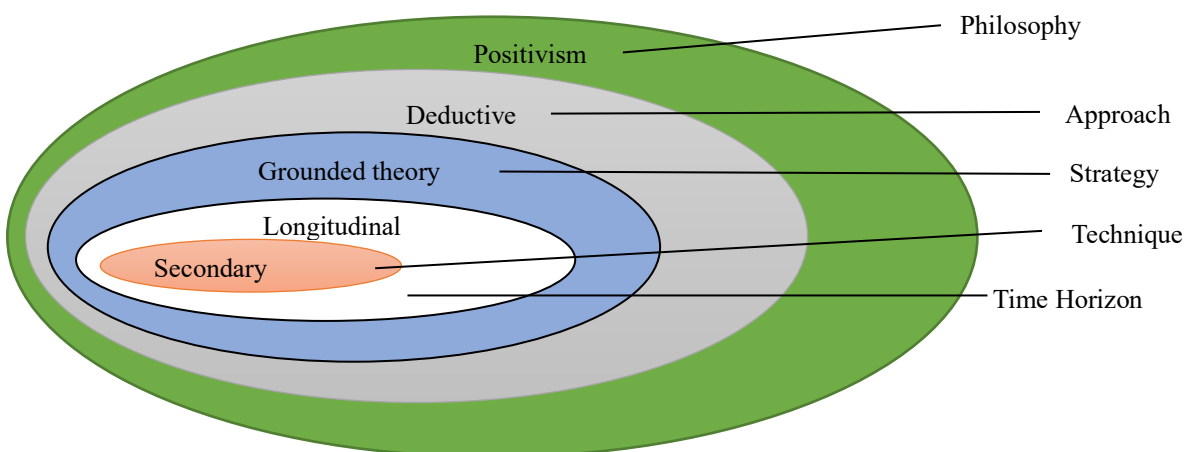


Figure 3: The research “Onion” model. Source: Saunders et al. (2009).

This study assessed the impact of risk management on the financial performance of listed commercial banks in Malawi. The target population for this study comprised all listed commercial banks in Malawi. Hence, the purposive sampling technique was considered appropriate. Five Banks

are listed on the Malawi Stock Market: National Bank of Malawi Plc, Standard Bank Plc, NBS Bank, First Capital Bank Plc (Formerly FMB) and FDH Bank Plc. Four of the five listed commercial banks formed the sampling frame as FDH plc was excluded due to the unavailability of published data. The bank was listed in the year 2020. Secondary data was used in this study and was captured from annual reports and issued financial statements through the Malawi Stock Exchange and the commercial banks' websites. The data collected was a panel, thus both cross-sectional and time series, as it was collected from several individual banks over fifteen years from 2005 to 2020.

Multiple Linear Regression Model was deemed appropriate as there are multiple independent variables. According to the data set, being a composition of both cross-sectional and time series, panel data techniques were used to manage the heterogeneity since the banks have different situations, complexity, and size. A static model was employed to test the relationships.

The standard static model used; $i = 1, \dots, \dots, N, t = 1, \dots, T$ is:

$$y_{it} = \beta_0 + X'_{it}\beta_1 + \epsilon_{it}$$

Fixed Effects and Random Effects models are applicable to study the dynamics of cross-sectional data and control over unobserved time-invariant heterogeneity in cross-sectional models (Arellano & Bonhomme, 2009). This study adopted a static panel data model from Munangi and Sibindi (2020).

Considering the significant unique factors that may affect banks' performance and that the factors vary significantly across the banks, it was deemed appropriate for this study to use the fixed effects model (FEM) to identify the predictors of ROA and ROE. RBM (2019), for instance, reported that of the listed commercial banks in Malawi, NBM plc enjoys a 31% market share, Standard Bank plc 26%, FCB plc 12% and NBS Bank plc 6%. This means that NBM has an advantage over other banks. It is also imperative to note that Hausman Test was not deemed appropriate as this is a statistical test that may not consider other economic factors, such as the current market size of NBM versus other banks that give an urge for NBM (to have a significant better footing) over other banks, hence making FEM appropriate. The FEM considered the least square dummy variable (LSDV), commonly used in FEM models, as the different intercept. Thus, the two-panel FEMs in this study are given as follows:

$$ROA_{i,t} = \beta_1 NPLR_{i,t} + \beta_2 CA_{i,t} + \beta_3 GR_{i,t} + \beta_4 Size_{i,t} + \beta_5 Lev_{i,t} + \alpha_i + \gamma STDB + \rho FCB + \omega NBSB + \epsilon_{i,t} \dots \dots \dots (X)$$

$$ROE_{i,t} = \beta_1 NPLR_{i,t} + \beta_2 CA_{i,t} + \beta_3 GR_{i,t} + \beta_4 Size_{i,t} + \beta_5 Lev_{i,t} + \alpha_i + \gamma STDB + \rho FCB + \omega NBSB + \epsilon_{i,t} \dots \dots \dots (Y)$$

Based on the available data, this study used a balanced short panel data technique for data analysis. As argued by Munangi & Sibindi (2020), equations (X) and (Y) above were estimated using the pooled regression model (Generalized Least Squares-GLS), Fixed Effects Model (FEM). Pre-estimation tests were run to establish that these estimated models are fixed and not mis-specified. Diagnostic tests were conducted to decide on the best estimator to run the model. The rest of the variables are defined in Table 1.

Table 1: Operationalisation of Variables

| Variables | Measurement | Previous studies using similar approach | Apriori expectation |
|--|--|---|---------------------|
| ROE (Performance measure) | $\frac{\text{Net income after Tax}}{\text{Shareholders Equity}}$ | (Munangi & Sibindi, 2020; Ifeacho & Ngalawa, 2014b; Sbârcea, 2017; Nataraja et al., 2018) | |
| ROA (Performance measure) | $\frac{\text{Net Revenues}}{\text{Average Assests}}$ | (Munangi & Sibindi, 2020; Alshatti, 2015a; Saeed & Zahid, 2016; Ongore & Kusa, 2013) | |
| NPLR (Risk management measure) | $\frac{\text{Non – perfoming Loans}}{\text{Total gross loans}}$ | (Munangi & Sibindi, 2020 ; (Abbas, Ahmad, Zaidi, & Ashraf, 2014) ; Nduku, 2013 ; Chimkono et al., 2016 ; Al-shakrchy, 2017) | Negative/positive |
| Fraud Losses (Risk management measure) | <i>Logarithm of total losses due to fraud</i> | (Shah & Khan, 2017) | Negative |
| Capital adequacy (Risk management measure) | $\frac{\text{Core Capital}}{\text{Risk weighted Assets}}$ | (Dreca, 2013; Echekoba, Egbunike, & Kasie, 2014; Aspal & Nazneen, | Positive |
| Size (Risk management measure) | <i>Logarithm of total assets</i> | Boahene, Dasah, & Agyei, 2012; Petria et al., 2015; Shah & Khan, 2017) | Positive |
| Growth (Risk management measure) | Growth rate of total assets/sales | Chipeta, Wolmarans, & Vermaak, 2012) | Positive |
| Leverage (Risk management measure) | Total debt/Total assets | (Munangi & Sibindi, 2020; Jasevičienė, Povilaitis, & Vidzbelytė, 2013; Klepczarek, 2015) | Positive |

Source: Adopted from Munangi and Sibindi (2020).

Diagnostic tests were conducted to ensure that the estimated results were reliable. The estimation of both models involved several diagnostic tests to be implemented to estimate robust models. Tests conducted included tests for Multicollinearity, Normality diagnostics and test for Heteroscedasticity.

4. RESULTS AND DISCUSSION

This study used 64 observations from four listed commercial banks in Malawi (National Bank of Malawi, Standard Bank, First Capital Bank, and New Building Society Bank). The study also involved the following variables: Year, Non-performing Loans Ratio (NPLR), Return on Assets (ROA), Return on Equity (ROE), Capital Adequacy, Asset Size (Mk Mio), Growth, and Leverage. The observations were made during the period from 2005 to 2020. The purpose was to identify

predictors of ROA and ROE amongst these variables. This was investigated in a multiple linear regression model. To build meaningful multiple linear regression models for ROA and ROE, the independence of the predictor variables needed to be checked, that is, to explore whether multicollinearity existed between these variables. A point worth noting is that by overinflating the standard errors, multicollinearity makes some variables statistically insignificant when they should be significant. This implies that without multicollinearity, those variables might be significant. Therefore, multicollinearity was addressed before performing linear regression analysis in this study.

According to the results of the multiple linear regression analysis, NPLR, Capital Adequacy, Size (Mk Bio) and Growth had a significant collective effect on ROA ($F(7, 56) = 9.891, P \text{ value} < 0.001$), with an adjusted R^2 of 47.7%.

$$ROA = 0.009 - 0.078 \times NPLR + 0.256 \times \text{Capital Adequacy} - 0.000000041 \times \text{Size (Mk Bio)} + 0.016 \times \text{Growth}$$

Further analysis indicated that an increase in Capital Adequacy was significantly associated with increased ROA ($t = 3.294, P \text{ value} = 0.002$), and an increase in Asset Size (Mk Mio) significantly decreased ROA ($t = -3.549, P \text{ value} = 0.001$). Table 6 below shows the details. Additionally, when Leverage was included in the model, NPLR, Capital Adequacy, Size (Mk Bio), and Growth had a significant collective effect on ROA ($F(7, 56) = 13.551, P \text{ value} < 0.001$), with an adjusted R^2 of 58.2%. Further analysis indicated that an increase in Leverage was significantly associated with decreased ROA ($t = -4.952, P \text{ value} < 0.001$), and an increase in Asset Size (Mk Mio) significantly decreased ROA ($t = -3.815, P \text{ value} < 0.001$). Table 2 shows the details.

Table 2: Regressors of ROA with Capital Adequacy included but not leverage.

| Covariates | Unstandardized Coefficients | | Standardized Coefficients | t | P value | 95% Confidence Interval for B | |
|------------|-----------------------------|------------|---------------------------|--------|---------|-------------------------------|-------------|
| | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| (Constant) | 0.024 | 0.012 | | 2.024 | 0.048 | <0.001 | 0.047 |
| STDB | 0.005 | 0.006 | 0.094 | 0.837 | 0.406 | -0.007 | 0.016 |
| FCB | -0.006 | 0.006 | -0.121 | -1.069 | 0.290 | -0.017 | 0.005 |
| NBSB | -0.016 | 0.008 | -0.322 | -2.053 | 0.045 | -0.032 | <0.001 |
| NPLR | -0.049 | 0.033 | -0.159 | -1.461 | 0.150 | -0.116 | 0.018 |
| CAR | 0.186 | 0.056 | 0.404 | 3.294 | 0.002 | 0.073 | 0.299 |
| Asset Size | -0.00000005 | <0.001 | -0.346 | -3.549 | 0.001 | <0.001 | <0.001 |
| Growth | 0.017 | 0.011 | 0.154 | 1.613 | 0.112 | -0.004 | 0.038 |

Similarly, multiple linear regression analysis indicated that Leverage, Asset Size (Mk Mio) and Growth had a significant collective effect on ROE ($F(7, 56) = 5.867, P \text{ value} < 0.001$), with an adjusted R^2 of 35.1%.

Table 3: Regressors of ROE with Leverage included but not Capital Adequacy

| Covariates | Unstandardized Coefficients | | Standardized Coefficients | t | P value | 95% Confidence Interval for B | |
|------------|-----------------------------|------------|---------------------------|--------|---------|-------------------------------|-------------|
| | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| (Constant) | 0.268 | 0.043 | | 6.261 | <0.001 | 0.182 | 0.353 |
| STDB | 0.004 | 0.005 | 0.077 | 0.759 | 0.451 | -0.006 | 0.014 |
| FCB | -0.006 | 0.005 | -0.111 | -1.072 | 0.288 | -0.016 | 0.005 |
| NBSB | -0.010 | 0.007 | -0.208 | -1.441 | 0.155 | -0.025 | 0.004 |
| NPLR | -0.047 | 0.030 | -0.154 | -1.550 | 0.127 | -0.108 | 0.014 |
| Leverage | -0.258 | 0.052 | -0.561 | -4.952 | <0.001 | -0.362 | -0.154 |
| Asset Size | -0.000000049 | <0.001 | -0.337 | -3.815 | <0.001 | <0.001 | <0.001 |
| Growth | 0.019 | 0.010 | 0.171 | 1.961 | 0.055 | <0.001 | 0.038 |

Moreover, an increase in NPLR and Asset size (Mk Mio) significantly decreased ROE ($t=-3.140$, P value =0.003; and $t=-2.921$, P value =0.005, respectively). Besides, an increase in Growth was significantly associated with an increase in ROE ($t=2.035$, P value =0.047). Table 16 shows the details. Also, when Leverage was included in the model, NPLR, Capital Adequacy, Asset Size (Mk Bio), and Growth had a significant collective effect on ROA ($F(7, 56) = 5.895$, P value <0.001), with an adjusted R^2 of 35.2%. Further analysis indicated that an increase in NPLR and Asset Size (Mk Mio) significantly decreased ROE ($t=-3.152$, P value =0.003; and $t=-2.933$, P value =0.005, respectively). In addition, an increase in Growth was significantly associated with an increase in ROE ($t=2.008$, P value =0.049). Tables 4 and 5 show the details.

Table 4: Regressors of ROE with Capital Adequacy included but not Leverage.

| Covariates | Unstandardized Coefficients | | Standardized Coefficients | t | P value | 95% Confidence Interval for B | |
|------------|-----------------------------|------------|---------------------------|--------|---------|-------------------------------|-------------|
| | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| (Constant) | 0.330 | 0.066 | | 4.994 | <0.001 | 0.198 | 0.463 |
| STDB | 0.013 | 0.032 | 0.051 | 0.400 | 0.691 | -0.051 | 0.076 |
| FCB | -0.045 | 0.032 | -0.181 | -1.405 | 0.166 | -0.109 | 0.019 |
| NBSB | -0.059 | 0.044 | -0.237 | -1.331 | 0.188 | -0.148 | 0.030 |
| NPLR | -0.594 | 0.189 | -0.388 | -3.140 | 0.003 | -0.973 | -0.215 |
| CAR | -0.057 | 0.319 | -0.025 | -0.180 | 0.858 | -0.695 | 0.581 |
| Asset Size | -0.000000234 | <0.001 | -0.324 | -2.921 | 0.005 | <0.001 | <0.001 |
| Growth | 0.122 | 0.060 | 0.221 | 2.035 | 0.047 | 0.002 | 0.241 |

Table 5: Regressors of ROE with Leverage included but not Capital Adequacy

| Covariates | Unstandardized Coefficients | | Standardized Coefficients | t | P value | 95% Confidence Interval for B | |
|------------|-----------------------------|------------|---------------------------|--------|---------|-------------------------------|-------------|
| | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| (Constant) | 0.219 | 0.265 | | 0.828 | 0.411 | -0.311 | 0.750 |
| STDB | 0.013 | 0.031 | 0.051 | 0.405 | 0.687 | -0.050 | 0.076 |
| FCB | -0.045 | 0.032 | -0.182 | -1.418 | 0.162 | -0.109 | 0.019 |
| NBSB | -0.064 | 0.045 | -0.257 | -1.430 | 0.158 | -0.154 | 0.026 |
| NPLR | -0.595 | 0.189 | -0.389 | -3.152 | 0.003 | -.974 | -0.217 |
| Leverage | 0.123 | 0.323 | 0.054 | 0.383 | 0.703 | -0.523 | 0.770 |
| Asset Size | -0.000000234 | <0.001 | -0.323 | -2.933 | 0.005 | <0.001 | <0.001 |
| Growth | 0.120 | 0.060 | 0.218 | 2.008 | 0.049 | <0.001 | 0.240 |

2.1. Discussion

Commercial banks play an essential role in the development of the economy as well as the overall development of the country. Therefore, they need to perform well to make a significant contribution. Moreover, commercial banks should consider monitoring their situations to make sure that they are safe from bankruptcy or can withstand financial crises. This study, therefore, aimed to assess the impact of risk management on the financial performance of stock market-listed commercial banks in Malawi. Specifically, the effects of the Non-performing Loans Ratio (NPLR), Capital Adequacy Ratio, Asset Size (Mk Mio), Leverage and Growth on Return on Assets (ROA) and Return on Equity (ROE) were examined. The results indicate that an increase in Capital Adequacy Ratio and Growth significantly increased ROA, but an increase in Leverage significantly reduced ROA, an increase in NPLR significantly reduced ROE and an increase in Asset Size (Mk Mio) decreased both ROA and ROE.

2.2. Effect of adopting Basel II on the financial performance of listed commercial banks

The commercial banks in Malawi adopted the Basel II risk management policy in 2014 but their performance in this regard has not been examined. Therefore, the performances of these commercial banks were compared in terms of ROA and ROE between the period before and after the adoption of the Base II risk management policy. This was accomplished using the paired samples t-test. The assumptions for conducting the paired samples t-test were checked as follows. First, the normality of data was assessed using the Shapiro-Wilk test. The results showed that ROE measurements were normally distributed for the period before the adoption of the Basel II risk management policy [$W(28) = 0.959, P = 0.322$] but not normally distributed after the adoption of this policy [$W(28) = 0.908, P = 0.018$]. Therefore, the Wilcoxon Signed Ranks test was used to conduct paired comparisons for ROE for data measured before and after the adoption of the Basel II risk management policy. Further, the results showed that ROA measurements were normally distributed for the period before the adoption of the Basel II risk management policy [$W(28) = 0.951, P = 0.206$] and after the adoption of this policy [$W(28) = 0.927, P = 0.051$]. Thus, the paired samples t-test was used to compare ROA measurements before adopting the Basel II risk management policy with those after adopting the Basel II risk management policy. Therefore, the results of the Wilcoxon

Signed Ranks test showed that, on average, commercial banks in Malawi performed better in terms of ROE before the adoption of the policy (mean = 0.319, standard deviation = 0.0949) than after the adoption of the policy (mean = 0.204, standard deviation = 0.0918). This mean difference was highly significant (test value = 39.00, $P < 0.001$). Similarly, on average, commercial banks in Malawi performed better in terms of ROA before the adoption of the policy (mean = 0.055, standard deviation = 0.0215) than after the adoption of the policy (mean = 0.035, standard deviation = 0.0182), and this mean difference was highly significant (test value = 3.765, $P = 0.001$). Table 6 shows the details.

Table 6: Effect of Basel II risk management policy on financial performance of commercial banks in Malawi

| Dependent variable | Before adopting Basel II standards $n = 28$ | After adopting Basel II standards $n = 28$ | Paired sample t-test | |
|--------------------|--|---|----------------------|-----------|
| | Mean (SD) | Mean (SD) | t -value | P value |
| ROA | 0.055 (0.0215) | 0.035 (0.0182) | 3.765 | 0.001 |
| ROE | 0.319 (0.0949) | 0.204 (0.0918) | 5.177 | <0.001 |

SD = Standard Deviation.

5. CONCLUSION AND RECOMMENDATION

The first objective was to assess the effect of CAR on the financial performance of listed commercial banks in Malawi. The results show that CAR had a significant positive impact on ROA. The second objective was to analyze the effects of NPLR on the financial performance of listed commercial banks in Malawi. The results show that NPLR has a significant negative effect on ROE. The third objective was to evaluate the effect of adopting the Basel II risk on the financial performance of listed commercial banks in Malawi. The results show that adopting Basel II significantly negatively affected ROA and ROE. Therefore, it can be concluded that risk management significantly impacts the financial performance of listed commercial banks in Malawi.

These results indicate that banks need to employ adequate risk management practices that would enable them to effectively manage the risk management indicators/ratios within the acceptable thresholds to remain a going concern.

REFERENCES

- Abbas, A., Anees, S., Zaidi, H.A., Ahmad, W., & Ashraf, R.U. (2014). Credit risk exposure and performance of banking sector of Pakistan. *Journal of Basic and Applied Scientific Research*, 4(3), 240-245.
- Abedin, M. (2020). Nonperforming loans and its impact on banking sector: an investigation on the current status of Bangladesh. *Journal of Asian Development*, 6(2), 53-71. <https://doi.org/10.5296/jad.v6i2.17874>.
- Achou, T., & Tenguh, N. (2008). *Bank performance and credit risk management*. <http://www.diva-portal.org/smash/get/diva2:2459/FULLTEXT01.pdf>

-
- Afriyie, H., & Akotey, J. (2012). *Credit risk management and profitability of selected rural banks in Ghana*. Catholic University College of Ghana.
- Allen, F., & Santomero, A. (1997). The theory of financial intermediation. *Journal of Banking and Finance*, 21(12), 1461 – 1485.
- Al-shakrchy, E. (2017). The impact of credit risk managing on bank profitability, an empirical study during the pre-and post-subprime mortgage crisis: The case of Swedish commercial banks. *Journal of Business and Finance*, 3(1), 31-42.
- Alshatti, A. (2015). The effect of credit risk management on financial performance of the Jordanian commercial banks. *Investment Management and Financial Innovations*, 12 (1-2), 338-345.
- Alshebmi, A., Adam, M., & Mustafa, A. (2020). Assessing the non-performing loans and their effect on banks profitability: empirical evidence from the Saudi Arabia banking sector. *International Journal of Innovation, Creativity and Change*, 11(8), 69-93.
- Anandarajan, A., Iftexhar, H., & Cornelia, M. (2006). *The use of loan loss provisions for capital management, earnings management and signaling by Australian banks*. <https://www.fordham.edu/download/downloads/id/5532/crif06002pdf.pdf>
- Andersen, K., & Terp, A. (2006). *Risk management: Perspectives on strategic risk management*. http://erepository.uonbi.ac.ke/bitstream/handle/11295/7903/DENNIS_OCHIENG_ABUYA_MBA_2008.pdf?sequence=4.
- Antwi, F. (2019). Capital adequacy, cost-income ratio and performance of banks in Ghana. *International Journal of Academic Research in Business and Social Sciences*, 9(10), 168–194.
- Aparicio, J., & Keskiner, E. (2004). *A review of operational risk quantitative methodologies within the basel-ii framework*. Accenture Technology Labs.
- Arellano, M., & Bonhomme, S. (2009). Robust priors in nonlinear panel data models, *Journal of Econometrical*, 77 (2), 489-536.
- Arunkumar, R., & Kotreshwar, G. (2006). Risk management in commercial banks: A case study of public and private sector banks. *Capital Markets Conference Paper*, 9. Indian Institute of Capital Markets. <http://dx.doi.org/10.2139/ssrn.877812>.
- Aruwa, S., & Musa, O. (2014). Risk components and the financial performance of deposit money in Nigeria. *International Journal of Social Sciences and Entrepreneurship*, 1(11), 1-8. http://www.ijssse.org/articles/ijssse_v1_i11_514_522.pdf.
- Asemeit, C. (2012). *The effect of risk management on financial performance of insurance companies in Kenya*. Nairobi: University of Nairobi.
- Aspal, P., & Nazneen, A. (2014). An empirical analysis of capital adequacy in the Indian private sector banks. *American Journal of Research Communication*, 2(11), 28–42.
-

-
- Basel Committee on Bank Supervision. (2009). *Revisions to the Basel II market risk framework*. Malawi Stock Exchange.
- Basel Committee on Bank Supervision. (2010). *Revisions to the Basel II market risk framework*. Malawi Stock Exchange.
- Beck, R., Jakubik, P., & PiloIU, A. (2013). *Non-performing loans: What matters in addition to the economic cycle?* European Central Bank. <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1515.pdf>
- Bessis, J. (2010). *Risk management in banking* (3rd ed.). Wiley.
- Blaikie, N. (2009). *Designing social research*. Polity Press.
- Blinder, A. (2010). How central should the central bank be? *Journal of Economic Literature*, 48(1), 123-133. doi:10.1257/jel.48.1.123.
- Boahene, D., & Agyei, S. (2012). Credit risk and profitability of selected banks in Ghana. *Research Journal of Finance and Accounting*, 3(7), 2222–2847.
- Boahene, S., Dasah, J., & Agyei, S. (2012). Credit risk and profitability of selected banks in Ghana. *Research Journal of Finance and Accounting*, 3 (7), 6-15.
- Campbell, J. (2014). Empirical asset pricing. *The Scandinavian Journal of Economics*, 116(3), 593-634.
- Cavusgil, S., Knight, G., Riesenberger, J., Rammal, H., & Rose, E. (2014). *International business*. Pearson Australia.
- Chijoriga, M. (2011). Application of multiple discriminant analysis (MDA) as a credit scoring and risk assessment model. *International Journal of Emerging Markets*, 6(2), 132-147.
- Chimkono, E., Muturi, W., & Njeru, A. (2016). Effect on non-performing loans and other factors on performance of commercial banks in Malawi. *International Journal of Economics, Commerce and Management*, 4(2), 549-563.
- Chipeta, C., Wolmarans, H., & Vermaak, F. (2012). Financial liberalisation and the dynamics of firm leverage in a transitional economy: evidence from South Africa. *South African Journal of Economic and Management Sciences*, 15(2), 171-189. <http://hdl.handle.net/2263/19121>.
- Chipeta, C., Wolmarans, H., & Vermaak, F. (2012). *Financial liberalization and the dynamics of firm in the transitional economy: evidence from South Africa*. University of Pretoria. <http://hdl.handle.net/2263/19121>
- Coase, R. (1937). The nature of the firm. *Economica New Series*, 4(16), 394-395.
- Collier, P., & Woods, M. (2011). A Comparison of the local authority adoption of risk management in England and Australia. *Australian Accounting Review*. 21 (2), 111-123.
-

-
- Cooper, D., & Schindler, P. (2003). *Business Research Methods*, 8. Boston: McGraw-Hill Irwin.
- Coyle, B. (2000). *Framework for credit risk management*. Chartered Institute of Managerial Accounting.
- Creswell, J. (2013). *Research design: qualitative, quantitative, and mixed method approaches*. Sage publication.
- DiMaggio, P., & Powell, W. (1983). The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160
- DiMaggio, P., & Powell, W. (1991). *The new institutionalism in organizational analysis*. University of Chicago Press.
- Dreca, N. (2013). Determinants of capital adequacy ratio in selected Bosnian banks. *International symposium on econometrics, operations research, and statistics*, 149-162.
- Echekoba, F., Egbunike, C., & Kasie, E. (2014). Determinants of bank profitability in Nigeria: Using camel rating model. *International Journal of Economics and Finance*, 6(12), 93-113.
- Essendi, L. (2013). *The effect of credit risk management on loans portfolio among saccoes in Kenya*. Nairobi: University of Nairobi.
- Etikan, I., Musa, S., & Alkassin, R. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical Statistics*, 5(1), 1-4.
- Fatemi, A., & Glaum, M. (2000). Risk management practices in German firms. *Managerial Finance*, 26(3), 1-17.
- Fite, D., & Pfleiderer, P. (1995). *Risk management: Problems and solutions*. McGraw-Hill.
- Freeman, R. (1984). *Strategic management: A stakeholder approach*. Pitman.
- Gakure, R., Ngugi, J., Ndwiga, P., & Waithaka, S. (2012). Effect of credit risk management techniques on the performance of unsecured bank loans for 58 employed commercial banks in Kenya. *International Journal of Business and Social Research*, 2(4), 221-236.
- Gill, J., & Johnson, P. (2002). *Research methods for managers*. Sage Publications.
- Gizaw, M., Kebede, M., & Selvaraj, S. (2015). The impact of credit risk on profitability performance of commercial banks in Ethiopia. *Africa Journal of Business Management*, 9(2), 59-66.
- Greuning, H., & Bratanovic, S. (2009). *Analyzing banking risk: A framework for assessing corporate governance and risk management*.
<https://openknowledge.worldbank.org/bitstream>
- Gweyi, M., & Karanja, J. (2014). Effects of financial leverage on financial performance of deposit taking savings and credit co-operative in Kenya. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 2, 176-194.
-

-
- Hosna, A., Manzura, B., & Juanjuan, S. (2009). *Credit risk management and profitability in commercial banks in Sweden*. School of Business, Economics and Law, University of Gothenburg.
- Houser, J. (2012). *Nursing research reading, using, and creating evidence. nursing research*. Jones & Bartlett Learning.
- Hudin, N., & Hamid, A. (2014). Drivers to the implementation of risk management practices: a conceptual framework. *Journal of Advanced Management Science*, 2(3), 163-169.
- Hussey, J., & Hussey, R. (1997). *Business research: A practical guide for undergraduate and postgraduate students*. Macmillan.
- Hyun, J., & Rhee, B. (2011). Bank capital regulation and credit supply. *Journal of Banking & Finance*, 35(2), 323–330. <https://doi.org/10.1016/j.jbankfin.2010.08.018>
- Ifeacho, C., & Ngalawa, H. (2014). Performance of the South African banking sector since 1994. *The Journal of Applied Business Research*, 30(4), 1183-1194.
- International Monetary Fund. (2015). *Country Report for Malawi*. <https://www.imf.org/external/pubs/ft/scr/2015/cr15345.pdf>
- Ishtiaq, M. (2015). *Risk management in banks: determination of practices and relationship with performance*. University of Bedfordshire.
- Jensen, M., & Meckling, W. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3, 305-360.
- Jin, Y., & Jorion, P. (2006). Firm value and hedging: evidence from us oil and gas producers. *The Journal of Finance*, 61 (2), 896-919.
- Jolevski, L. (2017). Non-Performing loans and profitability indicators: the case of the Republic of Macedonia. *Journal of Contemporary Economic and Business Issues*, 4(2), 5-20.
- Kaaya, I., & Pastory, D. (2013). Credit risk and commercial banks performance in Tanzania: A panel data analysis. *Research Journal of Finance and Accounting*, 4(16), 55-62.
- Kamphoni, A. (2020). *Banking sector report*. Cedar Capital.
- Kithinji, A. (2010). *Credit risk management and profitability of commercial banks in Kenya*. School of Business, University of Nairobi.
- Klepczarek, E. (2015). Determinants of European banks' capital adequacy. *Comparative Economic Research*, 18(4), 81-98.
- Klimczak, M. K. (2007). *Risk management theory: a comprehensive empirical assessment, Working Paper*. Warsaw: Leon Kozminski Academy of Entrepreneurship and Management in Warsaw.
-

-
- Kodithuwakku, S. (2015). Impact of credit risk management on the performance of commercial banks in Sri Lanka. *International Journal of Scientific Research, and Innovative Technology*, 2(7), 24-29.
- Kolapo, T., Ayeni, R., & Oke, M. (2012). Credit risk and commercial bank's performance in Nigeria: A Panel Model Approach. *Australian Journal of Business, and management Research*, 2(2), 31-38.
- Kumar, R. (1999). *Research methodology: a step-by-step guide for beginners*. Sage Publications.
- Lalon, R. (2015). Credit Risk Management (CRM) practices in commercial banks of Bangladesh: a study on Basic Bank Ltd. *International Journal of Economics, Finance and Management Sciences*, 3(2), 78-90.
- Lan, L., & Heracleous, L. (2010). Rethinking agency theory: the view from law. *The Academy of Management Review*, 35(2), 294-314.
- Leedy, P. (1997). *Practical research: planning and design*. Prentice-Hall.
- Li, F., & Zou, Y. (2014). *The impact of credit risk management on profitability of commercial banks: a study of Europe*. [Masters thesis]. Umea University.
- Luc, L., & Valencia, F. (2010). *Resolution of banking crises: the good, the bad, and the ugly*. International Monetary Fund.
- Lucas, R. (1978). Asset prices in an exchange economy. *Econometrica*, 46(6), 1429-1445.
- Magnifique, U. (2013). *The impact of credit risk management on the financial performance of commercial banks in Rwanda*. [Masters thesis]. University of Nairobi.
- Margrabe, K. (2007). The incidence of secured debt: evidence from the small business community. *Journal of Financial and Quantitative Analysis*, 24, 379-394.
- Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77-91.
- Mayers, D., & Smith, C. (1987). Corporate insurance and the underinvestment problem. *The Journal of Risk and Insurance*, 54(1), 45-54.
- Meyer, J., & Rowan, B. (1977). Institutionalized organizations: formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.
- Miller, M., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433.
- Milton, F. (1953). *The methodology of positive economics*. University of Chicago Press
- Mishra, P., Rai, A., & Rai, S. (2019). Land use and land cover change detection using geospatial techniques in the Sikkim Himalaya, India. *The Egyptian Journal of Remote Sensing and Space Science*, 3(2), 133-143. <https://doi.org/10.1016/j.ejrs.2019.02.001>.
-

-
- Mkandawire, P. (2016). *An analysis of the determinants of bank performance in Malawi: a case of listed commercial banks*. MPRA Paper, 92392. <https://mpr.a.ub.uni-muenchen.de/92392/>
- Modigliani, F., & Miller, M. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261-297.
- Malawi Stock Exchange . (2020). *Market report*. <https://mse.co.mw/market/reports/2301>.
- Munangi, E., & Sibindi, A. (2020). An empirical analysis of the impact of credit risk on the financial performance of South African banks. *Academy of Accounting and Financial Studies Journal*, 24(3), 1-15.
- Musyoki, D., & Kadubo, A. (2012). The impact of credit risk management on the financial performance of banks in Kenya for the period 2000-200. *International Journal of Business and Public Management*, 2(2), 72-80.
- Muya, M. (2013). *An investigation into factors that determine financial performance of insurance companies in Kenya*. University of Nairobi.
- Nataraja, N., Chilale, N., & Ganesh, L. (2018). Financial performance of private sector banks in India. *Academy of Accounting and Financial Studies Journal*, 22(2), 1-12.
- Nduku, M. (2013). *The effect of capital structure on the financial performance of commercial banks in Kenya*. University of Nairobi.
- Ngwa, L. (2016). *Impact of financial distress on UK bank performance and customer loyalty: an empirical study*. University of Wales.
- Nikolaidou, E., & Vogiazas, S. (2014). Credit risk determinants for the Bulgaria banking system. *International Advance Economics Research*, 20, 87-102.
- Noor, M., & Das, P. (2020). Impact of credit risk management on financial performance: panel evidence from state-owned and private commercial banks in Bangladesh. *Cost and Management*, 47, 22–35.
- Nshala, A. (2017). *The effect of credit risk on financial performance of commercial banks in Tanzania*. The Open University of Tanzania.
- Nyabicha, O. (2017). *Effect of credit risk management on financial performance of commercial banks listed at the Nairobi Securities Exchange, Kenya*. Kenyatta University.
- Nzongang, X., & Atemnkeng, R. (2011). Efficiency of the banking sector in South Africa. *African Economic Conference Fostering Development in an Era of Financial & Economic Crises 2021*, 3(12).
- Oldfield, G., & Santomero, A. (1995). *The place of risk management in financial institution*. Center for Financial Institutions Working Papers 95-05, Wharton School Center for Financial Institutions, University of Pennsylvania.
-

-
- Omasete, C. (2014). *The effect of risk management on financial performance of insurance companies in Kenya*. [Masters thesis]. University of Nairobi, Nairobi. <http://hdl.handle.net/11295/74732>
- Ongore, V., & Kusa, G. (2013). Determinants of financial performance of commercial banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237-252.
- Opoku-Adarkwa, R. (2011). *Risk management and bank performance: A case study of First Atlantic Merchant Bank Ghana limited (FAMBL)*. [Masters thesis], Kwame Nkrumah University of Science and Technology, Ghana. .
- Petria, N., Capraru, B., & Ihnatov, I. (2015). Determinants of banks' profitability: evidence from EU 27 Banking Systems. *Procedia Economics and Finance*, 20, 518-524. [https://doi.org/10.1016/S2212-5671\(15\)00104-5](https://doi.org/10.1016/S2212-5671(15)00104-5).
- Poon, S., & Swatman, P. (1999). Longitudinal study of expectations in small business internet commerce. *International Journal of Electronic Commerce*, 3(3), 21-33.
- Povilaitis, B., & Vidzbelytė, S. (2013). Commercial banks performance 2008–2012. *Business, Management and Education*, 11(2), 189-208.
- Prabhu, R., & Raja, R. A. (2018). Urban slum detection approaches from high-resolution satellite data using statistical and spectral based approaches. *Journal of the Indian Society of Remote Sensing*, 46, 2033-2044. <https://doi.org/10.1007/s12524-018-0869-9>.
- Rahi, S. (2017). Research Design and Methods: A systematic review of research paradigms. *Journal of Economics and Management Sciences*, 6(2), 1-5.
- Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues, and instruments development. *International Journal of Economic and Management Science*, 6, 403. doi:10.4172/2162-6359.1000403.
- Reserve Bank of Malawi. (2019). *Financial stability report 2019*. Reserve Bank of Malawi.
- RBNZ. (2007). *Capital adequacy ratios for banks –simplified explanation and example of calculation*. Reserve Bank of New Zealand.
- Rehman, S., Mohamed, R., & Ayoup, H. (2019). The mediating role of organisational capabilities between organisational performance and its determinants. *Journal of Global Entrepreneurship Research*, 9, 30(2019). doi:10.1186/s40497-019-0155-5.
- Remenyi, D. (2005). Tell me a story –a way to knowledge. *The Electronic Journal of Business Research Methodology*, 3(2), 133-140.
- Ross, S. (1973). The economic theory of agency: the principal's problem. *American Economic Review*, 62(2), 134-139.
- Saeed, M., & Zahid, N. (2016). The impact of credit risk on profitability of the commercial banks. *Journal of Business & Financial Affairs*, 5(2), 1-7.
-

-
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. . Prentice Hall.
- Sbârcea, I. (2017). Credit risk versus performance in the Romanian banking system. *Studies in Business and Economics*, 12(3), 171–180.
- Schmit, J., & Roth, K. (1990). Cost-effectiveness of risk management practices. *Journal of Risk and Insurance*, 57(3), 455-470.
- Sebayang, P. (2020). *The impact of the capital adequacy ratio, non-performing loan against to return on equity (case study private bank in Indonesia)*. The 1st International Conference on Social Sciences and Humanities (ICSH 2019). SHS Web of Conferences, 76. <https://doi.org/10.1051/shsconf/20207601035>.
- Shah, M., & Khan, S. (2017). Factors affecting commercial banks profitability in Pakistan. *Journal of Business and Tourism*, 3(1), 1-13.
- Singh, S., Basuki, B., & Setiawan, R. (2021). The effect of non-performing loan on profitability: empirical evidence from Nepalese commercial banks. *The Journal of Asian Finance, Economics and Business*, 8(4), 709-716.
- Sirri, E., & Tufano, P. (1998). Costly search and mutual fund flows. *Journal of Finance*, 53(5), 1589-1622. <https://doi.org/10.1111/0022-1082.00066>.
- Smith, C., & Stulz, R. (1985). The determinants of firm's hedging policies. *Journal of Finance and Quantitative Analysis*, 20(4), 394-405.
- Smithson, C., & Wilford, D. (1995). *Managing financial risk*. Irwin.
- Sookye, L., & Mohamudally-Boolaky, A. (2019). Effectiveness of financial risk management framework: an analysis of the Mauritian banking sector. *Journal of Financial Risk Management*, 8, 106-124. doi:10.4236/jfrm.2019.82008.
- Togtokh, E. (2012). *Credit Risk Measurement. The case study of Mongolian small and medium sized firms*. Charles University in Prague. <https://is.cuni.cz/webapps>.
- Tolbert, P., & Zucker, L. (1983). Institutional sources of change in the formal structure of organizations: The diffusion of civil service reform, 1880–1935. *Administrative Science Quarterly*, 28(1), 22-39. <https://doi.org/10.2307/2392383>.
- Wanjohi, S., Wanjohi, J. G., & Ndambiri, J. M. (2017). The effect of financial risk management on the financial performance of commercial banks in Kenya. *International Journal of Finance and Banking Research*. 3(5), 70-81. doi:10.11648/j.ijfbr.20170305.12.
- Wessel, R. (1984). The debt crisis in Latin America. *Savings and Development Review*, 8, 5-13.
- Williamson, O. (1998). The institutions of governance. *The American Economic Review*, 88(2), 75-79. <https://www.jstor.org/stable/116896>.
-

SSIRC 2023-012**METHODS USED BY THE SOUTH AFRICAN POLICE SERVICE TO COMBAT STOCK THEFT BY EMPLOYING DEOXYRIBONUCLEIC ACID POLYMERASE CHAIN REACTION AND SEQUENCING IN LIMPOPO PROVINCE****W. Maluleke**

University of Limpopo, South Africa

C. Harper

University of Pretoria, South Africa

ABSTRACT

The selected South African Police Service Stock Theft Units (SAPS STUs) in the Limpopo (LIM) Province partly use Deoxyribonucleic Acid (DNA) technology as a method of effectively investigating stock theft. However, majority of livestock owners are unfamiliar with the procedures followed for the DNA Polymerase Chain Reaction (PCR) and sequencing, as collected from the stock theft scenes. This study was qualitative in nature, aided by exploratory research objective. Thirteen (13) participants were purposively selected, involving the SAPS STU Detectives/Investigators and a Provincial Co-ordinators from Limpopo (LIM) Province. All thirteen participants were subjected to semi-structured Key Informants Interviews (KIIs) to share their experiences and related challenges on the usage of DNA PCR and sequencing to combat stock theft. The inductive Thematic Content Analysis (TCA) was employed for data analysis processes. This study established that the local SAPS partly relies on DNA technology to combat stock theft, yet it seems that their problems are far beyond this intervention systems (DNA PCR and sequencing). Beyond the application of DNA PCR and sequencing, the livestock owners were found to be negligent in protecting and being accountable for their livestock. Some participants indicated that these farmers do not often look after their livestock, and they do not brand-mark or tattoo them, and they do not count them either, further invalidating the effectiveness of the newly highlighted methods (DNA PCR and sequencing) to combat this crime. For ‘conclusion and recommendations’, this study offers that there is a dire need for the SAPS STUs to work closely with private organisations like the University of Pretoria (UP) Onderstepoort VGL to actively support the lacking stock theft investigations, while emphasising the correct usage of DNA PCR and sequencing, with the available conventional methods. This strategy can enable continuous use of ‘stock theft information and research’ to collaborate with other relevant public or private departments, stakeholders, or Law Enforcement Agencies (LEAs), while mobilising these Anti-Stock theft structures to collectively address contributory factors to stock theft by initiating efficient strategies to respond to it holistically. It is also confirmed that multi-disciplinary operations can also add to the works of DNA PCR and sequencing, further aiding to the Anti-Stock theft operations on National borders neighbouring LIM Province through Mozambique, Zimbabwe, and Botswana.

KEYWORDS: Combating, Deoxyribonucleic Acid, Limpopo Province, Methods, Polymerase Chain Reaction, Sequencing, South African Police Service, Stock theft

1. INTRODUCTION

Clack (2013) contends that agriculture remains a cornerstone of South African economy, calling for academic research to be conducted focusing on various crimes committed within rural agricultural settings, these crimes negatively affect rural economy and food security. Many researchers neglect studies on crimes occurring in South African rural areas. Notably, the livestock are regarded to be important for many South African livestock farmers.' This commences from farmers with One (01) or Two (02) livestock, to the smallholders, as well as medium to large-scale farmers with larger herds and flocks. Negatively, livestock farmers are becoming victims of stock theft; this is a threat to the stability of 'livestock agricultural sector.' Livestock and crop farming are said to be major sources of food production and income for rural farming. They are also kept as sources of 'investment, insurance against disaster and cultural purposes.' This crime affects all South African provinces, occurring frequently than other types of property-related crimes and it is regarded to be a serious threat in South African regions bordering other countries; these regions are the Eastern Cape (EC), Free State (FS), KwaZulu-Natal (KZN) and Limpopo (LIM) Provinces. Therefore, empirical, and theoretical studies are highly sought to identify research gaps in the reviewed existing literature. There is an urgent need to conduct studies on stock theft prevalence and DNA PCR and sequencing as methods used by the SAPS to combat stock theft to possible offer solutions of responding to this crime, while broadening the body of knowledge in the fields of 'Criminology, Criminal Justice, Forensic science, Investigations, and policing (Maluleke, 2016).

The agricultural arena in South Africa is believed to be threatened heavily by crime, this revelation is supported by the Agriculture South Africa (Agri SA), looking at '2018 National Agricultural Sector Crime Survey,' it was indicated that about R5,45 billion was the total direct cost of agricultural crimes across the country in 2017, while replacement costs was approximately R2,3 billion (Coleman, 2023). Moreover, the safety of South African 'farming and rural communities is heavily linked to food security. Therefore, the 'farming and rural communities' vulnerability to different crimes remains a huge problem, not only local farmers but the entire Nation is affected. This negative experience includes 'financial losses, violence spike and brazenness of potential perpetrators, aided by negative emotional wellbeing of livestock farmers, family members, workers, and friends (Coleman, 2022). Furthermore, Mapholi (2015) provides that some of major challenges facing livestock farmers and game productions are stock theft and poaching in South Africa. The consequences of this crime are economical in nature, which affects available sectors of rural and urban farming communities; the established and large commercial organisations, stud breeders and rural farmers, owning One (01) or Two (02) livestock, (Mapholi, 2016). As a result, the South African Police Service (SAPS) identified this crime (Stock theft) as a priority area crime, this saw the establishment of partnership in 1996 to closely address stock theft challenges using the DNA technology. This union involved the SAPS and the South African Animal Genetics Laboratory (AGL) of Animal Research Council (ARC).

Practically, from about 45 000 reported cases of stock theft, only 8 000 made it to court. Approximately ‘more than 500’ of these cases could involve ‘more than 3 000’ DNA exhibits, for possible analysis. Positively, 95% of the cases in question are often resolved using this technology, with potential suspects (Stock thieves) prosecuted. Therefore, it is hoped that the findings of this study will enable readers to think of other avenues, based on facing similar stock theft problem across South African rural areas, while considering the applications of DNA Polymerase Chain Reaction (PCR) and sequencing of DNA evidence, Mapholi (2015). Interested readers will be invited to make sense of the subject under research, by looking at their experiences concerning the conceptualisation of DNA and offering other unrelated contributions to stock theft prevalence in Limpopo Province and limited knowledge on DNA technology applications for combating stock theft in Limpopo Province. Readers will also be asked to explore and provide rich descriptions based on understanding the methods used by SAPS in combating stock theft by employing DNA PCR and sequencing in Limpopo Province. This can be done to ensure that the study findings can be applied to other settings facing similar problems (Stock theft problem and proper applications of DNA PCR and sequencing), to build technological tools for combating stock theft in South African rural areas and other parts of the country.

There seems to be little research done on stock theft, DNA PCR, and sequencing, as a rural crime in South Africa is noticeable, and the Criminology and Criminal Justice academics are left wanting to study the subjects greater in-depth. This limited criminological attention invalidates the fact that within the livestock farming sector, livestock farming contributes largely to the economy and the associated effects for this rural crime cannot be underestimated (Manganyi, Maluleke & Shandu, 2018). Therefore, the educational insights offerings geared on the effective use of DNA samples, resulting from DNA PCR and sequencing can positively respond to this crime (Maluleke, 2022c). Maluleke (2020b) further reveals that stock theft is becoming a growing problem worldwide, coupled with many challenges to effectively combat. As initially stated, from many challenges faced by the South African livestock farmers, this crime is touted to be the biggest obstacle (Maluleke, 2020c). Negatively, the current working relationship between the local SAPS, livestock farmers, community members and Anti-Stock theft structures is not a healthy state, largely contributing to stock theft increase across the country; this is supported by ineffective and inadequate deterrent strategies (Maluleke, 2022b).

Importantly, Maluleke and Mofokeng (2018) point out that their limited studies in South Africa which focus on the challenges facing implementations of DNA [PCR and sequencing] to combat stock theft. The use of this technology, by combining conventional and DNA technology (Focusing on PCR and sequencing), as well as other related technologies [Wireless Fidelity - Wi-Fi, Wireless Sensor Network - WSN, Radio Frequency Identification - RFID and ZigBee] to combat stock theft seems to be a new concept to the relevant stakeholders (Maluleke, 2021b). Also, the witnessed limited knowledge on applications of DNA technology remains a worrying factor (Maluleke, 2021a). It is also submitted that many technologies can be adopted to re-address this crime and are becoming important for the South African Criminal Justice System (CJS) operationalisations. Negatively, the usage of this technology remains vague to relevant stakeholders, instead; they

heavily rely on the adoption of conventional methods, like brand-marking, earmarking, and tattooing (Maluleke, 2018). The over-reliance on these methods does not help the current stock theft situation, in terms of policing, as the stock thieves' syndicates are becoming more organised and complex (Maluleke, Tshabalala & Tolla, 2021). The available conventional methods focus on physical matching of livestock hides, bones and ivory, the identification tools are limited to brand marking, earmarking, and tattooing, with a call to integrate them with the use of DNA technology to combat stock theft cross South African rural areas. This can be aided by looking at possibilities of introducing DNA technology, monitoring the implementation of the Criminal Law [Forensic Procedures] Amendment Act (No. 37 of 2013) [the 'DNA Act'] – “This Act ensures that the creation of the National Forensic DNA Database of South Africa will function effectively, not only as a tool for gathering incriminating evidence, but also for gathering evidence to eliminate suspects and to safeguard against wrongful convictions / arrests as stated previously or other miscarriages of justice” into the current legislative framework of Stock Theft Act (No. 57 of 1959) and Animal Identification Act (No. 6 of 2002).

Furthermore, Kempen (2015) mentions that DNA technology can be positively used to link stock thieves to stock theft scenes. This technology can identify potential suspected criminals with accuracy, using biological evidence, and it can also and exonerate persons them, if they are mistakenly accused or convicted of this crime. This technology offer accuracy and fairness in the CJS. It can also be used as one of the important forensic instruments to combat this crime and it is becoming an essential component of the CJS, based on investigations purposes. The DNA-based technologies for combating stock theft are adopted for determination of livestock “identity, ownership, percentage, traceability, and the species origin of animal products such as tissue, blood, and skin. Apart from identical twins or clones, no two animals are genetically the same,” National Stock Theft Prevention Forum [NSTPF] (2016).

To this end, the livestock DNA technology is regarded as its fingerprints or unique identification. The small quantities of DNA technology are required to confirm a possible linkage. The applications of DNA technology to combat stock theft can be conducted as follows: The ‘hair samples (I.e., A source of DNA) are collected from an individual livestock to be stored in a laboratory as a reference sample. “When such livestock is injured or slaughtered at a stock theft scene, or a piece of meat from a stolen livestock is found in possession of a potential suspect, a tissue sample is taken and compared in the laboratory to the stored reference sample” (NSTPF, 2016:35). If the DNA fingerprint of the reference samples agrees with a sample collected from the stock theft scene, a suspect in question can be positively linked to the stock theft scene or committed stock theft and the collected and packaged evidence can be used for prosecutions. Moreover, even “if there is no reference sample available, conviction can be still possible; if the DNA collected from ‘blood, bloodstains, meat, or other tissues’ found at stock theft scene compares with ‘blood’ found on a suspect ‘s clothes, tools used during commission of stock theft, or meat found in his/her possession” (NSTPF, 2016:35). Evidentially, the locations to obtain DNA evidence are many, consisting of clothing, bodily fluids (Semen, saliva, sweat, blood), fingerprints, tissue, skin cells and hair roots, among others, (Maluleke, Mokwena & Olofinbiyi, 2019). According to Maluleke (2022b), the ‘DNA technology, DNA testing, DNA profiling or Genetic fingerprinting’ are regarded as

techniques adopted to identify and distinguish livestock by their DNA samples, focusing on patterns uniqueness of DNA sources (Carcass, fingerprints, footprints, hair, skin cells, blood, bodily fluids, pieces of clothing and fibres, alike). Therefore, a dire need of DNA technology applications to combat stock theft in South Africa should urgently prevail (Maluleke, 2020a).

Essentially, the success of methods used by the SAPS to combat stock theft by employing DNA PCR and sequencing in Limpopo Province is dependent on ensuring that collecting of samples at a stock theft scene are done correctly, as well as adequate processing and analysing the collected evidence in the laboratory to report the findings thereof. To ensure that all relevant stakeholders handle the processes correctly, continuous training offered by the ARC to SAPS members is commendable. “This training looks at ‘DNA sampling, preservations, documentations, and dispatching’ of samples to the laboratory” (NSTPF, 2016:35). Thus, this study explored the use of DNA technology as a tool to combat stock theft in the selected rural areas of LIM Province as featured in the top 30 police stations mostly affected by stock theft. The research problem broadly focuses on perceived variations, focusing on the use of DNA technology to combat stock theft in LIM Province [Relying on DNA PCR and sequencing].

The study aim was used to report on study findings regarding the associated limited knowledge on DNA technology applications for combating stock theft, while offering the conceptualisation of DNA and other unrelated contributions to stock theft prevalence in Limpopo Province in respect of what other researchers and relevant stakeholders’ state about its essentiality. This was done by exploring the “*value of using DNA technology [Focusing on DNA PCR and sequencing] in combating stock theft in LIM Province*. Therefore, it is envisaged that the findings of this study will be used to; **a)** Understand the diverse experiences in conducting future research studies on the use of DNA technology [PCR and sequencing] against stock theft, **b)** To offer analysis for future improvements and interventions systems for the local SAPS STUs, **c)** To assist the SAPS STUs [And other relevant stakeholders] in providing services related to the use of DNA technology (PCR and sequencing) in combating stock theft, and; **d)** To inform review of legislative frameworks relating to the policing of stock theft and use of DNA technology [PCR and sequencing].

2. LITERATURE REVIEW

To peruse relevant sources of information, the topic was divided into the following key concepts: DNA technology, PRC and sequencing, Chain of Custody, *Modus Operandi (MO)*, investigations, stock theft combating, detections, and prosecutions. The researchers did not find any literature studies or publications with the same title presented by this study. However, there was information on general utilisation of DNA for various agricultural and veterinary functions. Considerably, Professor (Prof) Witness Maluleke of University of Limpopo (UL) researched extensively on this subject, his Dissertation and Thesis, as well as accredited research outputs and commentary research works were used as baselines for this study. Importantly, none of his research works addressed the methods used by the SAPS in applying DNA PCR and sequencing technology to combat stock theft and gather related experiences in terms of ‘DNA PCR and sequencing. Therefore, the research team sees the need to continue with the research to address the gap identified.

This study emphasised that if DNA PCR and sequencing can be managed, used, shared, transferred, and retained effectively, stock theft crime can be curtailed in South African rural areas. This technology can be employed as a key mechanism of stock theft combating, prevention, and investigations in LIM Province. This province can be used as a learning grounds, where shortfalls directed to stock theft and applications of DNA PCR and sequencing, based on previous outcomes of conventional methods, combined with available technologies can be positively used to combat stock theft to inform contemporary methods and improve future research works of DNA technology, as Table 1 refers to the top Ten (10) police stations with the most reported stock theft cases in LIM Province. The table shows that this crime continues to be on the rise in reference to the SAPS Fourth quarter crime statistics, from January (Jan) to March (Mar) -2019-2023.

Table 1: Stock theft Fourth quarter crime statistics (January to March -2019-2023)

| Provincial position | Republic of South Africa position | Station | District | Jan 2019 to Mar 2019 | Jan 2020 to Mar 2020 | Jan 2021 to Mar 2021 | Jan 2022 to Mar 2022 | January 2023 to March 2023 | Count Difference |
|---------------------|-----------------------------------|--------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------------|------------------|
| 1 | 19 | Gilead | Waterberg District | 9 | 7 | 8 | 19 | 32 | 13 |
| 2 | 22 | Matlala | Capricorn District | 21 | 25 | 12 | 29 | 30 | 1 |
| 3 | 35 | Giyani | Mopani District | 8 | 3 | 6 | 16 | 26 | 10 |
| 4 | 47 | Lebowakgomo | Capricorn District | 27 | 26 | 23 | 30 | 22 | -8 |
| 5 | 57 | Dennilton | Sekhukhune District | 17 | 17 | 8 | 31 | 19 | -12 |
| 6 | 64 | Nebo | Sekhukhune District | 5 | 7 | 6 | 12 | 19 | 7 |
| 7 | 101 | Mankweng | Capricorn District | 32 | 8 | 17 | 25 | 14 | -11 |
| 8 | 105 | Hlogotlou | Sekhukhune District | 15 | 16 | 20 | 15 | 14 | -1 |
| 9 | 122 | Mahwelereng | Waterberg District | 13 | 17 | 8 | 23 | 13 | -10 |
| 10 | 129 | Senwabarwana | Capricorn District | 8 | 7 | 2 | 12 | 13 | 1 |

Source: SAPS (2019-2023)

The prevalence of stock theft in LIM Province works against efficiency of stock theft investigations, as well as protection and preservation of livestock, such as ‘Cattle, Goats and Sheep,’ amongst others. Therefore, this study showcased the methods used by the local SAPS in applying the DNA PCR in LIM Province. It is envisaged that this study will probably address food security by transferring existing knowledge of addressing the needs of South African rural livestock farmers, based on local SAPS experiences in relation to DNA PCR and sequencing. The collaborative efforts between the local SAPS and ARC, Department of Agriculture, Forestry and Fisheries (DAFF),

Department of Justice and Constitutional Development (DoJ & CD) / National Prosecuting Authority (NPA), rural livestock farmers and other relevant Anti-Stock theft bodies can be enhanced.

Pakistan (2014) highlights that collaborations should be encouraged for potential stock thieves to be prosecuted. Worryingly, many stolen livestock are reportedly sold for the pot in local townships and other densely populated residential areas. The unregulated livestock trading practice is the major contributory factor for stock theft. Moreover, the South African CJS is facing many challenges to address stock theft, including limited SAPS resources, inadequate investigations, improper applications of DNA PCR and sequencing, long duration of stock theft trials and inter-component cooperation. Furthermore, the confinement to a correction centre seems to be ineffective, it does not act as a deterrent for stock theft. The Red Meat Producers Organisations (RPOs), 'Abattoirs, Auctioneers, Livestock agents and Transporters' of livestock are informed of current activities of stock theft activities in a public domain by 'offenders' awaiting trials, within the centres in question, which is uncommon practice. Therefore, this study made use of methods employed by SAPS members for applications of DNA PCR and sequencing for combating stock theft to clearly offer accessible CJS effective partnerships of Anti-Stock theft [Relevant] stakeholders to break culture of isolation and establish culture of progress. The establishment of strategies, integrating conventional methods, available technologies, preliminary investigations and the use of DNA PCR and sequencing are very important. Therefore, the research problem guiding this study broadly focuses on the perceived experiences in the use of DNA PCR and sequencing, as employed by the local SAPS to combat stock theft in LIM Province (Based on high prevalence of stock theft experienced) by means of identified structures within the CJS (SAPS STUs Detectives/Investigators and SAPS STUs Provincial Co-ordinator of LIM Province).

Additionally, the DNA technology refers to the sequencing, analysis, and cutting-and-pasting of DNA. Common forms of DNA technology include DNA sequencing, PCR, DNA cloning, and gel electrophoresis. This technology is regarded to be important for both basic and applied (Practical) biology studies. With the advent of gene editing and personalised in the fields of 'Forensic Science and Medicine,' there has been an increase demand for reliable and efficient DNA isolation methods to yield adequate quantities of high-quality DNA with minimal impurities (Dairawan & Shetty, 2020). The DNA isolated from various biological samples can be used for many downstream applications, namely DNA sequencing, PCR, quantitative PCR (qPCR), Southern blotting, Random Amplification of Polymorphic DNA (RAPD), preparation for genomic libraries, as well as Amplified Fragment Length Polymorphism (AFLP), Restriction Fragment length Polymorphism (RFLP), short tandem repeat polymorphism (STRP), Single Nucleotide Polymorphism (SNP) and Variable Number of Tandem Repeat (VNTR) applications (Dhaliwal, 2013).

Further, another technique used to make many copies of a DNA sequence refers to the **DNA PCR** used in many medical diagnostic tests and forensics applications, as well as basic laboratory research. The PCR is a widely used DNA manipulation techniques; this application is almost in every area of modern biology. The PCR reactions produce many copies of target DNA sequence

starting from a piece of template DNA. This technique can be used to make many copies of DNA that is present in trace amounts (I.e., In a droplet of blood at a stock theft scenes) (Khan Academy, 2022). Equally, the **DNA sequencing** involves determining the sequence of nucleotide bases (As, Ts, Cs, and Gs) in a DNA molecule. In some cases, just one piece of DNA is sequenced at a time, while in other cases, a large collection of DNA fragments [Such as those from an entire genome] may be sequenced as a group] (Khan Academy, 2022).

3. METHODOLOGY

This qualitative study followed the exploratory research design by ensuring that selected participants were familiar with the subject to increase their understanding of this application of DNA PCR and sequencing to solve the problem of stock theft in the LIM Province (Matlala - Republic of South Africa position = 29 and provincial position = 1). The Twelve (12) SAPS STU Detectives/Investigators and One (01) Provincial Co-ordinators from Limpopo (LIM) Province will be purposively selected to form part of semi-structured Key Informants Interviews (KIIs) to share their experiences and related challenges on the usage of PCR and sequencing to combat stock theft. Overall, thirteen (13) participants formed part of this study. The inductive Thematic Content Analysis (TCA) was employed for data analysis process. The collected data were analysed using the Six phases, namely: 1) Familiarisation with data, 2) Generating codes, 3) Identifying themes, 4) Reviewing study themes, 5) Defining themes, and 6) Report writing] of inductive TCA, (Braun & Clarke, 2014 and Alhojailan, 2012:4). The four principles to ensure trustworthiness 1) Credibility, 2) Transferability, 3) Dependability and 4) Conformability] were adhered to and the ethical approvals were obtained from University of Limpopo and SAPS

4. RESULTS AND DISCUSSIONS

To provide answers to the aim of this study [*Exploring the methods used by the SAPS to combat stock theft by employing DNA PCR and sequencing in LIM Province*], two pertinent questions in number 1 and 2 were posed to the selected 13 participants, forming part of the semi-structured KIIs participants. Their expressed direct verbatim quotations are indicated in this section. The referencing method for the conducted interviews followed this numerical sequence of notation: (5:1:2). The First digit (5) relates to the folder number from the voice recorder, the Second digit (1) refers to the interview number within the folder, and the Third digit (2) means the sequence of the conducted KIIs.

1). Provide descriptions based on your experiences on the use of DNA technology (DNA PCR and sequencing) in combating stock theft in your area?

2). Can effective use of DNA technology (PCR and sequencing) in combating stock theft influence prosecution rates in your area?

Some of the responses shared by the selected participants were recorded as follows, based on the SAPS employability of DNA PCR and sequencing methods in Limpopo Province:

“DNA technology is used when a livestock gets stolen or any dispute arises relating to the ownership, we normally take blood of the parents together with the livestock (Bull and Heifer) under dispute to send to ARC in Irene to prove then alleged ownership” (KII-03:07:07).

“In instances where a livestock is slaughtered in a stock theft scene, it is possible for us to link what we find there with a suspect through the use of blood in most cases, this can be linked with clothing worn during a commission of stock theft crime” (KII-1:13:13).

“Yes, this is a collaborative effort, we work closely with the ARC-Irene and part of the DAFF (Animal production section) familiarise the livestock farmers and communities at large about the use of DNA technology in combating stock theft” (KII-5:1:1).

“In one of the notable cases I dealt with involving the use of DNA technology, the suspect removed the ears of a slaughtered bull and places them in the old carcass. My investigative intelligence led me into locating the hidden ears. They (Ears) matched with the blood found in the stock theft scene and the meat at the suspect’s possession to create a positive link and the suspects was arrested” (KII-03:07:07).

Based on the effectiveness of using DNA technology (Employed PCR and sequencing) in combating stock theft, the selected participants reached agreements on their offered responses, as follows:

“The use of DNA technology can improve number of stock theft cases, which DNA investigations are utilised to give proper coverage in the media on results of trials, without explaining details, which can be used by Offenders to counter scientific investigations and introduce the Livestock Identification Catalogue (LIDCAT) data base concept to livestock owners” (KII-06-02-01).

“Yes, absolutely - because culprits who would otherwise get away can now be linked to the stock theft scenes. One must further consider that it is very rare to find willing eyewitnesses in rural communities who are prepared to testify against persons they know, simply because once they testify, they live in fear of their lives” (KII-06-01-01).

“There is no real impact in combatting, but its evidence value cannot be argued” (KII- 06-02-01).

“Yes, however, this requires collective efforts from multi-agencies across the province, it is not all about the use of DNA technology. The fact is any methods which we think it can be effectively used (which can work for us) to combat stock theft should be applied although it is very difficult to recover a livestock once it is stolen or lost. In short, it is very difficult to combat stock theft” (KII-1:13:13).

On the challenges pertaining to the use of DNA technology (PCR and sequencing) in combating stock theft in KZN, one of the participants had this to say, related verbatim:

“We make use DNA technology but we got a serious problem from our SAPS national head office, I would like you to write it down as it very important; we had instructions that our DNA evidence must be send for analysis within Five (05) days from the moment we receive animal DNA evidence, but now we first have to apply to our SAPS head office for financial authority for the procedures to undergo. This process takes up to Three (03) weeks for our head office to finalise this application,

in other words it is no more five (5) days that we are waiting for Twenty-Six (26) days because it is now Twenty-One (21) plus Five (05). In essence, it takes too long to send our evidence to respective laboratories” (KII-04:16:6).

“Lack in trained capacity at the SAPS STUs in the province and DNA investigations cannot be utilised in all instances of stock theft simply because it does not exist on all crime scenes” (KII-06-01-02).

4.1 Identified study themes and challenges.

4.1.1 The conceptualisation of DNA and other unrelated contributions to stock theft prevalence in Limpopo

The selected SAPS STUs and the Provincial Co-ordinator in LIM Province adopt the usage of DNA technology in the investigations of stock theft. However, some of them are unfamiliar with this concept in terms of practicality, with exceptions of the few. They do partly rely on DNA technology (PCR and sequencing) to combat this crime, yet it seems as that their stock theft related problems go far beyond this technological intervention, as it was noted that the livestock owners are often negligent in the protection of their livestock, and they are not held accountable for the protections of their own livestock. Some of the selected participants indicated that the livestock farmers do not look after their livestock, they do not even brand-mark them, and they do not count them regularly either.

For considerations, one of the most prominent motives behind stock theft relates to financial urges, either because of self-enrichment, relating to immediate gratifications, financial difficulties, and desperations, as well as for personal survival. Other motives include revenge taken by disgruntled workers on farmers, other livestock farmers and substance abuse a model for wealth and status and a desire to own livestock also contribute to this scourge. Therefore, the highlighted different motives overlap the DNA PCR and sequencing applications to combat stock theft in South Africa. Furthermore, role modelling linked to instances when perpetrators feel pressured to live up to the societal demands, or where others mostly negatively influence their decisions. Other causes to stock theft entailed to unemployment, opportunistic attitude, previous criminal history (Learnt behaviour), negative peer association, low or no formal education and a large family size. The perpetrators were often driven by the need to acquire livestock for traditional ceremonies and customs, such as *lobola* (Staff Reporter, 2023).

4.1.2 Limited knowledge on DNA technology applications for combating stock theft in Limpopo Province

This study provided clarity that the knowledge applications of DNA PCR and sequencing by the local SAPS in LIM Province is limited. The participants’ experiences displayed that the SAPS STUs investigators and the Provincial Co-ordinator are familiar with the methods to be used to employ the DNA technology and related evidence to be possible obtained from stock theft scenes. However, the practical nature of applications reflects limitations, which should be re-addressed by specific training on the use of DNA technology. Relevant stakeholders should also form part of the advised training to capacitate them in intensifying mobilisation SAPS methods on DNA PCR and

sequencing to combat stock theft in LIM Province. These stakeholders should maintain and strengthen deliberations to ensure that stock theft ‘hot spots’ are stabilised, and stock theft elements are addressed.

This should go beyond understanding the conventional methods of combating this crime, to initiate ways of integrating the contemporary technologies, such as the DNA PCR and sequencing. It was also established by this study that LIM Province does not have a designated ‘stock theft DNA technology experts’ to closely work with forensic laboratories across South Africa. Therefore, the investigation of stock theft cases by the SAPS STUs is compromised. Instances when a livestock is stolen, illegally relocated, or even slaughtered, the biological samples can be used to link a potential stock thief as suspect of this crime or be exonerated as innocent persons.

Overall, the DNA technology is proving to be a long-lasting solution to stock theft problem, as a rapid identification of livestock is provided. This technology can be used as a confirmatory forensic tool for livestock identifications and the value of this application gains momentum to be used as a tool used in most forms of stock theft combating, investigations, and prevention, irrespective of either criminal or civil nature.

5. CONCLUSION

In conclusion, the conceptualisation of DNA and other unrelated contributions to stock theft prevalence, as well as the limited knowledge on DNA technology applications for combating stock theft in Limpopo Province were found to be the themes emanating from this study. It is the view of the researchers that if the use of DNA technology [PCR and sequencing] can be managed, better understood, used, shared, transferred, and retained effectively, stock theft can be minimised in LIM Province. This technology can be positively used as key mechanisms of stock theft combating, investigations, and preventions in LIM Province. Therefore, the notable conventional and contemporary technological methods can be integrated to better respond to stock theft. This can be used to inform the present failing methods and improve future research works of the advised integrations.

Thus, the value of using DNA technology in combating stock theft was not clear to some of the selected participants, thus the application of brand-marking, earmarking and tattooing, as well as employing horse and mobile patrols (Bicycle, vehicles and Squad bike, conducting roadblocks, stop and search operations, amongst others). Furthermore, heavy emphasis on current legislative frameworks of the Stock Theft Act, 1959 and Animal Identification Act, 2002 respectively, invalidates the use of the Criminal Law (Forensic Procedures) Amendment Act, 2013. This study submits that the effective use of DNA technology (PCR and sequencing) in combating stock theft can provide positive and significant contributions of ensuring the safety and protection of livestock to improve the South African economies.

REFERENCES

Alhojailan, M.I. (2012). TA: A critical review of its process and evaluation. *West East Journal of Social Science*. 1(1), 39.

-
- Braun, V., and Clarke, V. (2014). What can “thematic analysis” offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-being*, 9(1), 1-2.
- Dhaliwal, A. (2013). *DNA extraction and purification*. Retrieved from: <https://www.labome.com/method/DNA-Extraction-and-Purification.html>.
- Dairawan, M., and Shetty, P.J. (2020). The evolution of DNA extraction methods. *American Journal of Biomedical Science and Research*, 8(1), 39-45.
- Clack, W. (2013). The extent of stock theft in South Africa. *Acta Criminologica: Southern African Journal of Criminology*, 26(2), 77-91.
- Coleman, A. (2022). R1,9 million allocated to fighting crime in rural areas. September 29, *Farmer's Weekly*. Retrieved from: <https://www.farmersweekly.co.za/agri-news/south-africa/r19-million-allocated-to-fighting-crime-in-rural-areas/>.
- Coleman, A. (2023). The true cost of agricultural crime in SA. January 15, *Farmer's Weekly*. Retrieved from: <https://www.farmersweekly.co.za/opinion/by-invitation/the-true-cost-of-agricultural-crime-in-sa/>.
- Maluleke, W. (2016). *The use of Deoxyribonucleic Acid technology in combating stock theft in South Africa*. Unpublished Doctor Technologiae. Faculty of Humanities, Department of Safety and Security Management. Soshanguve South Campus, Pretoria: Tshwane University of Technology.
- Mapholi, O. (2015). *Animal genetics - Animal Breeding and Genetics Programme*. Retrieved from: <http://www.arc.agric.za/arcapi/Pages/Animal-Geneticnpspx>.
- National Stock Theft Prevention Forum. (2016). *Manual for the prevention of stock theft*. In: The farmer's guide to the prevention and handling of stock theft. Edited by Grobler, K. National Stock Theft Prevention Forum in collaboration with Department of Agriculture, Forestry and Fisheries. Val-De-Grace, Pretoria: Agri Connect (Pty) Ltd.
- Maluleke, W. (2021a). A proposed method to effectively combat stock theft: Lessons for the South African Criminal Justice System, *European Journal of Economics, Law and Social Sciences*, 5(2), 396-417.
- Maluleke, W. (2022a). Combating stock theft with Deoxyribonucleic Acid samples and Innovative Technology in South Africa. *International Journal of Social Science Research and Review*, 5 (4), 190-213.
- Maluleke, W. (2021b). Exploring the use of conventional identification methods and Deoxyribonucleic Acid technology [And related technologies] in combating stock theft: The selected Southern African Development Community initiatives. *European Journal of Economics, Law, and Social Sciences*, 5(3), 1041-1070.
- Maluleke, W. (2020a). Inadequate knowledge and application of the use of Deoxyribonucleic Acid technology in combating stock theft in South Africa. *The International Society for the Study of Rural crime, University of New England, Centre for Rural Criminology, Rurality, Crime and Society*, Vol 1, Issue 1, 26-33
-

- Maluleke, W. (2020b). Proposing a new Deoxyribonucleic Acid technology conceptual framework in combating stock theft in South Africa: Empirical evidence. *Journal of the Social Sciences*, 48(4), 2693-2716.
- Maluleke, W. (2022b). The evidential value of Carcass traces in combating stock theft in South Africa. Special Issue: *e-Bangi*, 19 (3), 212-223.
- Maluleke, W. (2018). The integration of conventional and technological methods in combating stock theft by selected stakeholders in the KwaZulu-Natal province. *Acta Criminologica: Southern African Journal of Criminology*, Special Edition: Rural crime, 31(4), 123-146.
- Maluleke, W. (2020c). The value of Deoxyribonucleic Acid technology in combating stock theft in the KwaZulu-Natal Province: Lessons for South African Police Service Stock Theft Units. *Journal of the Social Sciences*, 48(4), 2858-2875.
- Maluleke, W. (2022c). Using evidence of empirical research to understand the nature and extent of stock theft: Lessons from Limpopo Province of South Africa. *International Journal of Social Science Research and Review*, 5 (4), 155-169.
- Maluleke, W., and Mofokeng, JT. (2018). Challenges facing the implementation of deoxyribonucleic acid technology in combating stock theft in KwaZulu-Natal Province, South Africa. *International Journal of Social Sciences and Humanity Studies*, 10 (1), 311- 345.
- Maluleke, W., Mokwena, RJ., and Olofinbiyi, SA. (2019). An evaluative study on criminalistics: Stock theft scenes. *International Journal of Business and Management Studies*. 11(1), 101-138.
- Manganyi, FM., Maluleke, W., and Shandu, SN. (2018). An examination of co-operative strategies towards policing stock theft in the KwaZulu-Natal Province. *Acta Criminologica: Southern African Journal of Criminology*, Special Edition: Rural crime, 31(4), 97-122.
- Maluleke, W, Tshabalala, NP., and Tolla, AD. (2021). Perspectives on stock theft prevention in the selected provinces of South Africa: Failures and successes. *International Journal of Criminology and Sociology*, 10(1), 1029-1038.
- Pakistan, A. (2014). General Bheki Cele tackles stock theft challenges in Queenstown. September 4, *South African Official News*. Retrieved from: [http://www.gov.za/general-bheki-cele-tackles-stock-theft-challenges- ...](http://www.gov.za/general-bheki-cele-tackles-stock-theft-challenges-...)
- South Africa. (2014). A New DNA Act - The Criminal Law (Forensic Procedures) Amendment Act [No. 37 of 2013] (Hereafter referred to as the 'DNA Act') was finally passed into law on the 27 January 2014. *Government Gazette*, Vol. 583, No. 52. Cape Town, 27 January, No. 37268. Retrieved from: <http://dnaproject.co.za/legislation-homepage/legislation/a-new-dna-act/>.
- South Africa. (2002). Animal Identification Act (No. 6 of 2002). *Government Gazette*, Vol. 769 No. 23479, 3 June. Retrieved from: http://www.saflii.org/za/legis/num_act/aia2002189.pdf.
- South Africa. 2015. *Application for registration of identification mark*. Retrieved from: [https://www.westerncape.gov.za/sites/www.westerncape.gov.za ...](https://www.westerncape.gov.za/sites/www.westerncape.gov.za...)
- South Africa. (2008). *Identification of animals*. Retrieved from: [https://www.westerncape.gov.za/assets/departments/ ...](https://www.westerncape.gov.za/assets/departments/)

South African Police Service. (2011). Stock Theft Act (No. 57 of 1957). *Juta Law*, 46 (34535), September 30, 1-2.

South African Police Service. (2019-2023). Fourth Quarter Crime Statistics 2022/2023. Retrieved from: <https://www.saps.gov.za/services/crimestats.php>.

Staff Reporter. 2023. Study reveals the motives behind stock theft. March 20, *Farmer's Weekly*. Retrieved from: <https://www.farmersweekly.co.za/opinion/by-invitation/study-reveals-the-motives-behind-stock-theft/>.

Khan Academy [Online]. (2022). Introduction to biotechnology. Retrieved from: [https://www.khanacademy.org/science/ap-biology/gene-expression-and-regulation ...](https://www.khanacademy.org/science/ap-biology/gene-expression-and-regulation...)

SSIRC 2023-014**PERCEPTIONS OF ORGANISATIONAL JUSTICE AND JOB SATISFACTION OF ADMINISTRATIVE STAFF AT A UNIVERSITY OF TECHNOLOGY IN SOUTH AFRICA****P.A. Joubert**

Sol Plaatje University, South Africa

N.S. Cana

Vaal University of Technology, South Africa

ABSTRACT

All organisations, including higher education institutions, need to maintain or improve the sustainable environment of their staff (employees) throughout their working experience. To understand and manage the working experience of employees, organisations need to evaluate the perceptions of fairness (organisational justice) of their employees and how they affect their level of job satisfaction (sustainable employability) in the workplace. A literature review indicates a dearth of research, especially with a focus on administrative staff at a university of technology. A quantitative approach was undertaken to gain an understanding of the perceptions of organisational justice and their dimensions, job satisfaction and the relationship between the constructs. A sample of 200 employees participated in the study through a structured questionnaire. Data were analysed with structural equation modelling. A statistically significant relationship between all dimensions of organisational justice, namely distributive, procedural, and interactional justice, exists with job satisfaction. All dimensions also reported a direct influence on job satisfaction as dependent/outcome variable. Results indicate acceptable reliability and validity. Since perceptions of organisational justice affect job satisfaction both directly and indirectly, it is recommended that administrative staff be inducted into all the components of organisational justice. The contextual factors that influence both organisational justice and job satisfaction should be considered when policies related to administrative staff are developed. Concerning future studies, it is recommended that a larger sample be used in combination with a qualitative approach to obtain a deeper understanding of the perceptions of respondents. The scope of this study could be extended to other universities of technology in South Africa to obtain a more comprehensive understanding of perceptions of organisational justice and their effect on job satisfaction.

KEYWORDS: organisational justice, distributive justice, procedural justice, interactional justice, job satisfaction.

1. INTRODUCTION

Organisational justice (OJ) focuses on employees and their evaluations of the three dimensions of OJ. Distributive justice (DJ) refers to the evaluation of the outcomes employees receive from the organisation; procedural justice (PJ) involves the evaluation of the formal policies or procedures by

which outcomes are allocated, and interactional justice (IJ) relates to evaluations of the interpersonal treatment employees receive from supervisors (Saunders & Thornhill 2003). Organisational justice can be perceived as employees' observations of DJ, PJ and IJ (Ikramullah, Shah, Hassan, Zaman & Khan 2011), and perceptions of OJ depend on the employee's view of his/her job. Furthermore, OJ should be seen as a system used to assess whether an employee has performed his or her overall work (Sedarmayanti 2015). Consequently, the institution should have procedures and processes in place, which are reliable and free from deficiencies. For example, if there are any deficiencies in the OJ processes, then this could influence the level of employee job satisfaction (JS). However, when employees see and understand the fairness in the system, they could be motivated because their efforts do not go unnoticed, which may have a positive influence on JS.

One of the early definitions by Locke (1976) describes JS as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience. Sutrisno (2014) confirms that JS is an employee's attitude towards work-related situations, teamwork between employees and incentives received. Employees have different needs to fulfil and once these needs are satisfied, it affects their level of JS. According to McShane and VonGlinow (2010), employees who are content with their work will be extra creative and dedicated to their organisation, as organisations with more satisfied employees tend to be more efficient than organisations with fewer satisfied employees.

This study attempted to answer the following questions:

- How can the influence of perceptions of OJ be measured and which issues are involved?
- How can job satisfaction be measured and which aspects are relevant to administrative staff at a University of Technology (UoT)?
- Is there a significant association between perceptions of OJ on JS among administrative staff at a UoT?
- What are the possible implications from the findings of this investigation for future OJ for administrative staff and their perceptions of JS at UoT?

2. THEORETICAL FRAMEWORK

The study is based on the Equity Theory which suggests that employees feel most comfortable when they are getting exactly what they deserve from their input, no more or no less. Employees develop beliefs that they will be recognised for their hard work. However, when equity is not perceived as fair, there is a desire, whether conscious or subconscious, to take remedial action to make the situation more equitable (Emberson 2002). The result of inequity is tension; if an individual experiences a deficit, it results in anger, and if he or she receives more than others, a feeling of guilt develops (Al-Zawahreh & Al-Madi 2012). For example, in a higher education context, the results of a process are pertinent to various outcomes such as service quality, programme quality, placement, image of the institution, competent graduates, employability rate, quality research outcomes, quality academic materials, industrial link and international recognition (Martono, Nurkhin, Pramusinto, Afsari & Arham 2020).

3. LITERATURE REVIEW

3.1 Distributive justice

Luo (2007) defines DJ as the extent to which inter-party sharing of the rewards from cooperation is fair in view of each party's contribution, commitment, and assumption of responsibility. Krishnan, Loon, Ahmad, and Yunus (2018) describe DJ as how people perceive the distribution of rewards among employees in the organisation. When the input (effort) and output (reward) is equal, employees view distributive processes in the workplace as fair, but, if the input is more than the output, it is seen or interpreted as unfair.

3.2 Procedural justice

Moorman (1991:845) defines procedural fairness as the fairness of the procedures used in determining employee outcomes. The process which leads to fair outcomes or rewards in the organisation is referred to as PJ (Warokka, Gallato & Moorthy 2012). The perception of fairness is related to employees' feelings of justice about policies, processes, and methods (Lim & Loosmore 2017). Procedural justice rests on four pillars, namely perceptions of fairness, employee voice, transparency, and impartial decisions (Kunard & Moe 2015).

3.3 Interactional justice

Interactional justice is defined as the interpersonal treatment received at the hands of decision-makers with a focus on social sensitivity and informational justification (Hefferman & Dundon 2016). When employees are treated with respect and sensitivity and the rationale for a particular decision is explained clearly, IJ is perceived as being fostered (Hefferman & Dundon 2016).

3.4 Job satisfaction

Employee levels of JS can range from extreme satisfaction to extreme dissatisfaction (Pratama, Suwarni & Handayani 2022). Job satisfaction is the main reason for employees to stay or leave the institution as the cause of turnover intention is related to employee JS. To reduce the occurrence of turnover intention in an organisation, it must at least increase the level of employee JS. Job satisfaction is a complex variable that includes various behavioural, affective, and environmental factors related to one's job or job experiences (Thakur, Ansari & Bidkar 2020).

3.5 Relationship between organisational justice and job satisfaction

Ajala (2017) found a significant correlation between OJ and JS. This is confirmed by Mahboob and Khan (2017) and Al-Douri (2020) who established a positive correlation between OJ and JS. Further studies confirmed the influence of perceptions of DJ on JS (Mansour & Ismail 2019), the influence of perceptions of PJ on JS (Akbolat, Isik, Yilmaz & Akca 2015) and the influence of perceptions of IJ on JS (Akbolat et al. 2015). The current study aimed to confirm or reject these relationships.

4. RESEARCH METHODOLOGY

Explanatory research was conducted, which involves a quantitative study and hypothesis testing. The core purpose of explanatory research is to categorise any connecting links between the factors or variables that relate to the research problem. For this study, the target population was restricted to administrative staff at a UoT. The population included both female and male staff. The total number of administrative staff was 200. The chosen sample size was feasible and large enough to provide a good representation of administrative employees at a UoT.

Data were collected via a structured questionnaire using items from previous valid and reliable questionnaires on OJ and JS. As this questionnaire was tested in a new context, its validity and reliability were determined before statistical analyses were done. The value of a structured questionnaire is that it tends to be more reliable because it is completed anonymously. The questionnaires were distributed and collected by hand. The questionnaire comprised five sections (A-biographic information, B- employee perceptions towards distributive justice, C- employee perceptions towards procedural justice, D- employee perceptions towards interactional justice, E- job satisfaction). A five-point Likert scale ranging from 1=strongly disagree to 5=strongly agree was utilised.

5. RESULTS AND DISCUSSION

Table 1: Demographic attributes

| | |
|---|-------|
| Gender | |
| Female | 62% |
| Male | 38% |
| Age in years | |
| 18-30 | 21.5% |
| 31-40 | 40.5% |
| 41-50 | 22% |
| 51-60 | 12.5% |
| Over 60 | 3.5% |
| Ethnicity | |
| Black/African | 92.5% |
| White | 7% |
| Coloured | 0.5% |
| Qualification types of academics | |
| Master/doctorate | 5.5% |
| Postgraduate diploma/Honours | 30.5% |
| Degree | 11.5% |
| Diploma | 37.5% |
| Other unspecified qualifications | 7% |
| Years of experience | |
| More than 12 years | 64.9% |
| 8-12 years | 20.8% |
| 3-7 years | 10.9% |
| Less than 3 years | 3.5% |

Most respondents have working experience of between 6-10 years (33%; n=66), followed by those with 0-5 years (32.5%; n=65), 11-15 years (20.5%; n=41), 16-20 years (8.5%; n=17) and, finally, 21+ years (4.5%; n=9). An analysis of the demographics of the sample confirms that the respondents can have a perception of OJ and JS in their work environment.

6.THE STANDARDISED VALUES OF THE CONSTRUCTS INVOLVED IN ORGANISATIONAL JUSTICE AND JOB SATISFACTION

The standardised direct effects of OJ are briefly discussed using the data in Table 2.

Table 2: The standardised values of the constructs involved in the organisational justice and job satisfaction model.

| Factors | Organisational justice (F2.0) |
|-----------------------|-------------------------------|
| Job satisfaction | 0.89 |
| Interpersonal justice | 0.70 |
| Procedural justice | 0.81 |
| Distributive justice | 0.62 |

6.1 Standardised direct effects

6.1.1 Effect of organisational justice on job satisfaction

The standardised direct (unmediated) effect of OJ on JS was 0.89, that is, due to the direct (unmediated) effect of OJ on JS. When F2.0 increases by one standard deviation, JS increases to 0.89 standard deviations. Thus, organisational justice has a direct causal effect on JS.

6.1.2 Organisational justice on interpersonal justice

The standardised direct (unmediated) effect of OJ on FD1.2 (IPJ) was 0.70, that is, due to the direct (unmediated) effect of OJ on IPJ. When OJ increases by one standard deviation, IPJ increases to 0.70 standard deviations.

6.1.3 Organisational justice on informational justice

The standardised direct (unmediated) effect of OJ on FD1.1 (IFJ) is 0.82, that is, due to the direct (unmediated) effect of OJ on F1.1 (IFJ). When OJ increases by one standard deviation, IFJ increases by 0.82 standard deviations.

6.1.4 Organisational justice on procedural justice

The standardised direct (unmediated) effect of OJ on PJ is 0.81, that is, due to the direct (unmediated) effect of OJ on PJ. When OJ increases by one standard deviation, PJ increases by 0.81 standard deviations.

6.1.5 Organisational justice on distributive justice

The standardised direct (unmediated) effect of OJ on DJ is 0.62, that is, due to the direct (unmediated) effect of OJ on DJ. When OJ increases by one standard deviation, DJ increases by

0.62 standard deviations. Therefore, organisational justice has a direct effect on each one of its four underlying first-order factors, as well as on JS.

7. MULTIPLE REGRESSION TO ANALYSE JOB SATISFACTION AS OUTCOME VARIABLE

The four independent variables (predictors), namely FB1.0, FC1.0, FD1.1 and FD1.2, were first tested for linearity by conducting a scatterplot matrix, which indicated linearity between all pairs of independent variables. Secondly, tests were conducted for multicollinearity using the variance inflation factor (VIF) and the tolerance statistic. None of the four independent variables had VIF values larger than one, and all tolerance statistics were less than 0.2 (Field 2018). The Durban-Watson value was also <2 .0 indicating that the residuals were uncorrelated. No heteroscedacity was present between the predictor variables. Hence, all assumptions for a multiple regression were met.

Table 3: ANOVA of multiple regressions with constant included.

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 92.352 | 4 | 23.088 | 66.901 | .000 ^b |
| | Residual | 67.295 | 195 | .345 | | |
| | Total | 159.647 | 199 | | | |

- a. Dependent variable: Job satisfaction
- b. Predictors: (Constant), Interpersonal justice, Distributive justice, Procedural justice

The null hypothesis of all regression coefficients being zero cannot be accepted (it is rejected) as the p-value of 0.000 < 0.0005 hence the assumption that at least one of the regression coefficients (α or β) is significantly different from zero. The values of the various coefficients are provided in Table 4.

Table 4: Coefficients involved in the multiple regression of JS as outcome.

| Model | | Unstandardised coefficients | | Standardised coefficients | T | Sig. |
|-------|-----------------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .028 | .239 | | .116 | .908 |
| | Distributive justice | .209 | .060 | .188 | 3.499 | .001 |
| | Procedural justice | .267 | .066 | .254 | 4.036 | .000 |
| | Interpersonal justice | .258 | .060 | .253 | 4.302 | .000 |

- a. Dependent variable: E-Job satisfaction

The p-values for DJ, PJ and IJ are all small ($p < 0.05$), hence the null hypothesis can be rejected in each case. However, the p-value of the constant value of 0.028 is 0.908, which is > 0.05 . Hence, the

null hypothesis that the *constant* in the model is zero cannot be rejected, which implies it should be excluded from the model. The appropriate values are presented in Table 5.

Table 5: Coefficients involved in the multiple regression of JS as outcome without the constant

| Model | Unstandardised coefficients | | Standardised coefficients | t | Sig. | |
|-------|--|-------|---------------------------|-------|-------|-------|
| | B | SE | Beta | | | |
| 1 | DJ | 0.255 | 0.059 | 0.244 | 4.312 | 0.000 |
| | PJ | 0.256 | 0.067 | 0.256 | 3.796 | 0.000 |
| | IJ | 0.176 | 0.067 | 0.181 | 2.616 | 0.000 |
| a. | Dependent variable: Perceptions of job satisfaction | | | | | |
| b. | Linear regression through the origin | | | | | |

All four of the unstandardised (b) coefficients have significant p-values, hence all four are significantly different from zero.

8. RELIABILITY AND VALIDITY OF MEASUREMENT CONSTRUCT

Reliability refers to the instrument’s ability to measure the qualities of a variable or a construct consistently (LoBiondo-Wood & Haber 2014). In this study, the Cronbach alpha coefficient, which varies in value from zero to one, was used to describe the internal reliability of the items in a factor. The resultant coefficients indicated that the scale items performed adequately in capturing the elements of the perceptions of employees towards PJ, DJ, IJ and JS. Cronbach alpha values for the individual scales ranged from 0.741 to 0.917. The results of the study are summarised in Table 6.

Table 6: Reliability statistics of the questionnaire: Sections B, C, D and E

| Sections of questionnaire | No of items in the scale | Cronbach’s alpha |
|----------------------------------|--------------------------|------------------|
| Section B: Distributive justice | 5 | .741 |
| Section C: Procedural justice | 6 | .866 |
| Section D: Interactional justice | 9 | .917 |
| Section E: Job satisfaction | 5 | .851 |

The following validity concerns were identified:

Distributive justice discriminant validity: the square root of the AVE for FB1.0 (0.619) is less than the absolute value of the correlations with another factor. The AVE for FB1.0 (0.383) is less than the MSV (0.416). With regards to converging validity, the AVE for FB1.0 (0.383) is less than 0.50.

The exploratory factor analysis indicated that the construct of DJ had five items related to it but that the items did not all have factor loadings high enough (>0.50) to be able to show converging validity. The other factors demonstrated both converging and diverging validity.

All the items related to DJ (B1-B6), the items related to PJ (C1-C6) and the items which were used for interactional justice (D1-D11) were submitted to a factor analytic procedure, namely PAF with Varimax rotation. The KMO value of 0.921 with a significant Bartlett's sphericity value ($p=0.000$) suggested that the 22 items could be grouped into a smaller number of factors. Four first-order factors resulted, which explained 66.76% of the variance present. These four factors were identical to those discussed above, except that item B5 was grouped with the C items. When checking the reliability of these first-order factors, the analysis suggested that item B5 be omitted. A second-order factor analysis was then performed on the four first-order factors to find a more parsimonious solution than the four clusters. The KMO of 0.764 and Bartlett's sphericity of $p=0.000$ indicated that a more frugal solution was possible. One second-order factor resulted, which explained 63.75% of the variance present. It was named OJ and contained 21 items, with a Cronbach's alpha reliability of 0.935.

9. SYNTHESIS OF FINDINGS

A structured questionnaire was used to investigate the relationships between OJ and JS among the administrative staff of a UoT in South Africa. Organisational justice was postulated as a multi-dimensional construct composed of DJ (Section B), PJ (Section C) and IJ (Section D). These three latent variables (DJ, PJ and IJ) each had several manifest variables associated with them, and an EFA (in the form of a PAF with Varimax rotation) revealed that OJ was composed of the three postulated underlying constructs of DJ, PJ and IJ. However, IJ was composed of two first-order factors, namely IFJ (FD1.1) and IPJ (FD1.2). All four of the constructs involved in OJ had diverging validity and on removal of certain items had converging validity. With the measurement part of the OJ construct found to be in order, a CFA model was drawn in AMOS 26 to test this hypothetical structure of OJ, which consisted of four constructs in a statistical way. The various fit indices indicated that the model was in order.

The structural part of the model was then investigated by first adding OJ to the model, with regression pathways towards DJ, PJ, IFJ (FD1.1) and IPJ (FD1.2). Secondly, JS and its five manifest variables were added to the model. A pathway from OJ to JS was added to the model. All the regression pathways were direct and statistically significant. Hence, one could conclude that OJ had direct influences on DJ, PJ, IJ and JS.

The study did not investigate the possibility of moderation effects and both mediation and moderation are likely involved. It is recommended that further research be done regarding this possible relationship.

Multiple regression was also used to investigate the influence of OJ on JS. The three constructs involved in OJ (DJ, PJ, and IJ) acted as predictors and JS as an outcome. The analysis indicated that all three constructs involved in OJ had a significant influence on JS. However, when using standardised beta values, perceptions of IJ were found to be the best predictor of JS, followed by PJ, DJ and IJ. A bivariate correlation confirmed that perceptions of IJ related to feelings of being treated with dignity and respect and self-esteem had the strongest correlation with JS. The strongest relationship with JS was when all four predictors of OJ were included in the model.

Non-parametric procedures were used to investigate possible associations between the four constructs in OJ and the one in JS, as dependent variables, versus the various biographic groups as independent variables. Respondents from the African race groups agreed statistically significantly more strongly with the IJ factor than did the other race groups. Participants with higher educational qualifications agreed significantly more strongly with the JS factor than did respondents with lower qualifications. With respect to years of experience, respondents with fewer years of experience (0-10 years) disagreed significantly more strongly with both IJ and JS than did the group with more experience (11+years). The significant difference in the interpersonal factor could be important, as it refers to ensuring that people are treated with the necessary dignity and respect, as well as attending to their self-esteem needs. The least experienced group seems to perceive an unfairness when it comes to IJ and JS. Statistically significant differences were also found between the home language groups regarding IJ and JS. The differences between these dependent variables and the home language groups were largest on JS, followed by IJ. The SeSotho home language group, predominant on the main and closest satellite campuses, agreed significantly more strongly with these factors than did the Nguni home language group which was leading on the Ekurhuleni campus. This difference could be due to ethnic differences between these two SeSotho and Nguni home language groups. In the categories of employment groups, the respondents with fixed-term appointments disagreed significantly more strongly with DJ than did the permanent employees. It seems logical that fixed-term employees, who have fewer benefits than permanent employees, should agree less strongly with how justice is distributed. With respect to the IJ factor, the fixed-term employees also disagreed significantly more strongly than did permanent employees. Again, it appears logical that fixed-term employees will agree less strongly with interpersonal justice being fair, as perceptions will be that permanent employees are treated with a greater degree of fairness than they are.

10. RECOMMENDATIONS

Perceptions of OJ effects JS both directly and indirectly. When OJ acts as a predictor variable and OJ as an outcome variable, then the components of OJ have both a direct and indirect influence via mediators of OJ. It is thus recommended that attention be given to all the components of OJ, as improving perceptions about IJ, PJ and DJ will positively influence perceptions of the JS of the administrative staff. In the training and development of administrative staff, attention should be given to issues of OJ so that employees at all appointment levels become familiar with the constructs utilised in OJ. An open discussion, where employees are allowed to make use of opportunities to participate freely in discussions, as well as to reflect on their thinking should be promoted and facilitated in all training and development opportunities.

The contextual factors that influence both OJ and JS should also be considered when policies related to administrative staff are developed. Among the most important are cultural differences, geographical locations, and levels of educational qualifications. Managers often feel threatened by well-qualified employees who voice their opinions and often tend to ignore such opinions. Any decisions made should always be in the best interests of the institution and not on bureaucratic policies formulated at higher management levels. The role of OJ and its impact on JS is important and should not be used to ensure only compliance of employees to formulated policies at higher

levels of the institutional hierarchy. An open dialogue about OJ and its components and their effect on JS, when training and developing administrative staff, is recommended, as it could prevent polarisation of views and foster commitment to challenge predominant ways of thinking about things. Clear policies, where employees feel free to voice their concerns regarding perceptions of unfair treatment by managers should not only be present but should also be implemented without fear of possible victimisation of any sort.

11. STUDY LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

This study contributes significantly to academia and practice but limited in some areas. The study was limited to one UoT in SA, and the results cannot be generalised to all higher education institutions in SA and elsewhere in the world. Consideration must be given to the limited sample size of 200 respondents in this study, and a larger sample might have resulted in different findings. In this study, only one research approach (quantitative) was utilised. In combination with a qualitative approach, a deeper understanding of the perceptions of respondents might have been obtained.

The findings of this study can be further advanced by investigating the relationship between OJ and other elements of JS not covered in this study. Further research can be conducted using both mediation and moderation to investigate the associations between OJ and JS. The scope of this study could be extended to other universities of technology in South Africa in order to obtain a more comprehensive understanding of perceptions of OJ and their effects on JS. It may also be of importance to conduct a qualitative study relating to the perceptions of OJ and JS, which may allow the findings to be openly discussed with perceptions exposed to multiple views.

12. CONCLUDING REMARKS

The purpose of this study was to determine the perceptions of the effect of DJ, PJ and IJ on JS among administrative staff members at a UoT in SA. A direct effect was present between OJ and JS. Indirect and mediating effects were also found to exist between the components of OJ and JS.

This study serves to provide the management of a UoT with possible answers to issues related to perceptions of the effect of OJ on JS. Management could gain a better in-depth understanding of the perception of OJ and JS among administrative staff. The awareness achieved in the study intends to contribute to supplementary recommended processes to improve OJ and JS concerns. This should support the UoT to meet the continuously increasing service delivery demand. Improved perceptions of OJ and JS could enhance the motivation levels of administrative staff. Ultimately, a win-win situation could be created whereby the administrative staff are motivated with satisfactory levels of JS and the management of the UoT.

REFERENCES

Ajala, E.M. (2017). A relationship study between organisational justice and job satisfaction among industrial employees in Ogun State, Nigeria. *African Journal for the Psychological Studies of Social Issues*, 2(2):26-42.

-
- Akbolat, M., Isik, O., Yilmaz, A. and Akca, N. (2015). The effect of organizational justice perception on job satisfaction of health employees. *International Journal of Recent Advances in Organizational Behaviour and Decision Sciences: An Online International Research Journal*, 1(2):360
- Al-Douri, Z. (2020). Organizational justice and its impact on job satisfaction: Evidence from transportation industry. *Management Science Letters*, 10, 351-360.
- Al-Zawahreh, A. and Al-Madi, F. (2012). The utility of equity theory in enhancing organizational effectiveness. *European Journal of Economics, Finance and Administrative Sciences*, 46, 158-170.
- Emberson, M. (2002). *The equity theory of motivation: An ethnographic case study of a voluntary sector organisation*. University of Kent: Canterbury.
- Hefferman, M. and Dundon, T. (2016). Cross-level effect of high-performance work systems and employee well-being: the mediating effect of organizational justice. *Human Resource Journal*, 10, 1-21.
- Ikramullah, M., Shah, B., Hassan, F. S., Zaman, T. and Khan, H. (2011). Fairness of performance appraisal system: An empirical study of civil servants in district Dera Ismail Khan, Pakistan. *International Journal of Business and Social Science*, 2(21):92-100.
- Krishnan, R., Loon, K. W., Ahmad, N.A.F. and Yunus, N.A.S. (2018). Examining the relationship between organizational justice and job performance. *International Journal of Academic Research in Business & Social Science*, 8(3):466-477.
- Kunard, L. and Moe, C. (2015). *Procedural justice for law enforcement agencies: Organizational change through decision making and policy*. Chicago: Center for Public Safety and Justice.
- Lim, B.T. and Loosemore, M. (2017). The effect of inter-organizational justice perceptions on organizational citizenship behaviors in construction projects. *International Journal of Project Management*, 35(2):95-106.
- Lobiondo-Wood, G. and Haber, J. (2014). *Methods and critical appraisal for evidence-based practice*. 8th ed. Elsevier Mosby.
- Locke, E. (1976). The nature and causes of job satisfaction. In *Handbook of Industrial and Organizational Psychology*, edited by M.D. Dunnette, Chicago: Rand McNally.
- Luo, Y. (2007). The independent and interactive roles of procedural, distributive, and interactional justice in strategic alliances. *Academy of Management Journal*, 50(3):644-604.
- Mahboob, F. and Khan, B. (2017). Organisational justice and its impact on job satisfaction in public sector universities of Peshawar. *Arabian Journal of Business Management Review*, 7(5):1-7.
- Mansour, A.A.H. and Ismail, H.M. (2019). Organizational justice to achieve job satisfaction for social workers in youth care. *Egyptian Journal of Social Work*, 8(1):41-64.
- Martono, M. S., Nurkhin, A., Pramusinto, H., Afsari, N. and Arham, A. F. (2020). The relationship of good university governance and student satisfaction. *International Journal of Higher Education*, 9(1):1-10.
-

Moorman, R.H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76(6):845-855.

Meshane, S.L. and Von Glinow, M.A. (2010). *Organizational behaviour*. 5th ed. Boston: McGraw-Hill Irwin.

Pratama, N.E., Suwarni, E. and Handayani, A.M. (2022). The effect of job satisfaction and organizational commitment on turnover intention with person organization fit as moderator variable. *Aptisi Transactions on Management*, 6(1):74-81.

Saunders, M.N.K. and Thornhill, A. (2003). Organisational justice, trust and the management of change: An exploration. *Personnel Review*, 32, 360-375.

Sedarmayanti, S. (2015). *Human resource management, bureaucratic reform and civil servant management*. Bandung: PT. RefikaAditama.

Sutrisno, E. (2014). *Human resource management*. Jakarta: Kencana.

Thakur, M.B., Ansari, S. and Bidkar, P. (2020). Exploring the relationship between work environment and job satisfaction. *Journal of Human Resource Management*, 68(1):1-20.

Warokka, A., Gallato, C. and Moorthy, T. (2012). Organizational justice on performance appraisal system and work performance: Evidence from an emerging market. *Journal of Human Resource Management Research*, 1-18.

SSIRC 2023-015**AFRICA'S SOCIAL INTEGRATION AND GLOBAL RELEVANCE: SOME OBSTACLES TO SURMOUNT****N.S. Mathonsi**

University of Limpopo, South Africa

S.L. Sithole

University of Limpopo, South Africa

ABSTRACT

Africa's social integration and global relevance will remain a pipedream for as long as the sleeping giant (the African continent) evades decisive confrontation of key perceived obstacles towards cooperation at a local level. Whereas integration and cooperation are crucial to global competitiveness and relevance, challenges associated with under-development such as ethnic rivalry, xenophobia, ritual murder, and corruption are major obstacles that should be addressed adequately. Such challenges are attributable to the disregard of the Ubuntu value system. This article highlights the strife and tension experienced by the Vhembe District Municipality (Limpopo Province) in delivering services to Malamulele residents. Lack of co-operation and mistrust between the two main language groups (VhaVenda and VaTsonga) in the Thulamela Municipality escalated and deteriorated to an extent that the Municipal Demarcation Board eventually resolved to allocate a new municipality to Malamulele residents. The thesis of this article is that 'charity begins at home', and that cooperation at local level is the *sine qua non* of (Africa's) integration as well as global competitiveness and relevance. This article, therefore, intends to share the empirical findings of a study on the dissatisfaction of Malamulele residents with service delivery in Thulamela Local Municipality. A qualitative research approach was followed, and a case study design was selected. Social Exclusion and the concept of Ubuntu were adopted as a theoretical framework that anchored the study. Granted that affected parties in the Malamulele community are identifiable, a purposive sample of participants was constituted. The unstructured interview method was utilised to collect data. Thematic data analysis was adopted. One of the main outcomes of the study was on the relationship between the two language groups. Recommendations to deal with future areas of conflict and dissatisfaction in this regard are proffered. These form basic building blocks for possible social integration in Africa.

KEYWORDS: Regional Integration, Social cohesion, Ubuntu, Africa, Ethnic Rivalry, inequality, Vhembe District

1. INTRODUCTION AND BACKGROUND

Integration occurs at various levels of a society namely, 'local, national, regional, and international levels', and it coalesces among four major dimensions which are "social, economic, political, and cultural contexts", and the failure or success thereof is dependent on the interaction of salient enabling and inhibiting factors (Chingono & Nakana 2009:397; Zajontz, 2013:2). Cruz-Saco (2008); Manda, Knowles, Connors, & Mwombela (2014) as well as Eppler, Anders, & Tuntschew (2016)

attest to this. While these may not be the only cardinal points of integration, they are the common ones in various societies. Among these four stated dimensions of integration, the thrust of this article is on social integration.

It is important, right at the outset to establish some common understanding of what social integration is in relation to the purpose of this article. Cruz-Saco (2008) posits that social integration can be understood as the process of creating unity, inclusion, and participation at different levels of a society within the diversity of group/s and attributes so that everyone is free to be the person they want to be. Interestingly, attributes referred to in this instance include socio-economic class, age, gender, political ideas, ethnicity and culture, religion, citizenship, and geographical location, among other attributes. These form the irreducible core of social integration. In line with the definition provided, it is evident that social integration has a way of drawing together other three dimensions of integration into one.

Social integration is the *raison d'être* of social cohesion, a culture of acceptance, and relevance of integration units (Cruz-Saco, 2008). Social integration and social cohesion can occur at all levels from micro-levels such as family units to macro-levels of continents (Cloete & Kotze, 2009). As cooperation occurs among various units of integration such as continents, regions, countries, local governments, as well as family units, it begins to strengthen social integration and relevance of units of integration.

In every social interaction, challenges are inevitable. As units of social integration interact, their differences begin to surface, and these may undermine exchanges among units which ultimately compromise the purpose for which integration aims to achieve. For example, the issue of xenophobic attacks that occur in South Africa from time to time threaten the regional integration of South Africa as a pivotal player and as part of the Southern African Development Community (SADC) member state and the African Union (AU) (Crush & Pendleton, 2004; Chingono & Nakana, 2009; Mulaudzi, 2009; Solomon & Kosaka, 2014; Kinge, 2016). With specific reference to the South African local government, perceived ethnic and language differences between the XiTsonga and TshiVenda-speaking people are signs of the obstacles (among others) that need to be addressed before the social cohesion and nation-building that former President Jacob Zuma spoke about during the 2017 State of the Nation's Address (SNA) can be fully realised. The same message of nation-building and social cohesion was emphasised by South African News (SA News, 2012). Perceived ethnic rivalries appear to be a common feature in most African countries. As such, until such ethnic acrimonies are addressed at local level, the regional and the global community might as well forget about achieving sustainable and effective integration and global relevance. As the old maxim goes, *charity begins at home*. Local ethnic animosity must first fall.

This article mainly discusses one theme on the findings of the major study titled *Dissatisfaction of Malamulele residents with Service Delivery in Malamulele Area, Limpopo Province: A Sociological Investigation*. Among other key objectives of the study was to assess the relationship between the VhaVenda and the VaTsonga people in Thulamela Local Municipality, under Vhembe District, Limpopo Province in South Africa.

2. PROBLEM STATEMENT

In the post-colonial era, African countries continue to demonstrate poor integration internally among various language groups. History is replete with the ethnic cleansing and massacre in areas such as Burundi, Rwanda, and decimation of the Khoi San communities in Botswana, among other examples. Closer to South Africa, the massacre of the Ndebeles during what is known as the *Gukurahundi* force that claimed almost 30 000 lives is still vivid in memories of Zimbabweans and the country's history books (Sachikonye, 2011; Ngwenya 2014).

It is also important to acknowledge that ethnic rivalries are not exclusive and unique to Africa. The world has seen the massacre of six '(6) million Jews by the Nazis around 1945 (International Holocaust Remembrance Alliance, 2015). This was followed by other ethnic cleansing massacres in Bosnia-Herzegovina in 1992 to 1995 (Melander, 2007), and many other such cleansing incidents (Blum, Stanton, Sagi, & Ritcher, 2007). Whilst these ethnic conflicts occur almost daily, the focus of this article is that if Africa still finds it difficult to outgrow these obviously primitive and backward tendencies, regional integration will remain a tantalising mirage.

With the advent of democracy in most African countries, some countries hoped to achieve immediate integration at the continental level, however, they are failing to do so at local level. This appears to be ironical and a contradiction. The so-called *regional integration* as yearned for in Africa has become a form of avoiding real challenges of poor integration at local level (Qobo, 2007). South Africa is not an exception to this practice. Cloete and Kotze (2009) posit that one of the principal challenges of the post-apartheid South African government is to address issues of racial, ethnic, and class polarisation within the society and create a united nation within the unitary state. Incidents of ethnic rivalry persist after twenty-five years into democracy at local government level. This animosity, among other reasons, contributed to the violent protests that occurred in the Thulamela Municipality which left the government with no option, but to install a new municipality (Collins Chabane Local Municipality) in Malamulele. The tension between the two groups was cited as a contributory factor for the violent protests that occurred in the area. The responses that were received from the interviews conducted emphasise that there is no integration between the two groups.

3. THEORETICAL FRAMEWORK

This article is anchored by the Social Exclusion Theory (SET). The theory is commonly used as a lens that is utilised to view and understand societal challenges where groups of people do not have equal access to the benefits in a society. The theory best presents a picture wherein some groups in a society are unequal, other groups being at an advantage to control societal systems to cater for their exclusive interests to the detriment of other people in a society (Bhalla & Lapeyre, 1997). According to Silver (1994), De Haan (1999) as well as Khan (2012), social exclusion first started as a concept in Europe; France to be exact, where there had tended to be emphasis on an operation to redress issues such as poverty, social rapture, spatial exclusion as well as institutional failure on social cohesion, and the redress operation was followed by a policy focus to assist people who were residing in areas considered as deprived and depraved. The concept gained popularity in other countries through the European Union while endeavouring to fight the effects of social exclusion.

In most cases, social exclusion is seen to apply to groups, involving the exclusion of individuals due to their membership of groups that suffer inequality and discrimination on racial, ethnic, gender, geographic or age grounds (Percy-Smith, 2000, Khan, 2012). Regardless of its European origin, SET can be used to understand social relations in Africa. Hence Bhalla and Lapeyre (2002) confirm that it has universal validity although it has not gained much attention in developing countries. One critical aspect of social exclusion is that it can be better understood by the group that feels deprived and excluded. Social exclusion emphasises people's own perceptions of their situation, rather than relying on definitions of the same from outside their group (De Haan, 1999). Cruz-Saco (2008) looks at social exclusion as an outcome of systematic and institutional discrimination that leaves out groups or individuals from the mainstream of societies. This form of exclusion demonstrates the paucity and absence of social cohesion and social integration. On the flip side of social exclusion is social integration which enables people to enjoy equal benefits, opportunities, rights, and services that are available in a society. As such, social integration can be understood as an antonym of social exclusion, deprivation, and neglect of citizens' rights (Cruz-Saco, 2008).

The concepts of social integration and social cohesion are closely aligned to the *Ubuntu* value system which is herewith adopted as a supplementary theoretical stance for constructing ethnic and social integration among people. As a moral philosophy, the *Ubuntu* value system assists in recognising that people, both at individual and group level, cannot exist in isolation. As such, they need other individuals and other groups for survival and for building social networks which are important for their collective growth and development. The late Emeritus, Arch-Bishop Desmond Tutu is cited in his famous quote saying: "Africans have this thing called *Ubuntu*. It is about the essence of being human; it is part of the gift that Africa will give the world. It embraces hospitality, caring about others, being able to go the extra mile for the sake of others. We believe that a person is a person through another person, that my humanity is caught up, bound up, inextricably, with yours." (Tutu, 2000). Ethnic rivalries cannot easily occur in a context where the *Ubuntu* value system is adequately embraced and sufficiently regarded as the moral philosophy that guides human behaviour towards other people whether they be of one own ethnicity, tribe, race, and religion. As such, adopting the *Ubuntu* value system can assist both at local and regional levels towards achieving social integration in Africa. Going against *Ubuntu* is tantamount to social deviance as contemplated by Emile Durkheim.

4. METHODOLOGY

A qualitative research approach was followed with a case study design adopted. The SET was used as the main theoretical framework for analysing the research problem. Purposive samples of Malamulele residents were constituted. Among the aspects considered for sample selection were employment status, location, marital status, age, and educational level, among other aspects. These were considered alongside the research problem and the objectives of the study for the purposes of yielding quality outcomes of the study. On the quality of the study, Shenton (2004) and Anney (2014) provide a guidance that trustworthiness, authenticity, and credibility are common in qualitative interpretive studies. Credibility confirms the truthfulness of the findings. As opposed to positivist studies, this study ascertained authenticity, credibility, authenticity, and trustworthiness of the outcome by ascertaining that the respondents understood interview questions before responding,

and through piloting the data collection instrument to determine the quality of data it would yield to see whether it would address the aim and objectives of the study (Lincoln and Guba, 1985; Anney, 2014).

Four groups from the sample were clustered as traditional leaders, religions leaders, selected residents from surrounding villages, and members of the task team that led the campaign towards the formation of a new municipality in Malamulele were involved. The original intention was to interview twenty (20) respondents, five (5) participants from each of the four groups. However, not all five participants in all four identified groups were available for interviews. For example, three (3) out of five (5) members of the task team were available and agreed to be interviewed. Out of five (5) targeted traditional leaders, only four (4) were available. The total shortfall of 3 participants from the targeted 20 was compensated by increasing the number of residents from selected villages and the number of religious leaders to seven (7) and six (6), respectively. This was considered alongside the fact that what is important in sampling is satisfying the principle of data saturation (Mason, 2010). **Table 1** below illustrates the demographic profile of the selected sample.

An unstructured interview was used to collect data which was analysed through thematic data analysis where various themes and sub-themes developed from the empirical findings. One of the limitations of the study is that the sample for this study was drawn from Malamulele residents, and some of the allegations made about residents of Vuwani in Venda were never triangulated. In that sense, the sampling strategy was biased towards the Malamulele residents. This suggests a follow-up study to triangulate a perspective from Vuwani especially because violent protests occurred in the area after the establishment of the Lim345 (Collins Chabane) Municipality in Malamulele.

Description of the Sample

Table 1: Demographic Profile of the Sample

| Respondents | Gender | Employment Status | Location | Marital Status | Educational Level | Number of people in Household | Age | |
|---|--------|-------------------|-----------------------|------------------------------|-------------------|-------------------------------|-----|--------------|
| Group 1: Village Residents (VRs) | | | | | | | | |
| 1. | VR 1 | Female | Unemployed | Shitlhelani Village | Single | Under-Graduate | 5 | 18-35 |
| 2. | VR 2 | Female | Employed | Mudabula Village | Married | Graduate | 4 | 36-60 |
| 3. | VR 3 | Female | Pensioner/ Elderly | Muchipisi Village | Married | Graduate | 3 | 61 and above |
| 4. | VR 4 | Male | Unemployed | Mapapila Village | Married | Under-Graduate | 5 | 36-60 |
| 5. | VR 5 | Female | Unemployed | Dinga Village | Single | Under-Graduate | 5 | 18-35 |
| 6. | VR 6 | Female | Employed | Shigalo Village | Widow | Graduate | 6 | 36-60 |
| 7. | VR 7 | Male | Unemployed | Madonsi Village | Married | Graduate | 5 | 36-60 |
| Group 2: Religious Leaders (RLs) | | | | | | | | |
| 8. | RL 1 | Female | Employed | Malamulele | Widow | Post-Graduate | 5 | 36 -60 |
| 9. | RL 2 | Male | Employed | Muchipisi Village | Married | Graduate | 5 | 36 -60 |
| 10. | RL 3 | Female | Employed | Malamulele | Married | Post-Graduate | 3 | 36 -60 |
| 11. | RL 4 | Female | Employed | Malamulele | Married | Graduate | 5 | 36 -60 |
| 12. | RL 5 | Female | Employed | Shigalo Village | Married | Post-Graduate | 10 | 36 -60 |
| 13. | RL 6 | Male | Employed | Malamulele | Divorced | Post-Graduate | 4 | 36 -60 |
| Group 3: Chiefs/Tribal Authorities/Traditional Leaders (TLs) | | | | | | | | |
| 14. | TL 1 | Male | Employed | Village identity (Protected) | Married | Under-Graduate | 7 | 18-35 |
| 15. | TL 2 | Male | Employed | Village identity (Protected) | Married | Post-Graduate | 3 | 61 and above |

| | | | | | | | | |
|--|-------|----------------------|----------|------------------------------|---------|----------------|----|--------|
| 16. | TL 3 | Male | Employed | Village identity) (Protected | Married | Under-Graduate | 4 | 36 -60 |
| 17. | TL 4 | Male | Employed | Village identity) (Protected | Married | Under-Graduate | 11 | 36 -60 |
| Group 4: Task Team Members (TTMs) | | | | | | | | |
| 18. | TTM 1 | (Protected identity) | Employed | (Protected identity) | Married | Post-Graduate | 20 | 36 -60 |
| 19. | TTM 2 | (Protected identity) | Employed | (Protected identity) | Married | Graduate | 6 | 36 -60 |
| 20. | TTM 3 | (Protected identity) | Employed | (Protected identity) | Married | Post-Graduate | 5 | 36 -60 |

Source: Researchers' Construct

5. FINDINGS: RELATIONSHIP BETWEEN VHAVENDA AND VATSONGA IN VHEMBE DISTRICT

As noted in the introduction, this article presents findings on one theme, among others, that was generated from an empirical study on the dissatisfaction of the VaTsonga residents in Malamulele while the area was under Thulamela Local Municipality which is in Thohoyandou which is predominantly a VhaVenda area. The thematic data analysis model was applied wherein data from the unstructured interviews was carefully studied to record emerging impressions from it. In the process, themes, and sub-themes as well as categories and sub-categories were identified. This allowed the researchers to identify patterns and connections within and between the categories. Granted that careful exercise of applying thematic data analysis as guided by the writings of Boyatzis (1998) as well as Braun and Clarke (2006), themes and connections were utilised to explain the findings of the study thereby interpreting the data. In this instance, only one theme that relates to the relationship between the VhaVenda and the VaTsonga in Vhembe District is discussed. The discussion is herewith foregrounded by the *Table 2* which was extracted from the main illustration that shows the way themes were developed in the empirical study conducted.

Table 2: Operationalisation of thematic data analysis-Development of themes and categories

| Theme 1: Relationship between Xitsonga-speaking and Tshivenda-speaking people | |
|---|---|
| Sub-Theme | Category |
| 1.1 Respondents' views on the relationship between the two ethnic groups | <ul style="list-style-type: none"> • The relationship is bad (<i>dominant view</i>) • The relationship is good (<i>less dominant</i>) |

Source: Researchers' Construct

With regards to the theme on the relationship between the two (2) groups in the Thulamela Local Municipality in Vhembe District, Limpopo Province, two (2) categories emerged wherein a few participants represented a view that the relationship between the two (2) ethnic groups is good, and the dominant category indicated that the relationship is bad. For this article, attention will be given to both views because they are quintessential in any attempt to bring about a balanced argument on social phenomena for analysis. As such, excerpts from the empirics are provided.

The less dominant view indicates that the relationship between the two (2) ethnic groups is good. From all sampled participants, this view was noted from three (3) respondents which constitute 15% of the entire sample selected. In their own words, one elderly communality member indicated that the two (2) ethnic groups are relatives and friends, otherwise, the fights that exist between them is caused by the Thulamela Local Municipality which is biased on matters of service delivery. In his own words, this is how he responded: *"They are relatives and friends, only the Thulamela Municipality wanted to destroy the relationship by biasness to Thohoyandou area in service delivery"* [VR 3]. Another participant who is a traditional leader indicated that the relationship has been good especially before the current local government dispensation. This is how he responded: *"The relationship is good...we have been relating well for a long time before the current government came into existence"* [TL 2]. The last one was a religious leader who indicated that: *"The relationship is good since the two ethnic groups have been staying together side by side with*

each other historically” [RL 5]. Important to note is that the respondents are referring to the notion that the relationship has been good from the past, however, the shift in government regime resulted in what is affecting the good relationship that the two (2) ethnic groups have always had from the past. This constitutes the less dominant view which is important to consider in this case regardless of how less the percentage of participants that represent it were.

In line with the views of the less dominant group of the sample as noted, Louw and Kendall (1986) contend that there was indeed peaceful co-existence of the two (2) ethnic groups before Apartheid separated them, and it was peaceful because the discrimination was not institutional. Therefore, the acrimony can be attributable to the apartheid to a certain extent. This category raises the need for adopting the Ubuntu value system and conciliation which is what proponents of peace-making and social integration would strongly recommend since the views are positive and in line with nation-building. However, while good relationship would be beneficial for nation-building and ensuring a cohesive society, and by extension regional integration, it is important to be realistic and not be oblivious to the prevailing conditions that require government attention to address issues between the two (2) ethnic groups. The researchers are of the view that the government and civil society should intervene in instances of ethnic hostilities and attempt to bring peace in the interest of building a cohesive nation.

Below are some of the responses by the dominant category whose position is that the relationship between the two (2) ethnic groups is bad. One of the Task Team Members (TTM) that championed the quest for Malamulele to obtain its own municipality indicated that: *“The relationship is bad, rather worse...the vha-Venda have a tendency of looking down upon us”* [TTM 2]. A similar response was provided by one of the village residents who blamed his unemployment status to the poor relationship between the two (2) ethnic groups in revealing that: *“The relationship is that of a cat and a rat since the vha-Venda do not want to interact with the Va-Tsonga. For example, they discriminate us in job opportunities because we don’t speak their language”* [VR 4]. The issue of looking down upon one another among the two ethnic groups was repeated by another village resident who indicated that: *“The relationship is very bad because the vha-Venda undermine va-Tsonga, and that’s why even the [Thulamela] Municipality is only serving them”* [VR 7]. A religious leader with a congregation of followers emphasised the idea that the VaTsonga people are undermined, and this comes with hatred between the two (2) ethnic groups. This is how she puts it: *“There is so much hatred between us because we undermine each other and believe that government services belong to one group”* [RL 3]. The last one from the selected extracts is a traditional leader who thinks the hatred is from the VhaVenda ethnic group towards the VaTsonga ethnic group, and such hatred is demonstrated through greed and selfish ambitions. This is what he had to say: *“Vha-venda hate us for no reason. Look, they want everything good to be theirs – very greedy, that’s why service delivery goes to Venda and nothing for us”*. The extracts provided come from the remainder of 85% of the sample whose view is that the relationship between the two ethnic groups is bad. According to the respondents, the relationship between the two (2) groups is bad and this makes sense looking at the intensity of the protests that occurred which included closing blocking the roads between Thohoyandou and Malamulele areas. Malamulele residents felt undermined and

disregarded by Thulamela Municipality whose headquarters are around the Thohoyandou area which is predominantly inhabited by the VhaVenda ethnic group. Some respondents alleged that Thulamela Municipality as led by TshiVenda-speaking people treated Malamulele (predominantly Xitsonga-speaking) and Thohoyandou (predominantly Tshivenda-speaking) residents unequally. As such, participants from the dominant category insinuate the issue of inequality between the two (2) ethnic groups. As noted in the theoretical framework section above, the findings of the study depict that there is inequality in Thulamela Municipality wherein the VhaVenda ethnic group is more at an advantage to enjoy government benefits ahead of the VaTsonga ethnic group. Sociologically, inequality is one of the sources of social problems in a society since it is linked to possible conflicts and social stress among other negative attributes. Thus, sociologists argue that inequality creates stress and social conflict in a society (Rodney, 1972; Perotti, 1996; Wilkinson, 1996). While analysing some of the views of the respondents, the researchers considered that there should be radical reconciliation between the two (2) groups in order to assuage the acrimony between them and forge some form of *esprit de corps*. Social cohesion and social integration are needed for collective development both at local level and internationally, thus it is important to deal with the issue of ethnic rivalry (Chan, To, & Chan, 2006).

6. DISCUSSION OF FINDINGS

Sen (2008) as well as Pervaiz, Chaudhary, and Staveren (2013) indicate that social inequality, cultural factors, and deprivation are linked with violence in a society. This, in part, accounts for the violent protests that occurred in the Thulamela Municipality. As noted in the empirics of the study, a conflict was spurred by apparent ethnic rivalry and feelings of being socially excluded.

As a country, South Africa has a *vade mecum* of reconciliation that seemed to have worked to some extent between the whites and the blacks as championed by the Truth and Reconciliation Commission (TRC) led by the late emeritus Arch-Bishop Desmond Tutu when democracy began. Although not entirely on *terra firma*, the reconciliation seemed to have succeeded at least to get the country moving forward and different racial groups to work together in taking the country forward. As such, the same kind of reconciliation is needed to mediate between the two (2) identified groups in the Limpopo Province towards building social cohesion between and among them. As such, government intervention is needed to assist in bringing the two (2) ethnic groups together.

Other African countries experience internal ethnic rivalries and perpetrate genocide among citizens of one tribe by another. Just to mention a few other cases of ethnic rivalry in African countries, ethnic genocide occurred in Rwanda between April to July 1994 wherein the Hutu tribe killed more than 800,000 people most of which were from the Tutsi tribe (Jean, 2006). Catholic Commission for Justice and Peace in Zimbabwe (1997); Sachikombe (2011), Ngwenya (2014) and Alexander (2021) discuss the *Gukurahundi* operation that occurred in the early 1980s in Zimbabwe where between 20 000 to 30 000 people lost their lives, property, and some were displaced from their homes during the uprising between the Shonas and Ndebeles.

Lunn and Thompson (2012) as well as Ottaway and El-Sadany (2012) report terminal ethnic violent conflict that occurred in Sudan and hundreds of lives were lost. While there are such issues at domestic level, there is no way in which regional integration and continental integration can be possible in Africa. Undermining ethnic rivalry by preaching and practising (not paying lip service) is the elephant in the room. Local, national, and regional integration will remain utopia until and unless this cancer that eats away at social solidarity in Africa is defeated.

Regardless of the challenges experienced in Africa, there is hope and potential for regional integration in the continent (Chingono & Nakana, 2009). However, the hope and potential for such integration begins with overcoming some of the perceived intractable obstacles that make integration impossible. Among many obstacles, this article focuses on two (2) inter-related major obstacles that should be surmounted as experienced in South Africa, among other African countries, and those are: *xenophobia* and *ethnic rivalry*. Harris (2002:169) defines xenophobia as a form of "dislike", "hatred or fear of foreigners". A country whose citizens are unable to live together in harmony because of ethnic and cultural differences cannot be able to welcome foreign nationals and integrate with them peacefully. There has been a strong sentiment in what is now known as Limpopo Province that goes like '*Mutonga ha a na shango* which is a TshiVenda phrase that can be interpreted to *a Tsonga person does not have/own land*. This sentiment was strongly held to an extent that the area occupied by the VaTsonga people belongs to the VhaVhenda people and as such, what could be seen as xenophobic behaviours occurred between the two (2) ethnic groups, and this serves as an obstacle to local integration especially in the area.

Besides, other reasons for xenophobia in South Africa, the failure for South Africans to accommodate each other sends a strong message to neighbouring countries that foreign nationals are not welcomed in South Africa which is a wrong message. It must be noted that Xenophobia is not unique to South Africa regardless of how much literature predominantly points it to South Africa. It is common among other African countries. Adeola (2015) and Tshishonga (2015) indicate that xenophobia has been a pressing challenge in Africa for many years, and not uniquely a South African phenomenon. Its evolution dates to the 1960s where countries such as Ghana and Nigeria raged agitations against each other and displaced millions of people. Therefore, South Africa is not the first country to experience xenophobic violence although attacks of xenophobic nature that erupted in South Africa in May 2008 left more than 60 people dead and thousands displaced. However, the same kind of practice equally resonated in the treatment of Somalian by Kenyans after the attacks by the Somali-dominated group and treatment of Rwandan refugees in Uganda (Adeola, 2015). This illustrate that Xenophobia is a continental issue, and certainly Africa's integration cannot be effectively sustainable while this obstacle persists.

7. CONCLUSION

The article was based on the research study conducted on governance and service delivery issues titled *Dissatisfaction of Malamulele residents with Service Delivery in Malamulele Area, Limpopo Province: A Sociological Investigation*. The empirical findings of the study were used to contend the thesis that since cooperation and integration at local government level proves to be

impossible, ineffective, and unsustainable, regional integration in Africa will not be possible since charity begins at home. It is imperative to first start by addressing local ethnic obstacles ahead of considering regional integration in Africa. The article looked at the findings of the study which emphasise that the relationship between the VaTsonga and the VhaVenda people in Thulamela Local Municipality, Vhembe District Municipality (in Limpopo) is bad. Part of the violent protests and total shutdown that occurred in Malamulele area was about this ethnic rivalry which also exacerbated inequality in the way the Thulamela Local Municipality served its citizens and residents. Violent protests intensified to a point where government had to assess the situation and allocate a new municipality (Collins Chabane Local Municipality) in Malamulele because the two (2) ethnic groups could not co-exist in the same municipality. Whether or not establishing a new municipality for Malamulele residents is a solution, the issue of ethnic rivalry between the VaTsonga and VhaVenda people continues to be a time-ticking bomb. This is the case because even after the establishments of the new Municipality, residents in Vuwani which is a VhaVhenda area were protesting and refusing to fall under the newly established Collins Chabane Local Municipality whose headquarters are in Malamulele. If this challenge is ignored, there can never be local integration, and as such, regional integration is a far-fetched dream.

The article took a brief look at the challenge of poor social integration in Africa basing the contention on the Vhembe District case study of poor integration among the two (2) dominant groups that constituted the Thulamela Local Municipality before Malamulele was allocated a new municipality. Poor integration was analysed through a lens of social exclusion theory as used in the research study conducted to make sense of rivalries that occur in local government. Social exclusion is also seen to be followed by violent responses from the excluded groups. In the context of the article, social exclusion was understood as an antonym of social integration and inclusion which in this case were aligned to the *Ubuntu* philosophy/moral value system. Overview of literature on social integration as an outcome of social cohesion was made looking at regional integration in Africa and its challenges. Several factors that threaten regional integration in Africa were highlighted. Some of the major obstacles that must be surmounted in the quest for regional integration in Africa were identified and discussed. Also, recommendations are provided on future scientific investigation around the subject of integration in Africa, and on what should be done in the quest for effective and sustainable regional integration.

8. RECOMMENDATIONS TOWARDS SOCIAL INTEGRATION IN AFRICA

The section on obstacles to be surmounted highlights some of the areas towards which attention should be focused to begin the journey towards effective and sustainable integration in Africa. Flowing from the discussion of this article, recommendations towards integration are discussed as follows:

- African countries should start off by addressing local cooperation and ethnic rivalries before they can focus on regional and continental integration. It is the key thesis of this article that charity begins at home. As such, scholars, policy makers, and all relevant stakeholders should assist African governments to develop and ascertain the implementation of social integration policies and strategies,

- There should be identification and analysis of countries' priorities, strengths, and weaknesses within regions in Africa to make meaningful contribution and intervention within regions. From the basis of this identification and analysis, regional policy alignment on areas of convergence can be developed. Areas of interdependence can be identified for better cooperation within the continent,
- African regions should ensure that the trans-national programmes that are developed are implemented across countries. Regional and continental organisations such as the Southern African Development Community (SADC), the New Partnership for Africa's Development (NEPAD), and the African Union (AU) should facilitate supranational developmental programmes to ascertain that the programmes are implemented across member states where countries have various roles to play and contribute towards the development of the region, and
- Follow-up scientific inquiry should be made especially in the Vhembe District area on the relationship between the VaTsonga and VhaVhenda ethnic groups since the establishment of a new municipality did not really address the ethnic rivalry but separated the two (2) without really delving into the roots of the ethnic rivalry. It will be crucial to also triangulate the view from Vuwani residents especially considering their discomfort that was demonstrated by violent protests being classified under the newly installed municipality.

Finally, an important domain for future research analysis regarding integration in Africa will be to determine the outcome of unequal benefits/spin-offs in areas where integration and interaction occur at regional level, and to determine whether there could be possible exploitation of one African state by another in the name of integration and cooperation. The outcome of such a study will help determine the intensity of inequality among African countries and the notion of equity in terms of contributing towards development in African regions. It is recommended for such an investigation to be conducted not only to enhance and excite the debate about regional integration in Africa, but also to guide towards preparing for effective and sustainable regional integration in the continent.

RERERENCES

- Adeola, R. (2015). Preventing Xenophobia in Africa: What Must the African Union Do? AHMR, 1(3), September- December 2015- Special Issue 253.
- Alexander, J. (2021). 'The Noisy Silence of Gukurahundi: Truth, Recognition and Belonging'. *Journal of Southern African Studies*, 47(5):763-785.
- Bhalla, A. & Lapeyre, F. (2002). 'Social Exclusion: Towards an Analytical and Operational Framework'. *Development and Change. Institute of Social Studies*, 28(1):413-433.
- Blum, R., Stanton, GH., Sagi, S., & Ritcher, ED. (2007). 'Ethnic Cleansing' Bleaches the Atrocities of Genocide. *European Journal of Public Health*. 1-6. Doi:10.1093/eurpub/ckm011.

Chan, J., To, H-P, & Chan, E. (2006). 'Reconsidering Social Cohesion: Developing a Definition and Analytical Framework for Empirical Research'. *Social Indicators Research*, 75(2):273-302.

Chingono, M. & Nakana, S. (2009). 'The challenges of regional integration in Southern Africa'. *African Journal of Political Science and International Relations*, 3(10):96-408.

Cloete, P. & Kotze, F. (2009). 'Concept paper on social cohesion/inclusion in local integrated development plans. Pretoria: Department of Social Development.

Crush, J. & Pendleton, W. (2004). *Regionalising Xenophobia? Citizen attitudes to immigration and refugee policy in Southern Africa*. Canada: SAMP.

Cruz-Saco, MA. (2008). *Promoting Social Integration: Economic, Social and Political Dimensions with a focus on Latin America*. United Nations, Department of Economic and Social Affairs, Division for Social Policy, and Development. http://www.un.org/esa/socdev/social/meetings/egm6_social_integration/documents/Promoting_Social_Integration.pdf (Accessed: March 07, 2017).

De Haan, A. (1999). *Social Exclusion: Towards a Holistic Understanding of Deprivation*, Social Development Department, Dissemination Note No. 2, Department for International Development, London, U.K. <http://webarchive.nationalarchives.gov.uk/+http://www.dfid.gov.uk/pubs/files/sdd9socex.pdf> (Accessed: April 30, 2015).

Eppler, A., Anders, LH., & Tuntschew, T. (2016). *Europe's political, social, and economic (dis) integration: Revisiting the Elephant in times of crises*. http://irihs.ihs.ac.at/4093/1/wp_143.pdf (Accessed: March 07, 2017).

Harris, B. (2002). *Xenophobia: A new pathology for a new South Africa?* In D. Hook & G. Eagle (Eds). *Psychopathology and social prejudice (169-184)*. Lansdowne: UCT Press.

International Holocaust Remembrance Alliance. (2015). *Killing Sites, Research and Remembrance*. Berlin: Metropol Verlag and IHRA.

Jean, M. (2006). *The Rwandan Genocide: The True Motivations for Mass Killings*. <http://history.emory.edu/home/documents/endeavors/volume1/Moises.pdf> (Accessed: September 07, 2015).

Khan, S. (2012). *Topic Guide on Social Exclusion*. Governance and Social Development Resource Centre. University of Birmingham. <http://www.gsdrc.org/docs/open/se10.pdf> (Accessed: April 30, 2015).

Kinge, GTW. (2016). *International Dimensions of Xenophobic Attacks on Foreign Nationals in South Africa*. Dissertation Submitted in Fulfilment of the Requirements for the Degree Master of Social Science in International Relations to the Faculty of Human and Social Science at the North-West University, Mafikeng Campus. Mafikeng: University of North West.

-
- Lawal, G. (2007). 'Corruption and Development in Africa: Challenges for Political and Economic Change'. *Humanities and Social Sciences Journal*, 2(1):1-7.
- Louw, L. & Kendall, F. (1986). *South Africa, The Soutlion*. Bisho, Ciskei: Amagi Publications (Pvt) Ltd
http://www.sahistory.org.za/sites/default/files/file%20uploads%20/leon_louw_frances_kendall_south_africa_the_solbook4you.org.pdf (Accessed: March 05, 2017).
- Lunn, J. & Thompson, G. (2012). *Sudan and South Sudan: All-out war? International Affairs and Defence Section; Economic Policy and Statistics Section*.
<http://researchbriefings.files.parliament.uk/documents/SN06142/SN06142.pdf> (Accessed: March 15, 2017).
- Manda, C., Knowles, J., Connors, J., & Mwombela, S. (2014). *Borders: Social Interaction and Economic and Political Integration of the East African Community*.
<http://www.icpublicpolicy.org/conference/file/reponse/1432899101.pdf> (Accessed: March 05, 2017).
- Mason, M. (2010). 'Sample size and saturation in PhD studies using qualitative interviews'. *Forum: Qualitative Social Research*, 11(3):8.
- Melander, E. (2007). *Ethnic Cleansing in Bosnia-Herzegovina, 1992-1995. Paper prepared for presentation at the conference on "Disaggregating the Study of Civil War and Transnational Violence"*, University of Essex, 24-25 November 2007.
<http://privatewww.essex.ac.uk/~ksg/dscw2007/Melander.pdf> (Accessed: March 15, 2017).
- Mulaudzi, C. (2009). 'New Regionalism in Southern Africa? Between South African Hegemony and Globalisation'. *Afrique australe, Afrique lusophone. Mondes fragmentés, histoires liées. Lusotopie*, 16:47-65.
- Ngwenya, D. (2014). *Healing the wounds of Gukurahundi: A Participatory Action Research Project. Submitted in fulfilment of the requirements of the Degree of Doctor of Technology: Public Management in the Faculty of Management Sciences at Durban University of Technology*. Durban: Durban University of Technology.
- Ottaway, M. & El-Sadany, M. (2012). *Sudan: From Conflict to Conflict*. Washington, DC: Carnegie Endowment for International Peace.
- Percy-Smith, J. (2000). *Policy responses to social exclusion*. Buckingham: Open University Press.
- Perotti, R. (1996). 'Growth, Income Distribution and Democracy: What the Data Say'. *Journal of Economic Growth*, 1(2):149-187.
- Pervaiz, Z., Chaudhary, AR., & Staveren, I. (2013). *Diversity, Inclusiveness and Social Cohesion. Working Paper No. 2013-1*. The Hague: International Institute of Social Studies of Erasmus University Rotterdam.
-

Qobo, M. (2007). *The challenges of regional integration in Africa. In the context of globalisation and the prospects for a united state of Africa*. ISS Paper 145. June 2007. Pretoria: Institute for Security Studies.

Rodney, W. (1972). *How Europe underdeveloped Africa*. London: Bogle-L'Ouverture Publications.

Sachikonye, L. (2011). *When a state turns on its citizens. 60 years of institutionalised Violence in Zimbabwe*. Auckland Park: Jacana Media

Sen, A. (2008). 'Violence, Identity and Poverty'. *Journal of Peace Research*, 45 (1):5-15.

Silver, H. (1994). *Social Exclusion and Social Solidarity: Three Paradigms. Discussion Paper Series No. 69*. Geneva: International Institute for Labour Studies.

Solomon, H. & Kosaka, H. (2014). 'Xenophobia in South Africa: Reflections, Narratives and Recommendations'. *Southern African Peace and Security Studies* 2(2):1-30.

South African News. (2019). *Social cohesion, Nation Building High on SA's Priorities*. <https://www.sanews.gov.za/south-africa/social-cohesion-nation-building-high-sas-priorities> (Accessed: June 11, 2019).

Tshishonga, N. (2015). 'The impact of xenophobia-Afrophobia on the informal economy in Durban CBD, South Africa'. *Td The Journal for Transdisciplinary Research in Southern Africa, December 2015, Special edition*, 11(4):163-179.

Tutu, D. (2000). *A gift from Archbishop Desmond Tutu: 'Ubuntu' (oo-boon-too)*. <https://www.cyc-net.org/today2000/today000328.html> [Accessed on: 26 Aug 2022].

Wilkinson, RG. (1996). *Unhealthy Societies: The Afflictions of Inequality*. New York: Routledge.

Zajontz, AT. (2013). *Regionalism in theory and practice: The transformative potential of civil society in Southern Africa. Thesis presented in partial fulfilment of the requirements for the degree of Master of Arts (International Studies) at Stellenbosch University*. Stellenbosch: University of Stellenbosch.

SSIRC 2023-017

USING MOTIVATIONAL FACTORS AND SPECTATOR SATISFACTION TO PREDICT INTENTION TO ATTEND MFC SOCCER LEAGUE

P.N. Mabasa

Vaal University of Technology, South Africa.

ABSTRACT

The sport industry is one of the fastest rising business segments. Its key purpose is to generate the revenue from sport spectators, whose presence is critical to the success of any sporting event. In the past decade, the behaviour of sport spectators has received increasing attention in academic literature. Motives for attending in sport differ, and intrinsic motivation, extrinsic motivation, and even amotivation can influence the choice. In the South African context, limited studies have been conducted on the variances of motivation among Motsepe Foundation Championship (MFC) spectators to participate in sport in terms of watching or attending. The aim of this study is to investigate motivational factors and spectator satisfaction to predict intention and attend MFC matches. Respondents comprised males and females from different ages and language groups in Gauteng, South Africa. The research design used for this study is a quantitative approach. A non-probability convenience sampling method was used, and a total of 256 spectators were approached to complete the self-administered questionnaire. Descriptive statistics was employed to analyse all the demographic factors and items in the study. Results indicated that team identification and social interaction have a significant relationship with spectator satisfaction. In addition, spectator satisfaction was found to be the determinant of spectator intention to attend MFC soccer matches. The present study's findings would contribute to the topic of South African sport (soccer) and, more precisely, on the noteworthy implications for sport consumption literature as well as practical implications for MFC soccer owners and sport consumers.

KEYWORDS: sport, spectators, motivational factors, South Africa, MFC Soccer League, football

1. INTRODUCTION

The sport business is one of the quickest rising business segments with its key aim/purpose to generate the revenue from sport spectators. In the past decade, the behaviour of sport spectators has received increasing attention in academic literature (Mahony et al., 2002; Abdolmaleki et al., 2018). Sport marketers are very interested in gaining a deeper understanding of how and why spectators travel long distances to stadiums to support their teams. Hundreds of thousands of casual spectators of all ages and genders congregate in soccer stadiums across the world every week to watch matches, making soccer one of the biggest sporting sensations (Mabasa, 2022). Soccer is the most popular sport in South Africa from both a participant and spectator perspective (Mogajane et al., 2019). Understanding sport consumers' intention to attend is arguably one of the most significant concerns in sport marketing and consumer-relationship management (Mabasa, 2022). As found in sport consumption literature, a "good relationship with sport consumers by sport clubs is an

essential factor for a successful sport business” because it is much cheaper to serve satisfied consumers and easier to sustain their support.

In sport, spectators are classified as the lifeblood of the game; nevertheless, some circumstances play a major role to motivate spectators to attend soccer matches (Shobian, 2016). For spectators, sport can offer an opening for individuals to join with one another by attending the games together and serve as a point of fundamental identity for individuals (Palanjian, 2012). However, in the previous year there was a decrease in attendance in universal sports, including MFC matches at Gauteng (South Africa). As cited by Shajie et al. (2020), spectators’ attendance is decreasing in several professional leagues throughout the world. The decrease in over-all attendance might be activated or caused by a growth in capacity, comfort, and suitability, as well as the decrease in costs and time commitment that come with watching games from one’s own home, or watching games online (Shobian, 2016).

In recent years, many individuals partake in sport events of their choice for different reasons, which comprise exercising, having fun, mastering skills, and spending time with family and friends (Won & Park, 2010). For example, sport spectators may be likely to attend a sport event because of identifying with the team and interacting as a way of spending time with others. On the other hand, some spectators are motivated by different motives compared to the above-mentioned motives. This has been supported by Wiid and Cant (2015), that each individual or group consumes sporting events for different motives and are therefore motivated in different ways. Having this in mind, having an insight on motivational factors that influence spectators’ intention to attend Motsepe Foundation soccer matches would provide more information to professional sport and South African Football Association (SAFA) in general. The Motsepe Foundation Championship is classified as revenue sports, which provide paid publicity and advertisement for the sport industry (Withey, 2013).

Studies have been undertaken globally and nationally to examine motivational factors that influence spectator attendance in sport events. In South Africa, Mabasa (2022) investigated selected motivational variables that influence spectator attendance of professional women’s soccer matches. Furthermore, Dubihlela et al. (2009) investigated motivational factors affecting fans’ decisions to attend Premier Soccer League (PSL) games in South Africa. Jere and Mathidza (2014) investigated motivational factors that influence football match attendance in the South African Premier Soccer League post the 2010 FIFA World Cup. Moreover, abroad, Lim (2014) investigated factors influencing spectator attendance at intercollegiate athletic events in Korea. Results of the above-mentioned studies stipulate that certain factors (identification and social interaction) influence spectators to attend sport events.

From the reviewed literature, it is unclear what motivational factors determine consumers’ decisions regarding choice among different sport event alternatives. Hence, looking at what motivate spectators of MFC will be paramount, since researchers seem to agree that the individual motivation of a spectator is a key factor affecting the intention to attend a sport event. As stipulated by Lee and Bae (2014), Mabasa’s (2022) understanding of the motives that influence a sport consumer’s

behaviour is important for understanding a consumer's choice that enhances a specific area of sport industry. It is significant to understand the motivation behind this process, and the benefits people receive when attending live sporting events, or supporting specific teams or athletes (Wiid & Cant, 2015). These perceived benefits are important as they cover the main motive why individuals attend sport events.

2. LITERATURE REVIEW

2.1 Overview of MFC

South African football has a long and rich history, producing some of Africa's and the world's greatest quality players. On July 20, 2022, the Motsepe Foundation officially confirmed that it had secured funding from companies associated with the "Motsepe Family" to sponsor the Premier Soccer League ("PSL") Second Division as part of its continuing dedication and contribution to continuing to develop and boost football and make South African football self-sufficient and internationally competitive (Simelane, 2022). The division was previously known as Glad Africa Championship and now is known as the MFC. The division falls under revenue sport because teams generate money from selling products and services. Hence, investigating what motivates spectators of this division to attend soccer matches would assist teams to generate revenue. In this division, there are sixteen (16) teams which are participating during the season. The MFC champions are automatically promoted to the Premiership, and the next two teams compete in a playoff with the second-last top-tier team from the DSTV Premiership. Position one (1) is awarded 3 million rands at the end of the league (Ndidi, 2022). This second division league plays a major role in the development of soccer players in South Africa.

2.2 Conceptual framework

The subsequent conceptual model was established. The conceptual framework presented in Figure 1.1 conceptualises the association between social interaction, team identification and satisfaction and intention to attend. Motivational factors form the predictor variables, with satisfaction acting as the mediating variable, which intention to attend is the outcome variable.

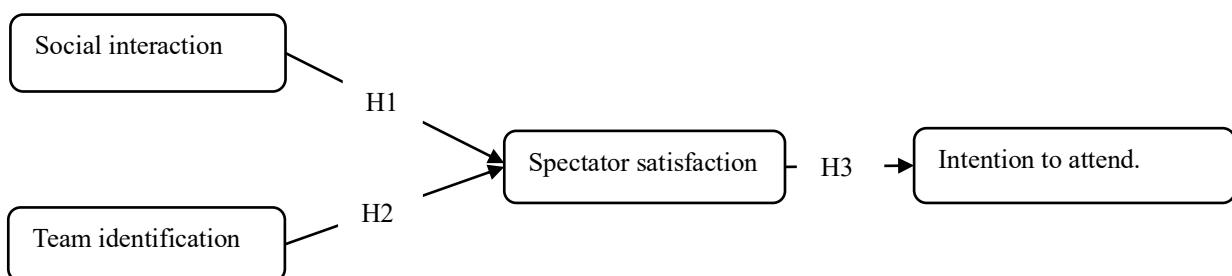


Figure 1.1 Conceptual framework

2.2.1 Social Interaction and spectator's satisfaction

Social interaction as a motive denotes the need of an individual to network with others and interact with people who share the similar interests as oneself (Stander & Van Zyl, 2016; Neus et al., 2019). Sport spectating has long played a pivotal role in satisfying people's need for social interaction.

Karakaya et al. (2015) uphold that individuals attend sporting events because of the social contacts made in sports, making socialisation and mimesis important motives for watching such events. There are some spectators who attend sport events to socialise, be entertained, and relax from their working routine (Shobian, 2016). The sport consumption literature agrees that a spectator can satisfy the need for social interaction through watching sports. In agreement, sport spectating can help satisfy the human need for social interaction by providing a sense of belongingness (Samra & Wos, 2014); most spectators who watch sports as a member of a social group suggests that spectators do indeed use sport to satisfy the need for social interaction. Mabasa (2022) found that social interaction has a positive relationship with spectator satisfaction in the sport consumption literature. In this case, the current study hypothesised that:

H1: *Social interaction has positive effect on spectator satisfaction.*

3.2 Team identification and spectator's satisfaction

The wide-ranging concept has been understood as “singleness with or belongingness with the organisation where an individual describes him or herself in terms of the organisation to which he or she is a member” (Lee & Kang, 2015). Research in sport consumption motives has demonstrated that the term ‘identification’ has long been deep-rooted in social identity theory (SIT) (Thomas et al., 2017). The theory suggests that individuals tend to classify themselves and others into groups which compare each other (Rondon-Azcarate, 2017). In this case, Lock et al. (2012) demonstrate support for SIT by indicating that individuals do their best to attach themselves to social groups that show a positive reflection on the way they view themselves. Spectators who have a strong unique identity form strong and distinct social group, which can be defined by the social identity theory that states, “people are defined by the groups in which they have membership” (Dwyer et al., 2016).

Understanding the importance of team identification is noteworthy because it provides a good relationship between spectators and clubs. Sung (2015) demonstrated that sport markets must understand the importance of ‘team identification’ because it results in a longstanding connection with a football club. Moreover, Theodorakis et al. (2012) cited that team identification plays a significant role in regulating a higher level of sport attendance by spectators, and thus a higher level of sport consumption because many spectators attend the sport event to watch their favourite player or team.

Team identification is perceived as the spectators’ perception of the connection between themselves and a sport team. Team identification has been documented as a motive which is closely connected to spectator satisfaction in sport consumption literature. Previous researchers such as Gray and Wert-Gray (2011); Beyrami and Najafzadeh (2014); Stroebel et al. (2019) found a positive relationship between team identification and spectator satisfaction. Team identification has directly impacted on satisfaction and may determine that highly identified supporters with their teams are most satisfied with their decision to go to the stadium to watch their team’s games (Silveira et al., 2018). In this case, the study proposes the following:

H2: *Team identification has positive effect on spectator satisfaction.*

3.3 Spectator satisfaction and intention to attend.

The satisfaction concept is considered one of the most essential constructs in sport marketing and businesses alike because it plays an important role in business performance as a predictor of purchase intention (Saleem et al., 2015). Satisfaction refers to any findings about requirement of goods and services which completes the pleasant level of consumption (Ioannou & Bakirtzoglou, 2016; Han & Hyun, 2018). A spectator's satisfaction in football matches can be a strong element to determine the loyalty of the spectator towards the sporting event (Pérez-Gálvez et al., 2017). Since there is intense competition between different football clubs, it is important to strengthen satisfaction of those spectators who attend matches. According to Gong et al. (2015:1671), in the context of a sport spectator, "consumer satisfaction is a key element to consumer holding strategies that aim at keeping [a] spectator satisfied with a specific team". In consumer behaviour studies, satisfaction leads to many post-purchase outcomes such as willingness to repurchase, spreading positive word-of-mouth and willingness to pay more (Chauke & Dhurup, 2017; Chauke, 2019). Desire to attend, future intention, intention to attend and behavioural intentions have been used interchangeably in consumer behaviour studies.

Intention to attend is defined by Dhurup (2012) as inclination of sports spectators to attend games and follow and support their much-loved team. In sport spectator studies, behavioural intention is defined as the intentions of spectators to attend future matches which they recommend to other people and remain loyal to them (Biscaia et al., 2013; Biscaia, 2016). Behavioural intention has been viewed by researchers as a reliable predictor of real behaviour because it processes the willingness to perform a particular behaviour (Park et al., 2018). As anticipated in this study, satisfaction is a reliable predictor of behavioural intentions (Haung et al., 2014; Hahm et al., 2016; Park et al., 2018; Duan et al., 2020). The level of satisfaction (or dissatisfaction) is produced by the sport spectatorship experience, which in turn touches commitment and willingness to attend. Research has demonstrated that spectator satisfaction has a positive relationship with game attendance (Foroughi et al., 2014). Also, Moreno et al.'s (2015) study revealed a positive relationship between a spectator's satisfaction and intention to attend sporting events. It is within this context that this study proposes the following:

H3: *Spectator satisfaction has a positive effect on spectator intention to attend within the context of soccer.*

3. METHODOLOGY

3.1 Research design

The study used a quantitative study approach. This approach identifies and attempts to explain the connection between variables in a population using mathematical expressions and statistical data. Quantitative research approaches are specific, well structured, have been validated and recognised, and can be properly defined and recognised (Creswell, 2015). Questionnaires were distributed to spectators of the MFC soccer league in Gauteng, South Africa.

3.2 Sampling method

The study population was limited to spectators of MFC soccer matches, in Gauteng province of South Africa. The sample was composed of individuals from both genders. A convenience sample technique was employed since the technique has appeal to financial and time restrictions.

3.3 Research instrument

A questionnaire with five sections was designed to collect data from the participants. Section A elicited biographical data of respondents. Section B was used to gather frequency of attendance using both multiple choice and dichotomous questions adapted from a study by Mabasa (2022). Section C, divided into sub-sections, comprised motivational factors (team identification and social interaction) measured by a five-item scale adapted from a study by Ballouli et al. (2017) and Choi et al. (2018). The five items in Section D, used to measure spectator satisfaction construct, were adapted from a study by Park et al. (2019). Finally, Section E measured the intention to attend an MFC construct by a five-item scale adapted from a study by Lee and Shiu (2015). All items on constructs under investigation were measured on a 6-point Likert scale ranging from one (strongly disagree) to six (strongly agree) with larger values representing more favourable or stronger perceptions of each construct.

3.4 Data collection

A cross sectional field survey with the aid of a self-administered structured questionnaire was used to generate the primary data in this study. Trained fieldworkers were used to administer the questionnaire. In most instances, participants completed the questionnaire in their own convenient time and returned it to the fieldworkers at a pre-set time. Participation of the respondents was voluntary, and no enticements were offered, thus responding to the survey tool of implied informed consent. Of the 300 questionnaires initially dispersed, a total of 44 questionnaires were discarded as essential information was missing, which resulted in 256 usable questionnaires for final analysis (translating to a response rate of approximately 85%).

3.5 Data analysis

The data was captured and analysed by means of the Statistical Package for the Social Sciences (SPSS), version 28.0. An exploratory factor analysis was performed on a sample of 256 responses, with the principal components analysis as the extraction technique and varimax as a rotation method to determine the number of factors measured by the instrument. In addition, correlation and regression analysis were used to examine the relationships between the study constructs.

4. RESULTS AND DISCUSSION

Sample composition

The sample included more males (n=159; 62%) than females (n=97; 38%). In terms of age, most of the respondents were between 18-29 years of age (n=120; 47%), followed by those who were under 30-39 years of age (n=86; 34%), those between 40-49 years of age (n=37; 14%) and respondents who were above 50 years of age (n=13; 5%). Most of the participants (n=145; 57%) attend MFC soccer matches monthly, followed by those who attend weekly (n=76; 30%) and

respondents who attend quarterly (n=35; 13%). All the participants attended MFC soccer matches between January 2022 and September 2022.

Summary statistics

Summary statistics are reported in Table 4. Considering that 5-point Likert scales were adopted in the study, mean scores greater than 3.5 were maintained (3.70, 3.74, 3.68 and 3.97), which denotes that respondent moderately agreed to the importance of the constructs among amateur sport coaches. The standard deviations are also very similar across the constructs (0.71; 0.74; 0.91 and 0.81). Two measures of peakedness were observed along the skewness and kurtosis values when assessing the symmetry of the sample data. The study used George and Mallery's (2016) less-conservative guideline, which states that skewness and kurtosis values between -2 and +2 are still within acceptable parameters for a normally distributed data set. The precise values of skewness reported in this research ranged between -0.474 and -1.052, indicating a slight negative skewness, and kurtosis values ranged between -.333 and +.901, implying that the set of data might be slightly flat.

Exploratory factor analysis

Exploratory factor analysis was adopted to ascertain construct validity of the measuring instrument. Prior to the factor analysis procedure, both Kaiser Meyer Olkin (KMO) and the Bartlett's test of sphericity were performed to determine whether the factor analysis was appropriate for the data set. Both test results reported in Table 1 affirmed that the data set was suitable for factor analysis. Principal component analysis was used to determine the minimum number of factors that would account for the maximum variance (>50%) in the conceptual model. Presented in Table 1 are results of the exploratory factor analysis for the research construct. All the study constructs were unidimensional.

Table 1: Exploratory factor analysis for the research constructs

| Constructs | Sampling¹ competence | Sig² | Eigen-values³ | % of variance⁴ | No of items | Factors extracted |
|---------------------------|--|------------------------|---------------------------------|----------------------------------|------------------------|------------------------------|
| Social interaction | 0.722 | .000 | 2.44 | 81.39 | 6 | 1 |
| Team identification | 0.820 | .000 | 4.02 | 80.39 | 6 | 1 |
| Spectator Satisfaction | 0.764 | .000 | 2.79 | 93.20 | 5 | 1 |
| Intention to attend | 0.864 | .000 | 3.72 | 93.13 | 5 | 1 |

¹Sampling adequacy is measured by the Kaiser-Meyer-Olkin measure (KMO). ²Sig is measured by the Bartlett's test of sphericity. ³Eigenvalue is measured by extraction of factors >1 using the Kaiser Criterion. ⁴% of variance measures the total of extracted variance resulting from factor extraction using the Kaiser criterion.

Correlations between variables

Prior to the use of correlations, tests for normality in the data were conducted. The results showed that the data were not normally distributed, hence the non-parametric Spearman's correlation coefficient (r) was computed to determine the pattern of correlation among the extracted factors (Saunders et al., 2016). The results of the correlation analysis are reported in Table 2. The

correlational matrix displayed moderate important positive correlations amongst the variables ranging from $r=.300$ to $r=.456$ at $p<0.05$ level of significance.

Table 2: Correlational matrix

| Construct | Social interaction | Team identification | Spectator satisfaction | Intention to attend |
|------------------------|--------------------|---------------------|------------------------|---------------------|
| Social interaction | 1.000 | .456** | .456** | .449** |
| Team identification | .456** | 1.00 | .300** | .355** |
| Spectator satisfaction | .456** | .300** | 1.00 | .374** |
| Intention to attend | .449** | .355** | .374** | 1.00 |

**Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

Regression analysis

Prior to conducting regression analysis, stringent examinations were conducted with a view to corroborate the assumptions of linear regression models along with co-linearity diagnostic checks. First, the adequacy of the sample size was assessed, since regression analysis could be influenced by inadequate sample size. A proposal has been made by Tabachnik and Fidell (2007), that a sample size of $N > 50 + 8m$ (where m = number of independent variables) is adequate to perform multiple regression analysis. The sample size of this study is 250 respondents, which is above the minimum of 66 respondents when two independent variables are involved.

Secondly, to check multi-collinearity, the inter-correlation matrix, tolerance value and the variance inflation factor for each independent variable were inspected. As shown in Table 2, there was no evidence of multicollinearity as all the variable correlations were below the threshold of 0.80 (Dhurup et al., 2014). Saunders et al. (2016) report that the tolerance values should be greater than 0.1 and the variance inflation factor (VIF) values should not exceed 10.0. As shown in Table 3, both values were acceptable, with the lowest tolerance value of 0.63 and the highest VIF of 1.96, indicating that multi-collinearity posed no problems in the study. To examine the relationship between the constructs, regression analysis was then conducted, and the results shown in Table 3.

Table 3: Results of regression analysis

| Dependent variables: Team satisfaction | Beta | T | Sig | Collinearity statistics | |
|---|-------|--------|-------|-------------------------|-------|
| Model 1: Independent variables | | | | Tolerance | VIF |
| Team identification | .142 | 2.344 | .020* | .824 | 1.214 |
| Social interaction | 0.426 | 7.0212 | .000* | 0.824 | 1.214 |
| R=0.502; R ² =0.655; Adjusted R ² =0.649; Sig. P<0.000; F change =41.654* significant at p<0.01 | | | | | |
| Dependent Variable: Intention to attend. | Beta | T | Sig | Collinearity statistics | |
| Model 2: Independent variables | | | | Tolerance | VIF |
| Team satisfaction | .414 | 7.160 | .000* | 1.000 | 1.000 |
| R=0.414; R ² =0.171; Adjusted R ² =0.168; F change =51.260* significant at p<0.01 | | | | | |

The outcomes designated that both social interaction and team identification enlightened roughly 25 per cent of the variance ($F=41.654$; $p<.01$) in model 1. When probing the beta co-efficient it appears social interaction is a stronger predictor ($\beta= 0.426$) of spectator satisfaction amongst

spectators of MFC soccer matches. In contrast, spectator satisfaction elucidated approximately 17 per cent of the intention to attend ($F=51.260$; $p<0.01$) in model 2.

Reliability and validity

To confirm the internal consistency of the measures used in the study, reliability tests (Cronbach alpha) were performed on all constructs under investigation. All the items in Table 4 had acceptable Cronbach alpha values that were greater than the recommended threshold of 0.70 (Malhotra et al., 2017), indicating that the multiple items used to assess each construct were reliable.

Table 4: Scale reliability and validity

| Research construct | | Cronbach's test | |
|-----------------------------|------|-----------------|----------------|
| | | Item-total | α value |
| Social Interaction (SI) | SI1 | .559 | .780 |
| | SI2 | .538 | |
| | SI3 | .569 | |
| | SI4 | .518 | |
| | SI5 | .559 | |
| Team Identification (TI) | TI1 | .589 | .794 |
| | TI2 | .507 | |
| | TI3 | .558 | |
| | TI4 | .601 | |
| | TI5 | .503 | |
| Spectator Satisfaction (SS) | SS1 | .610 | .918 |
| | SS2 | .739 | |
| | SS3 | .745 | |
| | SS4 | .689 | |
| | SS5 | .737 | |
| Intention to attend (WTA) | ITA1 | .717 | .894 |
| | ITA2 | .634 | |
| | ITA3 | .713 | |
| | ITA4 | .617 | |
| | ITA5 | .623 | |

The computation of both convergent and discriminant validity ensured construct validity. To assess the discriminant validity of the constructs, exploratory factor analysis was used. There were no cross-loadings and all the items loaded together on the intended constructs, showing that the data set supports discriminant validity of the constructs. The correlational matrix revealed sufficient significant positive correlations between variables, as shown in Table 2, showing evidence of convergent validity. Furthermore, all the item-total correlations in Table 4 were greater than 0.50, indicating convergent validity (Malhotra et al., 2017).

Discussion

The first hypothesis (H1) hypothesised that social interaction would display a positive relationship on spectator satisfaction among spectators of MFC soccer matches. As predicted, this hypothesis

was supported ($\beta = 0.426$, t -value = 7.021, $p < 0.000$). This result was also substantiated by a moderate constructive correlation ($r = 0.456$, $p < 0.05$). These remarks are consistent with previous research findings, which confirm that social interaction is positively associated with spectator satisfaction and indeed predicts intention to attend (Prayag & Grivel, 2018; Chiu et al., 2019; Mabasa, 2022). In this study, these findings provide support for the perception that spectators who are more highly motivated to satisfy a social interaction motive through sport consumption will more frequently attend sporting events because their needs and motives are stable over time.

The second hypothesis (H2) postulated that there would be a positive relationship between team identification and spectator satisfaction among MFC spectator. This hypothesis was supported with a direct effect ($\beta = 0.142$, t -value = 2.344, $p \leq 0.01$). This result was also supported by the existence of a moderate positive correlation coefficient ($r = 0.300$, $p \leq 0.01$). These results of the study are in line with findings found in the research literature about the constructs of team identification and spectator satisfaction, demonstrating that these constructs have positive and significant effects on each other (Bodet & Bernache-Assollant; 2011; Dhurup, 2012; Hallmann et al., 2018; Silveira et al., 2018). Within a sport consumption setting, the individual team identification of spectators would impact on the level of overall spectating satisfaction.

The third hypothesis (H3) postulated that spectator satisfaction would positively influence spectator's intention to attend MFC soccer matches. This hypothesis was confirmed ($\beta = 0.414$, t -value = 7.160, $p < 0.000$). The result was also validated by a reasonable positive correlation ($r = 0.374$, $p < 0.01$). The findings validate previous research that established the significance of spectator satisfaction in the upkeep of intention to attend soccer matches (Haung et al., 2014; Foroughi et al., 2014; Moreno et al, 2015; Park et al. 2019; Duan et al., 2020). The level of satisfaction (or dissatisfaction) produced by sport spectatorship influences commitment and willingness to attend soccer matches. This suggests that an individual with a high level of soccer satisfaction and who experiences a greater beneficial impact without any or little detrimental effect has a higher intention to attend MFC soccer matches.

5. CONCLUSION

This research study builds on previous studies that show the importance of motivational factors (social interaction and team identification), spectator satisfaction, and intention to attend soccer events. It reinforces studies' findings on sport consumption, with a focus on South Africans, and provides findings on the interrelationships between motivational factors, spectator satisfaction, and intention to attend MFC's soccer matches. Sport consumer satisfaction provides numerous advantages to clubs and teams in the realm of sports that enjoy many spectators whose presence in stadiums brings in the main source of income for sport clubs.

Stadium attendance revenue is one of the most important revenue streams for professional soccer clubs. In this regard, it is crucial that soccer teams maintain the highest stadium attendance. If stadium attendance is viewed as a market, researchers ought to consider sport spectators to be sport customers and incorporate the two concepts. Even though attendance at sporting events such as MFC's soccer

matches may have decreased due to the COVID-19 lockdown regulations, which influenced ticket sales, more high-quality players and technical personnel may become available or employed, allowing for greater technical support and competitiveness. Overall, this study has contributed to a better understanding of MFC spectators and their motivation for watching sports, which may aid sport organisations to better comprehend their spectator base.

REFERENCES

- Abdolmaleki, H., Mirzazadeh, Z. S., and Ghahfarokhhi, E. A. (2018). Identify and prioritise factors affecting sports consumer behaviour in Iran. *International Journal of Sport Management and Marketing*, 18(1-2),42-62.
- Ballouli, K., Reese, J., and Brown, B. (2017). Effects of mood states and team identification on pricing in the secondary ticket market. *Sport, Business and Management: An International Journal*, 7(3),1-41.
- Beyrami, M. H., and Najafzadeh, M. R. (2014). The relationship between team identity and spectator satisfaction in Tractorsazi Tabriz football team. *Indian Journal of Fundamental and Applied Life Sciences*, 4(3),964-968.
- Biscaia, R. (2016). Revisiting the role of football spectators' behavioral intentions and its antecedents. *The Open Sports Sciences Journal*, 9(1),3:12.
- Biscaia, R., Correia, A., Yoshida, M., Rosado, A., and Marôco, J. (2013). The role of service quality and ticket pricing on satisfaction and behavioural intention within professional football. *International Journal of Sports Marketing & Sponsorship*, 14(4),42-68.
- Bodet, G., and Bernache-Assollant, I. (2011). Consumer loyalty in sport spectatorship services: The relationships with consumer satisfaction and team identification. *Psychology & Marketing*, 28(8),781-802.
- Chauke, X. D. & Dhurup, M. (2017). A generation X cohort analysis of E-shoppers: Satisfaction, loyalty and repurchase intentions in a developing country. *Journal of Social Sciences*, 52(1-3),145-154.
- Chauke, X. D. (2019). Market and socio-psychological factors affecting organic food purchase decision and post-purchase outcomes in South Africa. (PhD Dissertation), University of Witwatersrand, Johannesburg.
- Chiu, W., Won, D., and Leng, H.K. (2019). The relationship between sport involvement, perceived event prestige, and the intention to attend annual spectator events. *Asia Pacific Journal of Marketing and Logistics*, 35(1),1405-1421.
- Choi, C., Greenwell, T. C., and Lee, K. (2018). Effects of service quality, perceived value, and consumer satisfaction on behavioral intentions in virtual golf. *Journal of Physical Education and Sport*, 18(3),1459-1468.

-
- Creswell, J. (2015). *Educational research: planning, conducting, and evaluating quantitative and qualitative research*. Thousand Oaks, CA: Sage.
- Dhurup, M. (2012). Victory may have a thousand supporters, but defeat may have none: Effects of team identification on BIRGing and CORFing, satisfaction and future behavioural intentions. *African Journal for Physical, Health Education, Recreation and Dance*, 18(4:1), 742-758.
- Dhurup, M., Mafini, C., and Dumasi, T. (2014). The impact of packaging, price and brand awareness on brand loyalty: evidence from the paint retailing industry. *Acta Commercii*, 14(1),1-9.
- Duan, Y., Liu, B., and He, Y. (2020). Study on relationships among sports spectator motivations, satisfaction, and behavioral intention: empirical evidence from Chinese marathon. *International Journal of Sports Marketing and Sponsorship*, 21(3),409-425.
- Dubihlela, J., Dhurup, M., and Suriyal, J. (2009). Motivational factors affecting fan decisions to attend Premier Soccer League (PSL) games in South Africa. *African Journal for Physical, Health Education, Recreation and Dance*, (Supplement),155-171.
- Dwyer, B., Greenhalgh, G., and LeCrom, C. (2016). Niche-versus mainstream-sport spectators: An analysis of need for uniqueness and sport eFANgelism. *International Journal of Sport Communication*, 9(3),364-383.
- Foroughi, B., Shah, K., Nikbin, D., and Hyun, S.S. (2014). The impact of event quality on fan satisfaction and game attendance in the context of professional soccer in Iran. *International Journal of Sports Marketing and Sponsorship*, 15(3),40-56.
- George, D., and Mallery, P. (2016). *IBM SPSS Statistics 23 Step by Step Simple Guide and Reference*. 4th ed. New York: Routledge.
- Gong, B., Pifer, N. D., Wang, J. J., Kim, M., Kim, M., Qian, T. Y., and Zhang, J. J. (2015). Fans' attention to, involvement in, and satisfaction with professional soccer in China. *Social Behavior and Personality: An International Journal*, 43(10),1667-1682.
- Gray, G. T., and Wert-Gray, S. (2012). Customer retention in sports organization marketing: examining the impact of team identification and satisfaction with team performance. *International Journal of Consumer Studies*, 36(3),275-281.
- Hahm, J. J., Breiter, D., Severt, K., Wang, Y., and Fjelstul, J. (2016). The relationship between sense of community and satisfaction on future intentions to attend an association's annual. *Tourism Management*, 52(C),151-160.
- Hallmann, K., Oshimi, D., Harada, M., Matsuoka, H., and Breuer, C. (2018). Spectators' points of attachment and their influence on behavioural intentions of women's national football games. *Soccer and Society*, 19(7),903-923.
- Han, H., and Hyun, S. S. (2018). Role of motivations for luxury cruise traveling, satisfaction, and involvement in building traveler loyalty. *International Journal of Hospitality Management*, 70(1),75-84.
-

-
- Haung, C., Yen, S., Liu, C., and Chang, T. (2014). The relationship among brand equity, customer satisfaction, and brand resonance to repurchase intention of cultural and creative industries in Taiwan. *International Journal of Organizational Innovation*, 6(3),106-120.
- Ioannou, P., and Bakirtzoglou, P. (2016). The relationship between stadium factors on spectators' satisfaction in Greek Soccer Super League. *Journal of Human Sport & Exercise*, 11(4),437-443.
- Jere, M. G., and Mathidza, S. (2014). Investigating motivational factors that influence football match attendance in the South African Premier Soccer League post the 2010 FIFA world cup. *Mediterranean Journal of Social Sciences*, 5(20),563-569.
- Karakaya, F., Yannopoulos, P., and Kefalaki, M. (2015). Underlying motivations for attending soccer games. *Cultural Perspectives in a Global Marketplace*, 6(2),121-125.
- Lee, J. S., and Kang, J. H. (2015). Effects of sport event satisfaction on team identification and revisit intent. *Sport Marketing Quarterly*, 24(4),225-234.
- Lee, K. Y., and Bae, S. W. (2014). The effect of factors on foreign spectators' intention to attend the Korean Professional Baseball Games. *Universal Journal of Management*, 2(7),265-271.
- Lee, L., and Shiu, C. (2015). Factors affecting sport event attendance: difference between participants and spectators. *The Journal of International Management Studies*, 10(2),27-36.
- Lim, J. G. (2014). Factors influencing student attendance at intercollegiate athletic events: a study in Korea. (Doctor of Philosophy), Oregon State University.
- Lock, D. T., Tailor, T., Funk, D., and Darcy, S. (2012). Exploring the development of team identification. *Journal of Sport Management*, 26(4),283-294.
- Mabasa, P. N. (2022). Selected motivational variables that influence spectator attendance of professional woman's soccer matches (master's dissertation) Vaal University of Technology, Vanderbijlpark.
- Mahony, D. F., Nakazawa, M., Funk, D. C., James, J. D., and Gladden, J. M. (2002). Motivational factors influencing the behaviour of J. League spectators. *Sport Management Review*, 5(1),1-24.
- Malhotra, N. K., Nunan, D., and Birks, D. F. (2017). *Marketing research an applied approach*. 5th ed. New Jersey: Pearson.
- Mogajane, V.S., Du Plessis, E., and Slabbert, E. (2019). Assessing the importance of spectators to soccer teams in South Africa: A management perspective. *Acta Commercii*, 19(1),1-10.
- Moreno, F. C, Hervás, J. C., Prado-Gascó, V., and Núñez-Pomar, J. N. (2015). Spectator emotions: Effects on quality, satisfaction, value, and future intentions. *Journal of Business Research*, 68(7),1445-1449.
- Ndidi, S. (2022). NFD clubs say they are in the dark on spin-offs of Motsepe-funded league. Retrieved from <https://www.sowetanlive.co.za/sport/soccer/2022-09-01-nfd-clubs-say-they-are-in-the-dark-on-spin-offs-of-motsepe-funded-league/>
-

-
- Neus, F., Nimmermann, F., Wagner, K., and Schramm-Klein, H. (2019), January. Differences and similarities in motivation for offline and online eSports event consumption. In: *Proceedings of the 52nd Hawaii International Conference on System Sciences*, January 08, Hawaii: 2458-2467.
- Palanjian, C. (2012). factors influencing student and employee attendance at college football games. (Master's Thesis), University of North Carolina.
- Park, J., Sung, J., Son, J., Na, K., and Kim, S. (2018). Athletes' brand equity, spectator satisfaction, and behavioral intentions. *Asia Pacific Journal of Marketing and Logistics*, 31(2),541-558.
- Pérez-Gálvez, J. C., Lopez-Guzman, T., Gomez-Casero, G., and Cardozo, J. V. F. (2017). Segmentation of the spectators attending a festival based on musical preferences. *International Journal of Event and Festival Management*, 8(3),346-360.
- Prayag, G., and Grivel, E. (2018). Antecedents of sport event satisfaction and behavioural intentions: the role of sport identification, motivation, and place dependence. *Event Management*, 22(3),423-439.
- Rondon-Azcarate, A. Y. (2017). Fan motives for identifying with professional tennis players. (DPhil Dissertations), University of Northern Colorado. 406.
- Samra, B., and Wos, A. (2014). Consumer in sports: Fan typology analysis. *Journal of Intercultural Management*, 6(4),263-288.
- Saunders, M., Lewis, P., and Thornhill, A. (2016). *Research methods for business students*. 7th ed. England: Pearson Education.
- Shajie, K., Talebpour, M., Azimzadeh, S. M., Keshtidar, M., and Jabbari, N. H. (2020). Spectators on the run: Factors affecting football attendance in Iranian football matches. *Annals of Applied Sport Science*, 8(1),1-13.
- Shobian, M. S. (2016). Factors affecting spectators' decision in attending minor league baseball home games. *ETD Archive*. 949.
- Silveira, M. P., Cardoso, M. V., and Quevedo-Silva, F. (2018). Factors influencing attendance at stadiums and arenas. *Marketing Intelligence & Planning*, <https://doi.org/10.1108/MIP-02-2018-0048>.
- Simelane, R. (2022). Motsepe Foundation and Psl Launch MFC. Retrieved from <https://www.motsepefoundation.org/motsepe-foundation-and-psl-launch-motsepe-foundation-championship/>
- Stander, F. W., and Van Zyl, L. E. (2016). See you at the match: motivation for sport consumption and intrinsic psychological reward of premier football league spectators in South Africa. *South African Journal of Industrial Psychology*, 42(1),1-13.
- Stroebel, T., Woratschek, H., and Durchholz, C. (2019). Clothes make the fan: The effect of team merchandise usage on team identification, fan satisfaction and team loyalty. *Journal of Global Sport Management*, 6(2),1-18.
-

Sung, J. (2015). *Intangible benefits of team identification, and the factors which generate it, toward intercollegiate athletic programs in students' college adjustment*. Fayetteville: Theses and Dissertations, 1253.

Tabachnick, B. G., and Fidell, L. S. (2007). *Using Multivariate Statistics* (Pearson International Edition). Edinburgh: Harlow.

Theodorakis, N. D., Wann, D. L., Nassis, P., and Luellen, T. B. (2012). The relationship between sport team identification and the need to belong. *International Journal of Sport Management and Marketing*, 12(1-2),25-38.

Thomas, W. E., Brown, R., Easterbrook, M. J., Vignoles, V. L., Manzi, C., D'Angelo, C., and Holt, J. J. (2017). Social identification in sports teams: The role of personal, social, and collective identity motives. *Personality and Social Psychology Bulletin*, 43(4),508-523.

Wiid, J. A., and Cant, M. C. (2015). Sport fan motivation are you going to the game. *Journal of Academic Research in Business and Social Science*, 5(1),383-398.

Withey, S. (2013). Fan motivation for attendance to men's division I college soccer matches. *All Theses*. 1662.

Won, D., and Park, M. (2010). Motivating factors influencing college students' participation in charity sport events. *International Journal of Sport Management and Marketing*, 8(3/4),296-321.

SSIRC 2023-018**THE AID OF RHINO DEOXYRIBONUCLEIC ACID INDEX SYSTEM TO COMBAT RHINO POACHING: A SCOPING REVIEW OF SOUTH AFRICAN EXPERIENCES****W. Maluleke**

University of Limpopo, South Africa

N.F. Shibambu

University of Limpopo, South Africa

ABSTRACT

The use of Rhino Deoxyribonucleic Acid Index System (RhoDIS) project by collecting samples and information to combat rhino poaching is confronted by many challenges. This review analyses poaching as crime, while offering complexities of combating it, aided by the RhoDIS. This review study draws from relevant sources on this subject by highlighting the nature and extent of rhino poaching in South Africa, to induct RhoDIS, while describing the use of RhoDIS for combating rhino poaching and establishing the nexus between selective anti-rhino poaching strategies and RhoDIS in South Africa to share South African experiences collectively. This scoping review was supported by the adapted version of the Arksey and O'Malley (2005) methodological framework on the subject under research. An extensive literature searches were conducted using these databases: 'Google, Google Scholar, EbcoHost, Emerald Insight, Jstor, Internet sources, ProQuest, Sabinet, Sage Online, and Science Direct, amongst others.' A total of 592 749 articles were retrieved from the selected databases [749] and internet sources [592 000] and only 41 met the eligibility criteria to be used for data extractions, based on South African context. The grey literature in a form of Dissertations/Theses, official publications - websites of international organisations, such as World Wildlife Fund (WWF), Save the Rhino and government report (Department of Forestry, Fisheries, and the Environment - DFFE and Department of Environmental Affairs - DEA) were also searched. Moreover, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was employed to ensure data analysis and trustworthiness of findings of this review, based on reviewed conventional and seminal literature studies on this subject.

This review establishes that rhino poaching is supposedly linked to illegitimate trade of Ivory Tusks and rhino horns in Asia. This shows how vast this criminal enterprise is becoming, targeting the mentioned sought-after materials. Despite breakthroughs of local and foreign nationals' arrests, due to their alleged involvement in committing this crime, the conventional policing methods failed to impede the touted 'atrocious carnage' of rhino horns. This review further reveals that the local South African Police Service (SAPS) and other private Law Enforcement Agencies (LEAs) are faced with a risky demanding task associated with combating rhino poaching in South Africa. It is concluded and recommended that the RhoDIS can possibly deter poachers and assist in forensic investigations, leading to positive prosecutions.

KEYWORDS: Combat, Police [Experiences], Rhino Deoxyribonucleic Acid Index System, Rhino poaching, Scoping review, South Africa

1. INTRODUCTION

For many years, South Africa has been the premier country on the African continent offering the opportunity to hunt the legendary ‘big Five (05), namely:’ Lion, Leopard, Buffalo, Elephant, and rhinoceros (Milliken & Shaw, 2012). Cheteni (2014) highlights that human activities contributes to environmental destructions, diseases and food security and it can be referred as the real threats to the existence of Mammals in Africa. For example, the Black rhinoceros (*Diceros Bicornis*) and White rhinoceros (*Ceratotherium simum*) are touted as victims of human planned environmental destructions, which are said to be facing extinction, all the Five (05) species of rhino are believed to be subjected to human exploitations in the past and recently and they are always threatened with extinctions (De Beer, 2016). Further, Duffy (2010) highlights that the practices of poaching from ‘conservationist perspectives’ cover variety of activities, to be confined to Two (02) main types; namely: **1) Subsistence poaching**, and **2) Commercial poaching**. The former is used only to meet food and medicinal needs of local communities. The latter is regarded as tales of ‘ignorance, greed, mass killing of wildlife and linkages to the international illegal trade and a complex phenomenon.’ The employed *Modus Operandi (MO)* differs on each type; the ‘Snares and Traps’ are often used for the subsistence poaching, while the commercial poachers utilise more sophisticated methods, and they are more likely to be heavily armed, involving large number of organised criminals and networks.

In addition, South Africa, with such an environmentally thriving and enabling landscape, has provided the grounds for conservation efforts. Since the 1960s, there has been a noticeable shift to wildlife centred land use amongst private landowners and, in the present times, game ranches in South Africa cover an area nearly thrice the size of all national and provincial reserves owned by the state (Milliken & Shaw, 2012). Therefore, the researchers contend that during the past few years, South Africa and Mozambique experienced alarming rates of rhinoceros (Rhinos) poaching from different National parks and Game farms. The witnessed killings are not for subsistence hunting, but for illegal trades of ivory tusks and rhinoceros’ horns to Asian countries, as well as China.

According to WWF (2012), a leading organisation in wildlife conservation and endangered species, “rhino crime syndicates in South Africa have been linked to criminal activities such as drug and diamond smuggling, human trafficking and illegal trade in wildlife products such as elephant ivory and abalone.” Quite recently, several individuals of various nationalities were charged for criminal offences relating to the killing of rhinos, and subsequently for “de-horning”. The illegal dehorning of rhinoceros is perpetrated by the long existing sale of these horns in the Asian markets for medicinal purpose, amongst others. Moreover, rhino poaching has been recorded as a counter-cultural history worldwide. It is said that during the reign of Henry III (1216-1272) people in England could appear before the forest eye (The highest magistrate in forest law) charged with trespassing in the forest by night in defiance of the forest laws (Turner, 1901). Any poacher caught for killing any of these animals or found in possession of venison would be sent to prison forthwith

and only be released by the order of the king himself. Hunting of these animals was in terms of stricter permit laws and sometimes no permit at all. It is recorded that the only animals declared as ‘beast of chase’ were those whose existence were threatened with extinction (Turner, 1901).

The RhoDIS partnered with the local South African Police Service (SAPS) and various ‘Provincial Wildlife Enforcement Authorities and the DEA for ensurance of successful prosecutions in rhino poaching cases. This new technique enables analysis of nuclear Deoxyribonucleic Acid (DNA) taken from Rhino horn samples to identify individual rhinos, with the goal to aid protection of rhinos in Africa through the application of DNA testing techniques that have been used for many years in human forensic testing and investigations (Milliken & Shaw, 2012). The primary aim of the RhoDIS database is to offer support to the investigations of rhino poaching incidents, employing forensic DNA testing. The rhino DNA evidence is used to prove rhino poaching court cases successfully (Smit & Van Wyk, 2023). Besides, the rhino samples from living animals, stockpiled horns, and forensic cases, mainly focusing on poaching form part of the database and its powerful nature in linking forensic evidence to Animals is highly celebrated in South Africa (Davis, 2018). Scutti (2018) indicates that the DNA database can be adopted to help linking international traffickers of rhinoceros horns to the scene of poaching incidences.

Largely, the prevalence of rhino poaching in the African continent is not new. The conservational methods are implemented by various National governments in Africa, with vast strategies comprising huge investments to combat this crime are tried, with minimum successes and hope. Several methods that involve combatting, investigate and prevent rhinos poaching continue to be threatened as many African National governmental structures have little political will to protect and preserve rhinos. Thus, there is an urgent need to implement effective Anti-poaching strategies to combat, investigate and prevent the poaching rate (Cheteni, 2014). Positively, the DNA analysis can be a powerful LEAs tool in the fight against rhino-related crimes, based on its positive prosecution of domestic rhino poaching cases. Furthermore, the governments around the world continue to demonstrate willingness to share rhino horn DNA samples with South Africa, as this country have best data set available for conducting DNA forensic analysis, with LEAs capable to effectively act on the identified DNA results, including sharing of key Intelligence-Led Policing (ILP) information with the relevant LEAs counterparts abroad and their partner agencies, such as the DFFE.

2. IDENTIFYING RELEVANT LITERATURE STUDIES

2.1 Identifying research question.

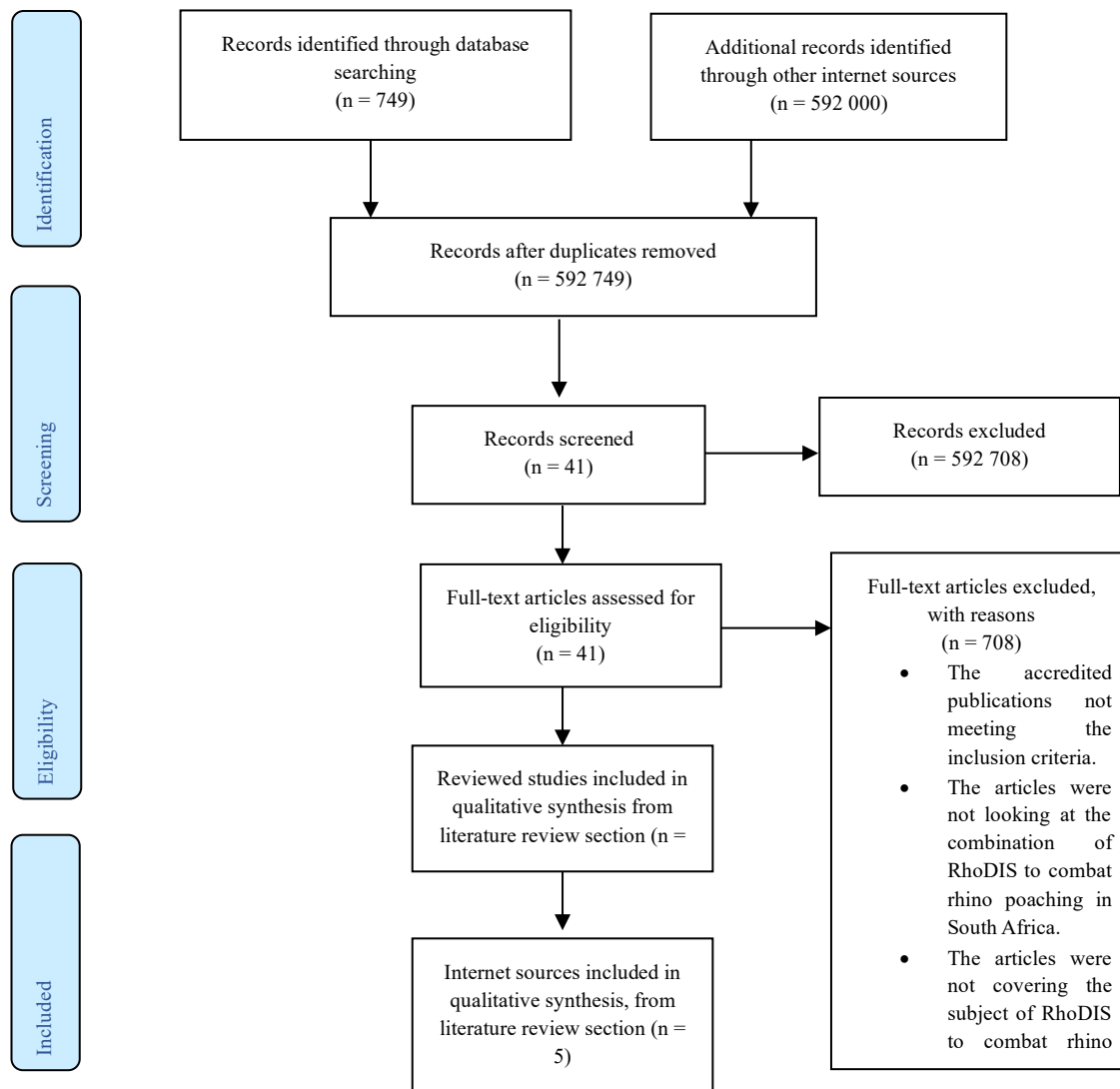
To develop a research question, Muka, Glisic, Milic, Verhoog, Bohlius, Bramer, Chowdhury and Franco (2020) advise researchers to clearly draw down the research aim of the study. If the research aim is not clear, then the research question will not be offering researchers an opportunity to build the search strategy. In this review, the study’s aim was to *‘explore the aid of RhoDIS to combat rhino poaching, focusing on South African experiences.’* Stemming from the aim of this review, this scoping review aims to address the following broad research question: *What value does RhoDIS*

add to the SAPS and LEAs [Including other public and private stakeholders] roles to combat rhino poaching in South Africa?

Furthermore, another two (02) specific research questions to be addressed by this review were designed as follows:

1. What are the relevant stakeholders responsible for using the RhoDIS to combat rhino poaching in South Africa?
2. What kind of publications and findings are shared by ‘governmental publications, official reports, internet sources/online media platforms, journal articles, Dissertation, Thesis, books, chapters in a book, and Newspapers’ on the aid of RhoDIS to combat rhino poaching in South Africa?

Figure 1: PRISMA - Flow chart of study selection



Source: Adapted from Maluleke, Musekiwa, Kgarosi, Gregor, Dlangalala, Nkambule, Mashamba-Thompson (2021)

2.2 Identifying relevant studies.

The researchers relied on different sites to source relevant literature studies on this subject, these are: ‘Google, Google Scholar, EbcoHost, Emerald Insight, Jstor, Internet sources, ProQuest, Sabinet, Sage Online, and Science Direct, amongst other reputable databases in the field of Social Sciences nor Humanities.’ The conducted searches were restricted from 1901-2023 [Not in sequence], focusing on inclusion and exclusion criteria and the use of keywords to arrive to 41 selected notable studies. The inclusion criteria were articles published in accredited academic journals articles, Dissertations, Thesis, government publications, official reports, online Newspapers, published books, and book chapter. For the exclusion, all reviewed publications which were not published by sought-after media houses and published in peer-reviewed accredited publications were omitted to ensure the trustworthiness of the reviewed data. Importantly, the keywords extracted from the research topic were used as guidelines for this review and the researchers did not specify which research approach or the country of the cited published research works to get a wider range of relevant information on this subject.

2.3 Study selection

Apart from the above-mentioned study inclusion and exclusion criteria, the researchers had to ensure that they select relevant publications on this subject, to form part of this review, while adopting the PRISMA (Refer Figure 1).

2.4 Data charting and summarising

The researchers relied on data charting to extract the selected data from the PRISMA (Refer to Table 1). Data charting looked at the responsible authors, years of publication, title of publications topic, adopted methodology or type of publications and findings. The collected data were summarised using the PRISMA to ensure trustworthiness of findings of this review.

Table 1: Data charting and summarising

| Author(s) | Year | Title of publications | Adopted methodology or type of publications | Findings |
|-----------|------|--|--|---|
| Singh, K | 2022 | The Cellular Geographic Footprint: A forensic investigation tool for tracing the patterns of activities of rhino poachers from Mpumalanga and Winterveld to Hluhluwe-iMfolozi Park | Masters Dissertation: Criminology, Qualitative study | Based on the findings of this study, it was asserted that rhino poachers develop their own <i>MO</i> and movement patterns when planning to execute a crime. Cell phone data records are recommended to be combined with other types of policing, creating a well-rounded mitigating measure against rhino poaching, in so doing producing well informed planned decisions for the perceived path of an investigation or operation. |
| Jakins, C | 2018 | The <i>MO</i> of rhino poachers in KwaZulu-Natal, South Africa | Masters Dissertation: Criminology, Qualitative study | The primary motive for rhino poaching was found to be financial, as individuals living in extreme poverty in KZN are often recruited by organised criminal syndicates operating outside the province and paid to poach rhinos for their horns. The <i>MO</i> was found to be simple and consistent with that of rhino poachers operating elsewhere in South Africa. |

| Author(s) | Year | Title of publications | Adopted methodology or type of publications | Findings |
|-------------------|------|--|---|---|
| Bergover, S | 2018 | Regulating the trade in rhino horn: A South African perspective | Masters Dissertation: Environmental Law, Qualitative 'Desktop' research | South Africa is facing a major rhino poaching crisis. South Africa can currently sustain this rate of poaching because of rhino population growth rate (Approximately 6.5% for white rhino and 5% for black rhino) is higher than the off take (Legal and illegal), but if poaching continues to escalate, a tipping point may eventually be reached forcing the population to decline for the first time in 50-100 years. The driver for the illegal killing is a persistent demand for rhino horn from Asia, where it is used mainly for medicinal purposes. This demand cannot be met by legal supplies because international trade in rhino horn was banned by CITES in 1977 in response to long-term, high levels of rhino poaching that were threatening to push all rhino species to extinction. |
| Okori, J | 2020 | African rhinos: Worldwide Fund (WWF) for Nature | Internet source (WWF) | Rhino poaching is ever increasing, with relevant stakeholders actively fighting against it daily, they want to stay ahead of the novel and sophisticated poaching groups in South Africa |
| Wildlife Campaign | 2021 | Room for improvement: Using DNA analysis to address rhino horn trafficking | Internet source (Environmental Investigation Agency - EIA) | <p>The South African operations of using rhino horn samples received from other countries fostered the local SAPS to make commendable decisions of enhancing its partnership with RhoDIS. The EIA emphasises the adoption of rhino DNA evidence to support stockpiled and rhino horn trafficking/leaking investigations, resulting in any subsequent prosecutions and convictions.</p> <p>The effectiveness of RhoDIS and DNA analysis depends on existing database used by other public and private LEAs in general and the SAPS specifically. These agencies have good track records of using rhino horn DNA analysis to solve the reported cases, involving rhino poaching. Through the use of DNA analysis to solve rhino poaching, the transparency of the involved agencies, including the National governmental are responsible for identifying rhino horn movements and related operations, such as dehorning, stockpiling, ownership by a government entity or a private citizen, legal, illegal and smuggling events in a local, regional, National, African and global scales. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), regulating 'international trade in wildlife,' urges all stakeholders across the world to collect DNA evidence samples of the seized rhino horns for forensic analysis.</p> |
| Harper, C | [Sa] | RhoDIS DNA profiling and a DNA database as a tool to protect the rhino | Internet source (Rhino Resource Centre) | The RhoDIS is the maintainable central standard which secures single database of rhinoceros DNA profiles for forensic analysis and the DNA profiling test for Black and White rhinoceros for Black and White. The database is pioneered by the UP VGL, containing thousands of DNA samples from the rhinos located across Africa. The DNA is extracted from couple grams of powdered rhino horn and successfully matched with a sample recorded in the RhoDIS [Cited as the ground-breaking technique in Southern Africa]. If a match is made, it can link the seized rhino horn to the potential criminals (Poachers and traffickers). From a rhinos poached at a specific location (Crime scene) or a horn taken from a specific stockpile, an airtight evidence can be provided to support prosecutions and provide key data to |

| Author(s) | Year | Title of publications | Adopted methodology or type of publications | Findings |
|----------------|------|--|---|---|
| | | | | <p>better understand important features of rhino poaching, as well as rhino horn trafficking trends. Overall, the RhoDIS DNA profiling and a DNA database are innovative tool to protect rhinos from poaching. The rhino DNA cannot be removed, changed, or destroyed, it can be compared to primary Microchips, which its 'Identification [ID]' with DNA is used as a confirmatory ID and cannot be changed or destroyed.</p> <p>The year 2012 witnessed the South African National Government passing a legislation stressing that all captured rhinos and horns should be sampled and sent to the UP VGL to be included in the-stated database. As a result, the submitted DNA evidence of all the sampled and profiled poaching cases led to convictions of several local and foreign poachers, as well as agents working in collusion.</p> |
| Save the Rhino | 2023 | The latest poaching numbers from South Africa | Internet source (Save the Rhino) | Historically, rhino poaching crisis in South African reportedly started in 2008, with many rhino targeted and killed for their Horns across Africa. In 2015, a peak of 1,349 was recorded. Worryingly, at least One (01) rhino is still allegedly killed every day, in every 20 hours; there is an urgent call for more actions against this scourge. Majority of rhinos populations are found in South Africa, and it is the hardest hit country by potential criminals, with more than 1,000 rhinos killed yearly between 2013 and 2017, with the situation getting very worse (2022), a reference is made in Figure 2: Poached rhinos from 2006-2022. |
| Modise, A | 2023 | Relentless pressure forces rhino poachers to abandon national parks in 2022, says Creecy | Governmental publication – DFFE and DEA | <p>The year 2022 recorded about 124 killed rhinos in the Kruger National Park, representing approximately 40% decrease in reference to the ones killed for their Horns in 2021, with KwaZulu-Natal Province losing about 244 rhinos in 2021, from this number, 228 rhinos were killed in the 'Provincial Parks' and the other 16 in the privately owned Game Reserves and the <i>Hluhluwe iMfolozi</i> Park was targeted.</p> <p>The private rhino owners lost 86 rhinos across South Africa and the number of killed rhinos in 2022 represents a slight decline of 3%, compared to the 451 rhinos poached in South Africa in 2021.</p> |
| Zerbst, F | 2018 | Rhino DNA Index System | Internet source (RhoDIS) | <p>The 2023 statistics show that 01 rhino is killed every 30 hours in South Africa. The rhino horn is regarded as the essential ingredient for traditional Chinese medicine for centuries, despite been repeatedly proven to be of no use to anyone except the original owner.</p> <p>The rhino horns are made of Keratin, the same type of protein making hair and fingernails. Therefore, the RhoDIS is the first DNA database to match seized rhino horns with 'Carcasses from National Parks, Game Reserves, Game Farms and Zoos. It is used to prove that a potential criminal to be caught with a Rhino horn or involved in killing it. The RhoDIS was first used in 2010 for a rhino poaching case, this was when a Vietnamese citizen was sentenced to 10 years for attempting to smuggle rhino horns through the Oliver Reginald Tambo [OR] Tambo International Airport. This sentence was unheard of then, and it was positively linked to the DNA typing result. The rhinoceros owners</p> |

| Author(s) | Year | Title of publications | Adopted methodology or type of publications | Findings |
|-----------------------------|------|---|--|--|
| | | | | collect samples of both live rhinos and horns (Or parts of horn) for DNA analysis to be performed by the UP VGL and create a database to be used to link seized rhinoceros' horn and items containing horn or blood evidence to specific rhinoceros' carcasses, this is done to provide forensic support in rhinoceros criminal cases. |
| Bega, S | 2023 | Rhino poaching declines in Kruger, but poachers are on the rampage in KZN | Online Newspaper - Mail and Guardian | <p>A total of 132 arrests were made during 2022 for rhino poaching, 23 in the <i>Skukuza</i> area in Mpumalanga (MP) Province, 49 in KwaZulu-Natal (KZN) Province and the balance in Limpopo Province. The recent focus on money laundering and international cooperation with other law enforcement authorities saw the arrest of 26 rhino horn traffickers and 13 people for money laundering and bribing of rangers.</p> <p>The DFFE, inducted 'Environmental Enforcement Fusion Centre (EEFC)' which enables responsible agencies to track information pertaining to wildlife crime at a national level and understand trends and changing <i>MO</i>, while supporting the investigative and tactical teams. During 2022, the National Prosecuting Authority (NPA), in collaboration with the DFFE, established a Director of Public Prosecutions environmental working group with the purpose of fostering closer collaboration between the provinces working on wildlife trafficking cases and help identify repeat offenders moving around the country, as depicted in Figure 3: Rhino poaching in South Africa: Annual projections from 2020-2022.</p> |
| Van der Walt, M | 2015 | The preliminary investigation phase | Chapter in a book | The reference samples concerning disputed samples can be used for comparisons and should be obtained from rhino poaching scenes. To this end, the reference sample refers to a sample of a known origin, to be used for identification of the origin of the disputed sample. |
| Maluleke, W | 2016 | The use of Deoxyribonucleic Acid in combating stock theft in South Africa | Doctoral Thesis in Policing, Qualitative study | The rhino hair (Or any other DNA evidence) found at rhino poaching scenes/stock theft scenes/endangered species scenes is collected as evidence (Disputed sample), to be compared to the hair of a rhino. This calls for DNA evidence to act as a reference sample to display matching relationship or a link to the samples of rhino poaching scenes. The biological samples are taken to build DNA profiles. This act as a representative portion of a known sample in the laboratory (UP VGL in this regard). The collected samples are kept in a file or laboratory as typical exemplars of rhino DNA. Importantly, transient evidence should be avoided at all costs; hair, blood, intestines can become degraded and contaminated, as evidence of this nature loses its value, unless it is collected quickly. Therefore, the use of standard samples obtained in a laboratory for comparison to evidence similar to a known sample, such as sources of DNA found in rhino poaching scenes, cannot be achieved without the use of the reference samples in the laboratory. |
| University of Pretoria (UP) | [Sa] | RhoDIS® and eRhoDIS®: The rhinoceros DNA project | Internet source (UP) | The 'match recovered horn, to individual rhinos and poached rhinos' can be positively used to link poachers, traffickers, horn from consumer countries, as well as identifying individual stockpiled horns. This system could become the standard for producing DNA profiles to be analysed and compared in a global database. |

| Author(s) | Year | Title of publications | Adopted methodology or type of publications | Findings |
|---------------------------|------|--|--|--|
| Cheung, J | 1996 | Implementation and enforcement of CITES: An assessment of tiger and rhinoceros' conservation in Asia | Accredited journal article (<i>Pacific Rim Law and Policy Journal</i>) | The RhoDIS stores the DNA, using it as the reference of unique genetic 'fingerprint' of every sampled rhino or horn, enabling SAPS investigators and other LEAs to link poachers to crime scenes, in instances when a rhino is harmed or horn is confiscated, along with other evidence. This system is regarded to be similar to human DNA database used by the local SAPS and the American Combined DNA Indexing System (CODIS). |
| Milliken, T & Shaw, J | 2012 | The South Africa - Viet Nam rhino horn trade nexus: A deadly combination of institutional lapses, corrupt wildlife industry professionals and Asian crime syndicates | Internet source (WWF) | If recognised and used as the universal database for holding rhino DNA samples, it could become a very powerful forensic tool for rhino horn management, monitoring and law enforcement. This technology conclusively result in convictions by matching rhino horns to specific rhino crime incidents and scenes. |
| Kappeler, VE & Gaines, LK | 2009 | Community policing: A Contemporary perspective | Published book | <p>A combination of forensic analysis, ILP investigations, international co-operations, and a commitment of transparency is required. This could inform policy of the SAPS and other LEAs decisions to effectively respond to the dynamics of <i>MO</i> of rhino horn traffickers. The rhino poachers are organised and well-trained criminals, using advanced methods and high-powered weapons to achieve their criminal purpose and they are way ahead of SAPS and other LEAs strategies.</p> <p>The local SAPS and LEAs, aided by other public (Offering community policing) and private LEAs patrols to National parks remain very essential to enhance visible policing, as Rangers with the current capacity are unable to cover the entire spectrum. The patrolling patterns can be accomplished in various ways, including 'foot patrol, vehicle and aerial patrol, amongst others. Although aerial patrol might be a more appropriate method to address poaching of rhinos, the method is costly and applied very seldom. The Endangered Species Protection Unit (ESPU) is also playing a major role player in dealing with rhino poaching.</p> |
| Smillie, S | 2015 | Rhino face trained squad | Internet source, online Newspaper (TimesLive) | The use of microchip as technique to detect rhino horn is another method to allow the SAPS and LEAs to arrest potential perpetrators of rhino poaching found in possession of horns during roadblocks. Electric fencing is one of the mechanisms to prevent and control access to National Parks. Therefore, future research studies should extend research on the use of RhoDIS to respond to rhino poaching and related crimes, and the use of other technologies focusing on crime [Rhino poaching] mapping and Geographic Information System (GIS), focusing on 'cell phone data records with other syndicate networks, demographic groups and within different geographical nodes. |

Source: Researcher's illustrations (2023)

Furthermore, to portray the nature and extent of rhino poaching in South Africa, Figure 2 shows that in 2022, about 448 rhinos were killed in South Africa and a decrease of 3% compared to 2021, as 2021 reflected an increase of rhino poaching incidences in South Africa for the first time in six (06) years. However, the lifting of Coronavirus-diseases-2019 (COVID-19) restrictions enabled criminal syndicates for rhino poaching to start seizing different opportunities to kill rhinos again,

causing this crime to increase by 13%, since 2020. The poaching gangs are currently (2023) shifting their focus away from large National Parks, like Kruger National Park, as poaching declined there in recent years, they are now focusing on smaller provincial parks, citing the previously mentioned *Hluhluwe-iMfolozi* Park in KZN Province as a model, Save the Rhino (2023).

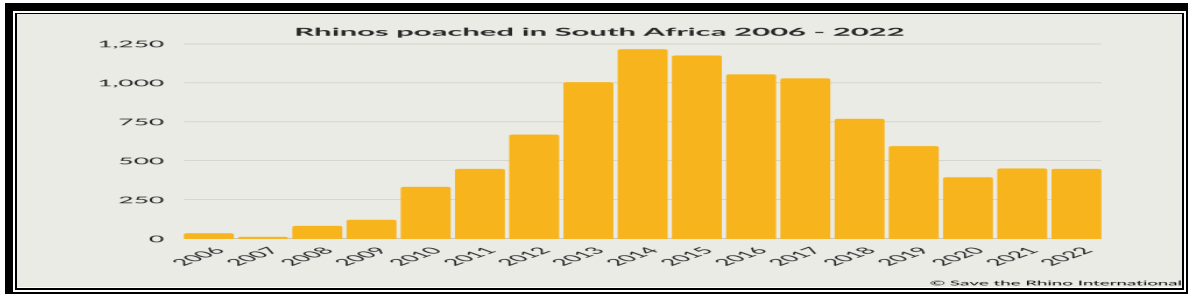


Figure 2: Poached rhinos from 2006-2022

Source: Save the Rhino (2023).

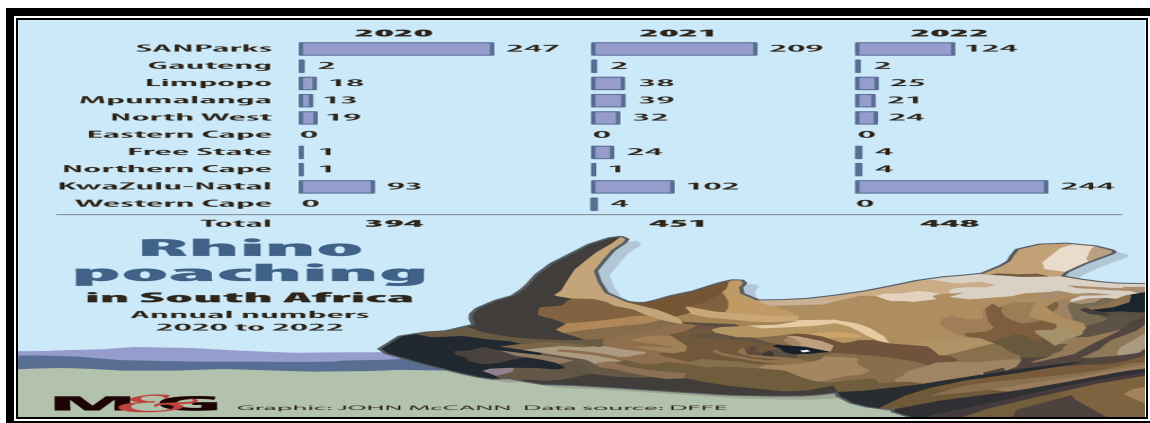


Figure 3: Rhino poaching in South Africa: Annual projections from 2020-2022

Source: Bega (2023)

Additionally, figure 3 shows provincial distributions of rhino poaching across South Africa. To paint a ghastly picture of this ever-manifesting crime, the provided statistics reflect that of the 448 rhinos killed for their horns last year, 124 were in the Kruger, representing a 40% decrease compared with those killed in 2021. No rhinos were poached in any other National parks. Overall, the statistics revealed a slight decline in rhino poaching losses from 451 in 2021 to 448 in 2022. The toll for private rhino owners, meanwhile, was 86 rhinos countrywide (Bega, 2023).

3. METHODOLOGY

This scoping review [Also regarded as the non-empirical research design: Systematic review] explored the aid of RhoDIS to combat rhino poaching by closely looking at South African experiences (Dan, 2017, and Maluleke, 2020). The key concepts stemming from the topic of this

review were used, with the main sources on this subject largely considered. It is provided that the relevant sources to a particular subject can be used as stand-alone study project, more especially in complex research areas or research subject comprehensively reviewed in the past (Mays, Roberts & Popay, 2001). This paper is employed to identify, evaluate and summarise the findings of this review, focusing on reviewed literature studies to making available evidence more accessible to decision-makers, by offering suitable recommendations (Bwanga, 2020). Furthermore, to develop understanding and obtain relevant information on this subject, the collected data stemmed from relevant databases, such as ‘Google, Google Scholar, EbcoHost, Emerald Insight, Jstor, Internet sources, ProQuest, Sabinet, Sage Online and Science Direct,’ were visited using the non-probability: purposive sampling, while restricting the collected data to 1901-2023, resulting in search results, not in order of importance and sequence, Maluleke (2020) and; Mokwena and Maluleke (2020). To achieve the exclusion and exclusion criteria of this study, a total of 592 749 articles were retrieved from the selected databases [749] and internet sources [592 000]. However, only 41 studies, involving, journal articles, Newspapers, governmental and official reports, chapter in a book, books, Dissertation and Thesis, as well as the internet sources were used.

In addition, the researchers opted for scoping review because the issue of using RhoDIS to combat rhino poaching in South Africa is not a new phenomenon and plethora of literature studies exist on this subject. This review was guided by the ‘Arksey and O’Malley (2005) proposed a framework on processes for conducting scoping reviews’ consisting of Five (05) stages; namely, **1) Identifying the research question, 2) Identifying the relevant studies, 3) Study selection, 4) Data charting, and 5) Summarising data.** This framework was deemed relevant for conducting this scoping review and stage 4 and 5 were combined thereof. The PRISMA was employed to ensure trustworthiness of the study findings, relating to raised research questions of this review.

4. STUDY FINDINGS AND DISCUSSIONS

Emanating from the introduction, identified relevant literature studies on this subject (*The aid of RhoDIS to combat rhino poaching: A scoping review of South African experiences*), Table 1 and 2 sections of this review, the study findings and discussions reveal the following aspects:

4.1 The nature and extent of Rhino poaching in South Africa: The induction of Rhino Deoxyribonucleic Acid Index System

The rapid escalation of rhino poaching in South Africa has evidently sparked lot of concerns in international platform for many reasons. While hunters (Either illegal or legal) in the past mainly ‘killed for the pot’, the killing of one rhino for at least less than a quarter of its entire carcass is not meant for human consumption. Thus, many rhinoceros are killed for lucrative horns, which are economically in need by the Asian market. The escalating rhino poaching is driven by a huge demand for its horn in the East Asia, Yemen, China, Taiwan, Japan and Singapore (Choudhury [sa]). Ivory tusks and rhino horn markets exist for two primary uses, namely: to make ornament dagger handles and to serve as ingredients for traditional pharmaceutical remedies used to cure colds, fevers, and related disease (Rolfes, 1994). Although it is claimed extensively that rhino horns are used as an aphrodisiac and thus causing the demise of these animals, this claim remains a myth

(Cheung, 1996; and Oldfield, 2003). In addition, South Africa is recorded as conserving some 70 to 80 per cent of the global rhino population (Du Bois, 1997). The recent statistical data indicate that the Kruger National Park remains the hardest hit by rhino poachers, in reference to Figure 2 and 3 of this review.

Moreover, few reasons exist for an escalating rhino poaching in South Africa. The answer lies, in the earlier connection between the Chinese organised crime syndicates (The Triad and the Yakuza) operating illegally in South Africa for decades. In the 1990s, the rise in the value of abalone attracted the interest of drug gangs in the Cape. These organised criminals have already established themselves and their criminal networks are ready for any lucrative markets. As a result, when the rhino horn market opened between Southern African countries and the East Asia, they made full use of lax enforcement efforts experienced overtime in other markets. On the other hand, and often the most ignored reason for poaching, until the escalating rates of elephant and the recent high rhino poaching statistics, South Africa claimed the world's first, second and third largest land mammals such as elephant, white rhinos and hippopotamus respectively (Reid & Steyn, 1990). Overall, the importance of using and developing forensic tools to meet the requirements of investigations into rhino poaching and related crimes remains essential. Based on the findings of the research conducted, it can be asserted that rhino poachers, like other types of sophisticated groups do develop their own cognitive maps, rational actions, routine activities, and *MO* when planning to commit this crime.

4.2 The nexus between selective Anti-Rhino poaching strategies and Rhino Deoxyribonucleic Acid Index System in South Africa

While considering the use of RhoDIS for combating Rhino poaching, South Africa also prides itself with some of the internationally acclaimed wildlife conservation structures. For instance, the Kruger National Park, considered by many as the premium unit of South African national parks is the second oldest national park in Africa and boasts more species of wildlife than are found in any other African game sanctuary including, among many others, both white and black rhinoceros (Reid & Steyn, 1990). Legalbrief Environment (2015) and Timeslive (2015) cite that private rhino breeders are in legal battle forcing the government to lift the moratorium on domestic rhino trade. Legalbrief Today (2015) shares that Game Reserve owners and rhino breeders argue and maintain that harvesting rhino horns at their ranches and selling it legally will drive poachers out of business. According to the breeders, their methods of dehorning are quick and painless.

Further, it is believed that the 'Animals' horns are traded for their use in traditional Asian medicines and this crime is soaring, based on the beliefs that a former politician in Vietnam was cured of cancer using the rhino horn remedy (Davis, 2018). The rhino horns and powders made from grinding down the horns and are illegally sold across the globe as trophies and fake medicines (Scutti, 2018). The market growth demands for rhino horn is threatened, outpacing potential rates of supply; thus, the market prices continue to rise. This attracts entrepreneur's attentions of rhino horn trade. However, the rising prices could possibly induce speculative buying and stockpiling. This inevitably leads to more rhino poaching incidences. The root causes of this problem, coupled

with the increasing demands and illegal supplies is given less attention by relevant stakeholders, further leading to escalations of rhino poaching. Moreover, various strategies and methods are in place to help in combating this crime, but ineffective (De Beer, 2016). Negatively, once responsible LEAs in South Africa obtains the DNA samples, it is still unclear how the DNA analysis is performed to advance combating, investigations, and prevention of rhino poaching, as well as identifying if any subsequent prosecutions have resulted. From the 'Biannual update on efforts to combat rhino poaching in South Africa,' the DFFE, working closely with local SAPS to address this crime, fails to report how DNA from the rhino the seized horn from abroad were used to inform ILP investigations into some of the identified criminal networks funding poaching and controlling trades of rhino horn or to determine whether any of such investigations are resulting into prosecutions.

5. CONCLUSION

This paper aimed to present the nature and extent of rhino poaching in South Africa to induct the RhoDIS and its positive usage for combating this crime and to create a nexus between selective anti-rhino poaching strategies and this system in South Africa. The conclusion of this review offers that the participation of the local SAPS to combat poaching of rhino horn, as well as ivory tusks trafficking is escalating in South Africa. It is concluded that the planned operations and investigations are yielding less results. The existing SAPS collaborations with relevant stakeholders is very important, as it can ultimately address the networks of committing this crime. However, it seems as the local SAPS have minimum involvement in the combating, investigations and prevention of rhino poaching, as private LEAs are heavily used to respond to this scourge. Therefore, tracking system approach involving the SAPS and other private LEAs is highly recommended by this review. Efficient investigations and severe sentencing of potential rhino poachers can possibly close down operations of potential syndicates, as local poor poachers can be excessively dealt with by the Criminal Justice System (CJS), by tracing the main rhino poaching syndicates. Moreover, the legislative frameworks need proper implementations by the local SAPS and other LEAs using proper strategies and plans. Importantly, while recommendations can be offered and implemented, the envisaged effectiveness can be tested with minimised rates of reported rhino poaching incidences.

REFERENCES

- Arksey, H., and O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*. 8:19-32. DOI: 10.1080/1364557032000119616.
- Bega, S. (2023). Rhino poaching declines in Kruger, but poachers are on the rampage in KZN. February 08, *Mail & Guardian*. Retrieved from: [https://mg.co.za/environment/2023-02-08-rhino-poaching-declines-in-kruger-but-poachers-are-on-the-rampage-in- ...](https://mg.co.za/environment/2023-02-08-rhino-poaching-declines-in-kruger-but-poachers-are-on-the-rampage-in-...)
- Bergover, S. 2018. *Regulating the trade in rhino horn: A South African perspective*. Unpublished Masters Dissertation: Environmental Law. Glenwood: University of KwaZulu-Natal.

Bwanga, O. (2020). How to conduct a qualitative systematic review to guide evidence-based practice in Radiography? *International Journal of Sciences: Basic and Applied Research*, 52 (1):205-213.

Carruthers, J. (2008). Conservation and Wildlife Management in South African National Parks 1930s-1960s. *Journal of the History of Biology*, 41 (2), 203-236.

Cheteni, P. (2014). An analysis of anti-poaching techniques in Africa: A case of rhino poaching. *Environmental Economics*, 5(3), 63-70.

Cheung, J. (1996). Implementation and enforcement of CITES: An assessment of tiger and rhinoceros conservation in Asia. *Pacific Rim Law and Policy Journal*, 5 (1), 125-159.

Choudhury, A. (sa). *Poaching threatens rhino and elephant*. Retrieved from: http://www.rhinosourcecenter.com/pdf_files/133/1333710447.pdf.

Convention on International Trade in Endangered Species of Wild Fauna and Flora [Online]. (2021). Retrieved from: https://cites.org/eng/news/pr/2012/20120613_rhino_project.php.

Dan, V. (2017). *Empirical and non-empirical methods*. Retrieved from: https://www.ls1.ifkw.uni-muenchen.de/personen/wiss_ma/dan_viorela/.

Davis, N. (2018). *Rhinoceros DNA database successful in aiding poaching prosecutions*. Retrieved from: <https://www.theguardian.com/science/2018/jan/08/rhinoceros-dna-database-successful-in-aiding-poaching-prosecutions>.

De Beer, W. (2016). *The viability of legalising international trade in rhino horn and the possible effect on rhino poaching in South Africa*. Unpublished Doctor of Philosophy: Environmental Management Thesis. University of South Africa: Muckleneuk Ridge, Pretoria.

Du Bois, KE. (1997). The illegal trade in endangered species. *African Security Review*, 6(1), 28-41.

Duffy, R. (2010). *Nature Crime: How We are getting Conservation Wrong*. New Haven and London: Yale University Press.

Harper, C. (sa). *RhoDIS DNA profiling and a DNA database as a tool to protect the Rhino*. Retrieved from: http://www.rhinosourcecenter.com/pdf_files/132/1321657369.pdf.

Jakins, C. (2018). *The Modus Operandi of rhino poachers in KwaZulu-Natal, South Africa*. Unpublished Masters Dissertation: Criminology. Glenwood: University of KwaZulu-Natal.

Legalbrief Environmental [Online]. (2015). *Rhino poaching suspects in court*. Retrieved from: <http://www.legalbrief.co.za>.

Legalbrief Today [Online]. (2015). *Rhino battle to be heard this week*. Retrieved from: <http://www.legalbrief.co.za>.

Kappeler, VE., and Gaines, L K. (2009). *Community policing: A contemporary perspective*. 5th edition. United States of America: Anderson Publishing.

-
- Mail and Guardian [Online]*. (2016). The RhoDIS rhino DNA database is putting rhino poachers in the cross hairs. Retrieved from: <https://mg.co.za/article/2016-07-15-the-RhoDIS-rhino-dna-database-is-putting-rhino-poachers-in-the-cross-hairs/>.
- Maluleke K, Musekiwa A, Kgarosi K, Gregor EM, Dlangalala T, Nkambule S., and Mashamba-Thompson T. (2021). A Scoping Review of Supply Chain Management Systems for Point of Care Diagnostic Services: Optimising COVID-19 Testing Capacity in Resource-Limited Settings. *Diagnostics (Basel)*, 8, 11 (12):2299. DOI: 10.3390/diagnostics11122299.
- Maluleke, W. (2020). The African scare of Fall Armyworm: Are South African farmers immune? *International Journal of Social Sciences and Humanity Studies*, 12 (1), 207-221.
- Mays, N., Roberts, E., and Popay, J. (2001). Synthesising research evidence. In N. Fulop, P. Allen, A. Clarke, & N. Black (Eds.), *Studying the organisation and delivery of health services: Research methods*. London: Routledge.
- Milliken, T., and Shaw, J. (2012). *The South Africa - Viet Nam Rhino horn trade nexus: A deadly combination of institutional lapses, corrupt wildlife industry professionals and Asian crime syndicates*. Retrieved from: https://www.traffic.org/site/assets/files/2662/south_africa_vietnam_rhino_horn_nexus.pdf.
- Modise, A. (2023). *Relentless pressure forces rhino poachers to abandon national parks in 2022, says Creecy*. Pretoria: Department of Forestry, Fisheries, and the Environment.
- Mokwena, RJ & Maluleke, W. (2020). South African rural communities and the land restitution process: The application of criminological and legal theories in identifying obstacles to rightful allocations of land. *Gender and Behaviour Journal*, 18(3), 16145-16156.
- Muka, T., Glisic, M., Milic, J., Verhoog, S., Bohlius, J., Bramer, W., Chowdhury, R., and Franco, O.H. (2020). A 24-step guide on how to design, conduct, and successfully publish a systematic review and meta-analysis in medical research. *European journal of Epidemiology*, 35, 49-60.
- Oldfield, S. (2003). *The trade in wildlife: Regulation for conservation*. London: Earthscan Publication Ltd.
- Okori, J. (2020). *African rhinos: World Wide Fund for Nature*. Retrieved from: https://wwf.panda.org/knowledge_hub/endangered_species/rhinoceros/african_rhinos/
- Reid, LM., and Steyn, JN. (1990). South Africa: In: *International Handbook of National Parks and Game Reserves* Edited by Craig WA. London: Greenwood Press. Pp 337-373.
- Rolfes, M. (1994). Trade in species: Is it an option. *Economic Affairs*, 14(3), 10-12.
- Save the Rhino. (2023). *The latest poaching numbers from South Africa*. Retrieved from: <https://www.savetherhino.org/rhino-info/poaching-stats/>.
- Scutti, S. (2018). Rhinoceros DNA database helps nail poachers and traffickers. January 10, *Cable News Network (CNN)*. Retrieved from: <https://edition.cnn.com/2018/01/10/health/rhino-dna-database-poachers-traffickers-study-intl/index.html>.
- Smillie, S. (2015). Rhino face trained squads. June 08, *Timeslive*. Retrieved from: <http://www.timeslive.co.za/thetimes/2015/06/08/Rhino-face-trained-squads#>.
-

Smit & Van Wyk [Online]. (2023). RhoDIS - Rhino DNA Index System. Retrieved from: <https://www.svw.co.za/RhoDIS-rhino-dna-index-system/> 2023.

Singh, K. (2022). *The Cellular Geographic Footprint: A forensic investigation tool for tracing the patterns of activities of rhino poachers from Mpumalanga and Winterveld to Hluhluwe-iMfolozi Park*. Unpublished Masters Dissertation: Criminology. Glenwood: University of KwaZuli-Natal.

Turner, G J. (1901). *Select pleas of the forest*. London: Seldon Society.

University of Pretoria. (sa). *RhoDIS® and eRhoDIS®: The Rhinoceros DNA project*. Retrieved from: [https://www.up.ac.za/media/shared/678/ZP_Files/One%20pagers/RhoDIS ...](https://www.up.ac.za/media/shared/678/ZP_Files/One%20pagers/RhoDIS...)

Wildlife Campaign. (2021). Room for improvement: Using DNA analysis to address Rhino horn trafficking. September 22, *Environmental Investigation Agency*. Retrieved from: <https://us.eia.org/blog/20210922-room-for-improvement-blog/>.

Van der Walt, M. (2015). The preliminary investigation phase. In: RJ. Zinn & S. Dintwe (Eds.), *Forensic Investigation: Legislative principles and investigative practice*. Cape Town: Juta.

Zerbst, F. (2018). *Rhino DNA Index System*. Retrieved from: <https://www.rhinoalive.com/wp-content/uploads/2018/03/Rhino-files-SP.pdf>.

SSIRC 2023-020**RISK MANAGEMENT TECHNIQUES ON BUSINESS PERFORMANCE IN THE MANUFACTURING INDUSTRY OF SOUTH AFRICA****M.M.K. Mogano**

Vaal University of Technology, South Africa

E. Chinomona

Vaal University of Technology, South Africa

ABSTRACT

It is apparent that for manufacturing companies to succeed, it is crucial to consider the factors that will contribute positively to the performance of the business. The issues related to production planning, first to market and production scheduling on business performance have been neglected. Product planning, production scheduling and first to market can be adopted as factors manufacturing companies could consider improving their business performance. There has been little research done to prove that production planning, first to market and production scheduling can lead to improving the overall business performance of the manufacturing industry. Therefore, this study seeks to fill this lacuna by investigating the influence of production planning, production scheduling, and first to market on business performance in manufacturing industries. A quantitative approach was adopted for this study, and a questionnaire was distributed physically and electronically. Three hundred and six (306) respondents participated in the study. Data obtained were analysed using SPSS 28.0 and AMOS 28.0. The results of the study proved that production planning, first to market and production scheduling have a positive impact on business performance. Production scheduling and first to market proved to have very significant and positive relationships with business performance. First to market, production planning and scheduling have proved to deliver a competitive advantage and improved customer satisfaction in the manufacturing industry.

KEYWORDS: Production planning, Production scheduling, First to market, Business performance, Manufacturing industry.

1. INTRODUCTION

Several factors have been identified and applied as determinants of firm performance (Wang & Zheng, 2013; Altendorfer, 2015). The issues related to production planning have been neglected. Production planning is equally important as it is the core function in the manufacturing environment. Product scheduling and first to market can be adopted as factors manufacturing companies could consider improving their business performance (Wu, Yin & Cheng, 2013). Arguably, although little research has been done to prove that production scheduling, and first to market influence the performance of a business, little has been done to demonstrate that production planning, scheduling and first to market can be adopted by a manufacturing company as strategic risk management techniques to oversee operations and the advantages that come with it. There has been little research done to prove the benefits of production planning, production scheduling and

first to market for the organisation, as well as how to improve the overall business performance. Therefore, this study seeks to fill this lacuna by investigating the influence of production planning, production scheduling and first to market on business performance in manufacturing industries. It has been observed that problems with some manufacturing industries in the country seem to be a lack of skills set to carry out activities such as production planning. There seems to be a lack of understanding of what production planning is with regards to how to use it to the advantage of the organisation and how to use this strategy to counter future production issues which may occur, such as late deliveries and poor-quality products.

CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

This model consists of three predictor variables which are production planning, production scheduling, first to market and business performance as the outcome variable.

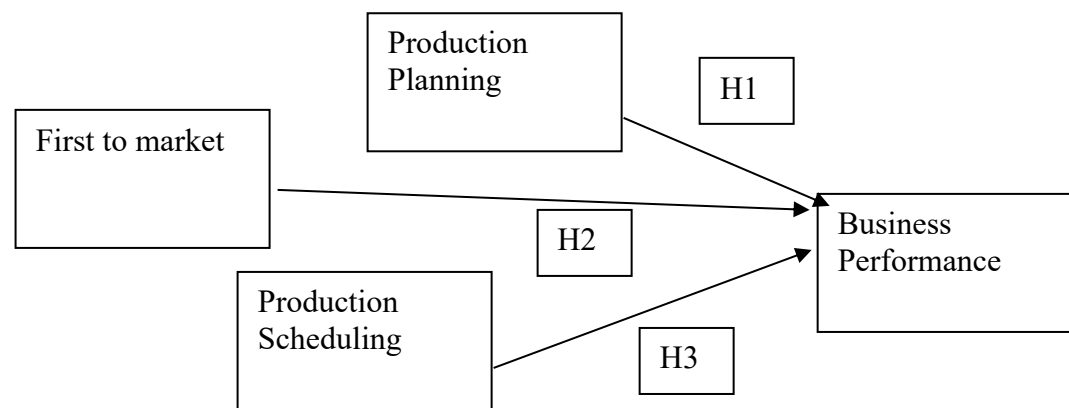


Figure 1: Conceptual Framework

H1: Production planning positively influences business performance within the manufacturing industry.

H2: There is a positive relationship between first to market and business performance.

H3: There is a positive relationship between production scheduling and business performance.

2 LITERATURE REVIEW

The theory applies to this study, and the explanation of constructs is done under the literature review.

2.1 Production Theory

Production theory was introduced by Cobb and Douglas (1928). Production theory is the study of production or the economic process of converting inputs into outputs. The progressive refinement during the years in the measurement of the volume of physical production in manufacturing companies suggests the possibility of the following: firstly, to measure the changes in the amount of labour and capital, which have been used to turn out this volume of goods and secondly, to

determine what relationships exist between the three factors of labour, capital, and product. It is important to understand that the production theory is at the heart of business operations and discussions regarding economic organisations in manufacturing processes (Fandel, 1985). In 1928, Cob and Douglas developed a neoclassic production function which they referred to as the C-D production. The function was tested empirically by various authors and showed positive results (Fandel, 1985). Krugman (1995) and Lawrence and Slaughter (1993) argued that, based on the research they had done, the relationship between production planning and business performance is either positive or negative. Production uses resources to create a product or service that is suitable for use, gift-giving in a gift economy or exchange in a market economy (Nikolic, Ignjatic, Suzic, Stevanov & Rikalovic, 2017). This can include manufacturing, construction, storing, shipping and packaging. Some economists define production broadly as all economic activities other than consumption. The theory of production acts as an economic method used by manufacturing organisations to determine how much of the products should be produced as well as how much of each of the raw materials will be acquired to meet the production requirements.

2.2 Production Planning

Production planning correlates with complexities in production. It has subsets that consist of process planning and machinery capacity, delivery lead time and layout (Takahashin, Onosato & Tanaka, 2015). Production planning is a process that links together the performance of functions, such as job size, machine load and requested delivery as one process (Sharma & Balodiya, 2013). The main concerns of production planning are to produce defect free products and to satisfy customers by delivering jobs on time. The production planning process uses a material requisition plan, along with job size, safety stock and planned lead time (Altendorfer, 2015). The principles of productive relations that correlate between production factors and products or goods can positively assist with the vital task of production planning if these factors are cleared up from the grounds of production considerations. The main objective of production planning is to draw the gross requirement of the manufacturing facility and transform this into production orders and material purchases using methods such as EOQ (Economic Order Quantity) and MRP (Material Requirement Plan). These methods can determine the expected lead time (Plenert, 1993). The process of production planning identifies activities that need to be performed for the manufacturing plant to efficiently execute the production plan, namely identifying the production programme, selecting the production procedure, and identifying the potential productivity of the manufacturing plant, as well as understanding process planning (Dantzig, 1951).

A manufacturing plant usually produces a variety of products to satisfy a certain demand, depending on the target market. This encourages organisations to determine which product to produce by putting together the production factors at hand. The organisation must decide on the product type as well as the required quantities to make good profits for the established planning period (Fandel, 1985). Poor production planning consequently results in poor business performance within the manufacturing industry (Gomez, Lanzolla & Maicas, 2016.). Firm and production strategies must conform to one another and reflect the performance and environment of the firm (Vranakis & Chatzoglou, 2014). Theoretically, manufacturing firms are expected to adopt best practices directly

related to production planning. These often include production planning and production scheduling, as well as first to market in the environment of demand uncertainty.

2.3 Production scheduling

Production scheduling looks at aligning the allocated job sequence problems, job production size, machine capacity and order size requested. It pertains to establishing the timing of the use of specific resources in a firm (Nguyen, Nguyen & Pham, 2020). The main difference between production planning and production scheduling is that planning takes the material requisition plan, customer orders and material production into consideration to draw up a production plan that will ensure customers' orders will be ready on time. Production scheduling focuses on implementing the production plan and converting work orders once they have an execution tie period allocated to them (Wang & Zheng, 2013). This relates to the overall production scheduling plan for the production process within some given period to give an idea to management as to what quantity of materials and other resources are to be procured and when, so that the total cost of operations of the organisation is kept to the minimum over the period (Bagshaw, 2014). Scheduling is an important aspect of operations control in both manufacturing and service firms with increased emphasis on output levels and lead time in meeting demand and in satisfying the customer (Ehma & Freitag, 2016). Production scheduling has been found to influence business performance in manufacturing firms (Bagshaw, 2014). Production scheduling focuses on executing the production plan and converting work orders once they have an execution tie period allocated to them. Its function is to boost production planning and control for improved performance (Hulse, Silva, Camponogara, Rosa, Vieira & Teixeira, 2020). Scheduling can be identified as the process of allocating jobs to various machinery while adhering to specific timeframes and ensuring control over the movement of products and material components throughout the manufacturing plant. Labour must be coordinated as well at all assembly points for production to take place.

Production scheduling looks at aligning the allocated job sequence problems, job production size, machine capacity and order size requested. It also pertains to establishing the timing of the use of specific resources in a firm (Wu, Nehzati, Hedenstierna & Strandhagen, 2017). This relates to the overall production scheduling plan for the production process within some given period to give an idea to management as to what quantity of materials and other resources are to be procured and when, so that the total cost of operations of the organisation is kept to the minimum over the period (Mostafa, 2020). Scheduling is an important aspect of operations control in both manufacturing and service firms with increased emphasis on output levels, lead time in meeting demand and satisfying the customer (Yang, Ma, & Wu, 2016). Production scheduling has been found to positively influence business performance in manufacturing firms, which, in turn, means production scheduling is a dimension of production planning and an antecedent of business performance.

2.4 First to market

According to Wang and Deng (2016:6003), first to market or early market entrants is when an organisation can penetrate a specific market faster than its competitors which enables that organisation to gain higher customer share. First to market firms can gain sustainable competitive

advantage and create a barrier for new entrants into the market. There are risks involved such as failing to keep and grow their customer share and losing to the opposition (Song, Zhao & Benedetto, 2013). Market entry timing is a critical strategic decision that firms entering new markets must take. If done correctly, these firms can establish strong resource position barriers for their competitors that ultimately lead to business performance (Klein & Jakopin, 2012). Previous researchers have shown that order of entry significantly affects the firm's performance in the market (Robinson & Fornell, 1985; Lambkin, 1992). They suggest that early entrants (pioneers) enjoy enduring competitive advantages over followers (early followers and later entrants) which translates into a higher level of market share and profitability (Mittal & Swam, 2004).

First to market firms can gain sustainable competitive advantage and create a barrier for new entrants into the market. There are risks involved such as failing to keep and grow their customer share and losing to the opposition (Gossé, Hoffreumon, Zeebroeck & Bughin, 2020). Market entry timing is a critical strategic decision that firms entering new markets must take. If done correctly, these firms can establish strong resource position barriers for their competitors that ultimately leads to business performance (Hietala, 2017).

Previous researchers have shown that order of entry significantly affects the firm's performance in the market, and it was noted that first-mover advantages were ultimately asymmetries between the core competitors in a market (Robinson & Fornell, 1985; Lambkin, 1992). Powell (2014) suggests that early entrants (pioneers) enjoy enduring competitive advantages over followers (early followers and later entrants) which translates into a higher level of market share and profitability.

For a business to adapt to external threats, it requires resourcefulness, creativity, and innovation. Without direct continuous innovation and improvement to the plant, manufacturing organisations cannot remain competitive (Oni, Agbobli & Iwu, 2019). Innovations reflect a critical way in which a business responds to market challenges and the need of the market is to deliver high quality products through continuous changing in features of the product, improving existing products, reducing their costs and improving employee skills and training. This ultimately leads to better performance for the business (Nanda *et al.* 2015).

2.5 The notion of business performance

If businesses can consistently provide their customers with the desired quality and quantity of the products demanded at an acceptable price, this may assist them in gaining a competitive advantage over their competitors (Pham, 2020). For a business to be successful over a long period, the business must have an internal foundation and management over its operations for inbound and outbound movement to run smoothly (Williams *et al.* 2015). One of the manager's toughest and most important responsibilities is to evaluate the performance of their business, and this is done through performance appraisal (Tokola *et al.*, 2016). The selection of a suitable strategy cannot bring the desired results by itself (Vranakis *et al.*, 2014). In particular, the enhancement of the manufactured product quality, a direct response to market demands, the minimal delay on the firm's behalf and, of course, the minimal production cost, have been emphasised (Vranakis *et al.*, 2014). Businesses

that want to grow must adapt to the rapidly changing environment through continuous innovation to develop new products to reach new customers (Pham, 2020). Customer perceived value is a function of quality and price. It enhances repurchase intention and discourages switching behaviour. Some customers equate value with price, and this is usually the case when goods are perceived to have uniform or homogenous levels of output, the cheapest goods are seen as the most valuable (Muturi *et al.*, 2014). The role played by the perceived value on business performance directly results in an assessment of whether a seller's price can be reasonably justified and a price paid higher than other customers is likely to be perceived as less fair (Kharim *et al.*, 2014). Thus, customer perceived value is a dimension of business performance.

It is important to fully understand the competencies of each unit and their strengths, weaknesses, expectations, and values to build productive and positive relationships amongst organisations, making relationship building an antecedent of business performance (Nguyen *et al.*, 2020). Reine (2015) defined collaboration as a cross unit that takes place when people from different units work together in cross unit teams on a common task to provide significant help to each other for a better output. This factor also serves as an antecedent of business performance. Collaboration within business units leads to better innovation which happens because people from different areas, business units, divisions, technology centres and sales offices come together to create new ideas through these interactions and go on to develop exciting products (Reine, 2015).

If businesses can consistently provide their customers with the desired quality and quantity of the products demanded at an acceptable price, this may assist the business in gaining competitive advantage over their competitors (Pham, 2020:723). Gomez, Lanzolla and Maicas (2016:271) state that one of a manager's toughest and most important responsibilities is to evaluate the performance of their business, and this is done through performance appraisal. The selection of a suitable strategy cannot bring the desired results by itself (Vranakis *et al.*, 2013:337). Firm and production strategies must conform to one another and reflect the performance and environment of the firm. In the past few years, a vast number of approaches-theories have been developed regarding the improvement of the firm's operational performance. In particular, the enhancement of the manufactured product quality, a direct response to market demands, minimal delay on the firm's behalf and, of course, minimal production cost has been emphasised (Vranakis *et al.*, 2013:339).

3. METHODOLOGY

Reliability and validity of a measurement is the degree to which the measurement instrument employed has no error, and the approach to assessing reliability includes using Cronbach's alpha coefficient and alternative forms (Robinson, 2018). Cronbach's alpha was used in this study to measure the reliability of all constructs; the reliability of the constructs is determined by a higher level of Cronbach's coefficient alpha. Dunn, Seaker and Walker (1994) stated that reliability of a construct must be above 0.7 to enhance the internal consistency of the construct.

Table 1. Accuracy analysis statistics

| Research Constructs | | Descriptive Statistics | | Cronbach's Test | | CR | AVE | Factor Loading |
|-----------------------|-----|------------------------|-------|-----------------|---------|-------|-------|----------------|
| | | Mean | SD | Item-total | α Value | | | |
| Production Planning | PP1 | 4.662 | 0.636 | 0.479 | 0.767 | 0.881 | 0.650 | 0.761 |
| | PP2 | | | 0.702 | | | | 0.919 |
| | PP3 | | | 0.607 | | | | 0.796 |
| | PP4 | | | 0.520 | | | | 0.738 |
| Production Scheduling | PS1 | 4.570 | 0.593 | 0.459 | 0.704 | 0.803 | 0.513 | 0.519 |
| | PS2 | | | 0.494 | | | | 0.661 |
| | PS3 | | | 0.446 | | | | 0.770 |
| | PS4 | | | 0.570 | | | | 0.866 |
| First To Marke | FM1 | 3.377 | 0.903 | 0.646 | 0.819 | 0.865 | 0.682 | 0.824 |
| | FM2 | | | 0.780 | | | | 0.905 |
| | FM3 | | | 0.608 | | | | 0.741 |
| Business Performance | BM1 | 4.492 | 0.654 | 0.608 | 0.846 | 0.887 | 0.663 | 0.802 |
| | BM2 | | | 0.757 | | | | 0.873 |
| | BM3 | | | 0.731 | | | | 0.875 |
| | BM4 | | | 0.677 | | | | 0.824 |

Significant Level <0.05 *; significant level <0.01 ***; significant level <0.001 **, BP= Business Performance; FM = First to Market; PP = Production Planning; PS = Production Scheduling

FM4 was deleted because the item to total correlation was less than 3, thus, it did not meet the threshold. The decision to remove the items was to obtain reliable and valid results for the data analysis. Based on table 1, PP, PS, FM, and BM are above the threshold of 0.7 and therefore reliable. The item to the total value observed from table 1 ranges from 0.479 to 0.780 specifically between PP, PS, FM, and BM, which showed valid results and are above the required cut off point of 0.3 as advised by Nunnally and Bernstein (1994). According to Alhadi *et al.* (2018) a composite reliability index value that is higher than 0.7 proves the adequacy of the internal consistency of the research construct. An analysis of data from table 1 illustrates that all research constructs are above 0.7, which affirms the existence of internal validity of all constructs measured is reliable. The average value extracted (AVE) should be greater than 0.5 as Fornell *et al.* (1981) postulated. Based on data in table 1, all average values extracted range between 0.5 and 0.6 adhere to the required acceptability value, thus all constructs met the required degree of acceptability (Bentler & Bonnet, 1980)

3.1. Discriminant Validity

This refers to the extent to which scores from a measure are distinct and do not correlate to other measures. Discriminate validity was measured in this study by observing the correlation matrix as well as the average variance extracted results (Alhadi *et al.*, 2018)

Table 2, Correlation matrix

| Research Variable | | BP | FM | PP | PS |
|-------------------|----|---------|---------|---------|-------|
| | BP | 1.000 | | | |
| | FM | .412*** | 1.000 | | |
| | PP | .681*** | .897*** | 1.000 | |
| | PS | .429*** | .604*** | .675*** | 1.000 |

Significant Level <0.05 *; significant level <0.01 ***; significant level <0.001 **, BP= Business Performance; FM = First to Market; PP = Production Planning; PS = Production Scheduling

As indicated in table 2, there is a positive correlation across all constructs, and they are all below the required level 1 of 1.0, which proves there is discriminant validity in the measurement scale (Bollen, 1990; Bentler & Bonnet, 1980).

3.2 Hypothesis Testing Results

Once the reliability and validity of the research constructs and measurement instruments have been proved and confirmed, the researchers tested the hypothesis of the study. Smart PLS software was used to test and verify the relation of the hypothesis.

Table 3, Results of Hypothesis Testing

| Path Coefficients | Hypothesis | Path Coefficient | P value | T-Statistics | Decision |
|---|------------|------------------|---------|--------------|-------------------------------|
| Production Planning -> Business Performance | H1 | 0.628 | *** | 8.006 | Significant and supported |
| First to Market -> Business Performance | H2 | 0.024 | *** | 4.255 | Significant but not supported |
| Production Scheduling -> Business Performance | H3 | 0.989 | *** | 19.910 | Significant and supported |

Significant Level <0.05 *; significant level <0.01 ***; significant level <0.001 **, BP= Business Performance; FM = First to Market; PP = Production Planning; PS = Production Scheduling

Table 3 above focuses on the P value and T-statistics. T-statistics should be above 1.96, and all the above values are above the recommended threshold, which shows a strong and significant relationship between the variables.

4. DISCUSSION OF RESULTS

The results acquired from testing hypothesis one confirms the correlation between production planning and business performance. The hypothesis proves that there is a significant relationship

between production planning and business performance, and the relationship is supported. The results obtained from this study are supported by Wu *et al.* (2017) and Yang *et al.* (2017) who regards production planning as a strategic function in the manufacturing process and that it is closely related to business performance. Dametew, Ketaw and Ebinger (2019) affirm that production scheduling cannot be successfully executed without the function of production planning. Based on the results obtained, it can be concluded that when organisations align planning and scheduling strategically, it becomes highly likely that they can effectively execute lean manufacturing and boost production.

The results obtained from testing hypothesis two show that there is a positive relationship between first to market and business performance. This means that without the use of first to market, business performance would not be met. Based on the results, it can be confirmed that first to market is directly impacted by the business performance. Feng, Jiang, Li, and Feng (2018) noted that the function of good business performance is crucial for an organisation aiming to attain the first mover advantage. With the aid of marketing research, planning can ensure products reach consumers before a competitor can produce a similar product (MacCarthy & Brabazon, 2020). Thus, for a manufacturing firm to succeed in being the first to the market, products should be produced at the right time, in the right quantity and right quality (Pielmeier *et al.*, 2019). These two variables directly influence the customers' perception and increase brand loyalty and ultimately good business performance.

The results of this study prove that the relationship between production scheduling and business performance is significant and supported (H3). The $p < 0.001$ and the path coefficient is $\beta = 0.989$. Furthermore, the t-statistic value is observed at 19.910. This illustrates that production scheduling in the manufacturing organisation influences business performance in a very significant way than first to market and production planning. The literature has supported the significance of the scheduling function on business performance. This is supported by Yang *et al.* (2016) who state that production scheduling is a vital function in manufacturing as this heightens control in the factory, ensures continuous flow and prevents bottlenecks, thus improving overall business performance. It can be concluded that production scheduling is critical to the success and overall performance of the business. This function plays an important role in gaining business market share and potentially being the market leader. This function requires more focus from manufacturing companies to reap the full rewards.

5. LIMITATIONS AND IMPLICATIONS FOR FUTURE RESEARCH

The electronically sent questionnaires had very few respondents and so many errors when returned. The sample size was only limited to Gauteng thus results could be more meaningful and robust if more provinces were included or rather do a comparison of two provinces to get different results. Also, the researchers could have received more participants if this study was across more than one province. The results and findings in this study proved to be very insightful into the organisations in the manufacturing industry, specifically general managers, and production/operations

practitioners. This study used a quantitative method for data collection thus future researchers can consider using a mixed method approach. This can allow the researcher(s) to get further constructive details from the respondents. This study drew three hypotheses' statements though there was potential to use more, thus, future studies can expand the field of research by looking into other contributing variables.

6.CONCLUSION

This study has presented vital information relating to best operational practices that should be implemented in manufacturing industries. It has proved that variables such as production planning, production scheduling and first to market can positively improve the performance of manufacturing industries. This study has also briefly highlighted other factors, which can be considered by management to drive efficiencies throughout the production plan. The findings confirm that production planning can be used as a risk avoidance technique by ensuring production is carried out efficiently by minimising waste and costs related to production job changeovers. This study can contribute to increasing literature on lean manufacturing and production excellence. These recommendations are of value to production planners, production managers, general managers, and supply chain practitioners in the manufacturing space. This study also enlightens managers in this industry in identifying areas for improvement in their production process, scheduling process and first to market techniques and applying beneficial strategies for production improvement.

REFERENCES

- Altendorfer, K. (2015). Influence of Lot Size and Planned Lead Time on Service Level and Inventory for A Single-Stage Production System with Advance Demand Information Required Lead Times. *International Journal of Production Economics*, 170, 478–488.
- Alhadi, S., Saputra, W., and Supriyanto, A. (2018). The Analysis of Validity and Reliability of Self-Regulated Learning Scale. *International Conference on Education Innovation*, 139, 284-286.
- Bagshow, K.B. (2014). Assessing The Application of Production Scheduling: Demand Uncertainty and The Performance of Manufacturing Firms in Rivers State, Nigeria. *International Review of Management and Business Research*, 1, 1-18.
- Barzanji, R., Naderi, B., and Begen, M. A. (2019). Decomposition Algorithms for The Integrated Process Planning and Scheduling Problem. *Department of Industrial Engineering*, 1-28.
- Brunaud, B., Laínez-Aguirre, J.M., and Grossmann, I. E. (2019). Inventory Policies and Safety Stock Optimization for Supply Chain Planning. *American Institute of Chemical Engineers Journal*, 65, 99-112.
- Cheah, J.H., Memon, M.A., Chuah, F., Ting, H., and Ramayah, T. (2018). Assessing Reflective Models in Marketing Research: A Comparison Between Pls and Plsc Estimates.

-
- Dametew, A.W., Ketaw, D., and Ebinger, F. (2019). Production Planning and Control Strategies Used as A Gear Train for the Death and Birth of Manufacturing Industries. *Journal of Optimization in Industrial Engineering*, 12, 21-32
- Ehm, J., and Freitag, M. (2016). The Benefit of Integrating Production and Transport Scheduling. *Bremer Institut Für Produktion Und Logistik Gmbh at The University of Bremen, Hochschulring: Germany*. 585 – 590.
- Feng, H., Jiang, Z., Li, M., and Feng, N. (2018). First- Or Second-Mover Advantage? *The Case of It-Enabled Platform Market*, 1-71.
- Hietala, A. (2017). First-Mover Advantages And -Disadvantages: Case Study on Prospectum Oy. *Helsinki Metropolia University of Applied Sciences*, 1-32.
- Jayaslaw, S., and Jewkes, E. M. (2016). Price and lead time differentiation, capacity strategy and market competition. *International Journal of Production Research*, 54, 2791-2806.
- Kloock, J. (1969). *Betriebswirtschaftliche Input-Output-Model*. Wiesbaden: Germany
- Mwalim, A., O., Egessa, R., K., W., and Evans, K. (2019). Effect of Setting of Performance Contract Objectives on Organizational Performance in the State-Owned Sugar Companies. *International Journal of Multidisciplinary and Current Research*, 1-8.
- Maccarthy, B., L., and Brabazon, P.G. (2020). Order Fulfillment in High Variety Production Environments. *Journal Operations Management Division*, 1-19.
- Madankumar, S., and Rajendran, C.A. (2018). A Mixed Integer Linear Programming Model for the Vehicle Routing Problem with Simultaneous Delivery and Pickup by Heterogeneous Vehicles, And Constrained by Time, Windows. 1-14
- Nikolic, B., Ignjatic, L., Suzic, N., Stevanov, B., and Rikalovic A. (2017). Predictive Manufacturing Systems in Industry 4.0: Trends, Benefits and Challenges. *International Symposium on Intelligent Manufacturing and Automation*, 796-802.
- Nanda, T., Khamba, J.S., and Singh, D. (2015). Role of Technology Innovation in Improving Manufacturing Performance. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, (1), 389-402.
- Pielmeier., Theumer, P., Schutter, C.L., Sonyman, S., Bessdo, O, Braunreuther, S., and Reinhard, G. (2019). Methods of Event Based Production. *Conference On Intelligent Computation in Manufacturing Engineering*, 373-378.
- Plenert, G.J. (1993). *The Plant Operations Handbook: A Tactical Guide T Everyday Management*. Brigham Young University: USA.
- Poelmans, E., Raisanen, S., and Taylor, J.E. (2019). The Long-Run Effect of Geographically Staggered Legalizations: Was There a First-Adopter Advantage for States That Legalized Beer More Quickly In 1933. *The Journal of the Economic and Business History Society*, 1-15.
-

Robinson, M.A. (2018). Using Multi-Item Psychometric Scales for Research and Practice.

Samaranayake, P. (2013). Improving Manufacturing Lead Time Using Holistic Approach to Planning and Executing with Intergraded Data Structure: Numeric Simulation and Comparison. *Interactions Journal of Production Research*, (51), 4484-4501.

Song, M., Zhao, L., and Benedetto, C. A. 2013. Do Perceived Pioneering Advantages Lead to First-Mover Decisions. *Journal of Business Research*, 66: 1143-1152.

Tripathi, V., Stanton, C., Strobino, D., and Bartlett, L. (2019). Measuring the quality of maternal and care processes at the time of delivery in sub-Saharan Africa: development and validation of a short index.1-12.

Tseng, S. (2016). Knowledge management capability, customer relationship management & service quality. *Journal of Enterprise Information Management*, 29(2), 202-221.

Tseng, C., and Tseng, C. (2019). Corporate entrepreneurship as a strategic approach for internal innovation performance. *Asia Pacific Journal of Innovation and Entrepreneurship*, 13, 108-120.

Wang, H. F., and Zheng, K. W. (2013). Application of Fuzzy Linear Programming to Aggregate Production Plan of a Refinery Industry in Taiwan. *The Journal of the Operational Research Society*, 64(2), 169-184.

Wang, C., and Jiang, P. (2017). Deep Neural Networks Based Order Completion Time Prediction by Using Real-Time Job Shop RFID Data. *Journal of International Manufacturing*, 1-17.

Wu, Q., Nehzati, T., Hedenstierna, C.P.T., and Strandhagen, J.O. (2017). Scheduling Fresh Food Production Networks: Advances in Production Management Systems: The Path to Intelligent, Collaborative and Sustainable Manufacturing. *International Conference on Advances in Production Management Systems*, 148-156

Yan, R. Li, M. M., and Wei, W. C. (2018). Integrated Production Scheduling and Distribution Planning with a Two-Stage Semi Continuous Flow Shop Environment. *International Journal of Simulation Modelling*, 17, 553-561.

Yang, Z., Ma, Z., and Wu, S. (2016). Optimized Flow Shop Scheduling of Multiple Production Lines for Precast Production. *Automation in Construction*, (72), 321-329.

Yang, J. Q., Zhang, X, M., Fu, H, Y., and Lui, C. (2017). Inventory Competition in a Dual-Channel Supply Chain with Delivery Lead Time Consideration. *Applied Mathematical Modelling*, 42, 675-692

SSIRC 2023-021

MODELLING THE INFLUENCE OF RESOURCE MOBILISATION, EMPLOYEE TRAINING AND INNOVATIVENESS ON SMALL AND MEDIUM ENTERPRISES' SUSTAINABILITY

S.A. Mofokeng

Vaal University of Technology, South Africa

E. Chinomona

Vaal University of Technology, South Africa

ABSTRACT

Small and medium enterprises (SMEs) in South Africa and the rest of the world play a pivotal role in the growth of the economy. But there are always challenges that cause most of these enterprises to fail. The failure of these SMEs is linked to the underperformance of the national economy, as shown by an increase in poverty levels and unemployment in many developing countries. Hence, there is a need for further investigation into the sustainability of SMEs in the South African manufacturing industry in Gauteng province. The objective of the study is to investigate the influence of resource mobilisation, employee training and innovativeness on SMEs' sustainability. A quantitative approach was adopted in which a survey questionnaire was used to collect data from manufacturing SMEs in Gauteng Province. The study used a non-probability convenience sampling technique to select respondents. Data were analysed with the aid of two software packages: the Statistical Package for the Social Sciences (SPSS version 28.0) and the Analysis of Moment Structures (AMOS version 28.0). A confirmatory factor analysis was used in investigating and testing the relationships between observed constructs and their causal latent constructs, while structural equation modelling was used to test the hypothesised relationships between constructs. The results show that there is a positive and significant relationship between resource mobilisation, employee training and innovativeness on SME sustainability. All three (3) hypotheses were positive and significant in the study. SME owner-managers in the SME industry need to ensure that principles such as the risk and return principle, cash flow principle and profitability and liquidity principle, to mention a few, are observed in their organisations so that economic and financial sustainability can be realised in their organisations.

KEYWORDS: Small and Medium Enterprises; Resource Mobilisation; Employee Training; Innovativeness; Sustainability of SMEs

1. INTRODUCTION

The study aimed at figuring out the relationship that exists among internal management systems, innovativeness, and the sustainability of Small and Medium Enterprises (SMEs) within the South African manufacturing sector. As a result of the changes that are taking place daily in technology and business operational policies, organisations are to revisit their internal management systems,

level of innovativeness and sustainable measures with SMEs as their main reference. In the past few decades, small and medium enterprises have emerged as major drivers of socio-economic growth across the globe (Zindiye, 2010; Chimucheka, 2015; Langwell & Heaton, 2016; Venkatasubramanian & Ramanakumar, 2018). Tshikhudo (2012) opines that SMEs are repeatedly considered the root leading to the creation of big enterprises, besides being the fuel of economic engines. Ehtesham (2011) indicates that SMEs are crucial to the process of overcoming poverty and increasing the level of livelihood in many societies. Al-Mahrouq (2010) and Aremu and Adeyemi (2011) assert that SMEs are significant drivers and indices for the level of industrialisation, modernisation, urbanisation, and gainful and meaningful employment for all those who are able and willing to work, as well as for income per capita, equitable distribution of income and the welfare of the citizenry and the quality of life it enjoys. Thus, SMEs contribute immensely to the creation of national wealth and the generation of economic growth and have been cited as major drivers of employment creation (Makanyeza & Dzukey, 2015).

In South Africa, SMEs play a pivotal role in creating jobs and wealth in the economy. They employ almost half of the working population and contribute 50% of the gross domestic product (GDP) (Fatoki, 2011; Rogerson, 2013). Some scholars (Aigbavboa, Tshikhudo & Thwala, 2014; Muyengwa, Mukhuba, Battle & Mbohwa, 2013) hold the widely held view that SMEs in South Africa can reduce the rate of unemployment; they contribute between 52% and 57% to the GDP and provide about 61% of employment opportunities. Aigbavboa *et al.* (2014:350) confirm this assertion when they state that 91% of formal business entities in the South African manufacturing industry are SMEs, while a report by Deloitte (2013) states that the manufacturing industry employs around 1.7 million people and is currently the second-largest sector in the economy. However, gaining a competitive advantage remains a significant challenge as most SMEs fail to reach such goals, thus negatively affecting both their survival and the larger economy (Rogerson, 2013). To ensure the continued existence and sustainability of SMEs, they must embrace management best practices, as well as nurture innovativeness and creativity within the sector, which can be achieved through both access to adequate resources and comprehensive training (Hove, Sibanda & Pooe, 2014). It was the intention of this study to examine how management practices and innovativeness can be harnessed to boost the sustainability of SMEs in the South African manufacturing environment. According to Chimucheka and Mandipaka (2015), the existence of SMEs is susceptible to threats emanating from operational and management discrepancies, which create various challenges in the business environment. Inadequate resources, including human, financial, physical, technological, and informational resources, are some of the main reasons behind the failure of SMEs in most developing economies (Alafeef, 2015; Chimucheka, 2015). Moreover, because of the lack of adequate planning and understanding of customer needs, SMEs fail to develop the innovative business ideas required to provide unique services to customers (Kumar, 2015). This leads to numerous problems because it is through creativity and innovativeness that SMEs in various geographical areas manage to create unique products and services, which are necessary to sustain their operations.

The above discussion suggests that although SMEs in South Africa and the rest of the world play a pivotal role in the growth of the economy, there are always challenges that cause most of these enterprises to fail. The failure of these SMEs is linked to the underperformance of the national economy, as shown by an increase in poverty levels and unemployment in many developing countries (Masocha & Fatoki, 2018). Hence, there is the need for further investigation into the sustainability of SMEs in the South African manufacturing industry.

CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

This model consists of three predictor variables which are resource mobilisation, employee training and innovativeness and Small and Medium Enterprises' sustainability as the outcome variable.

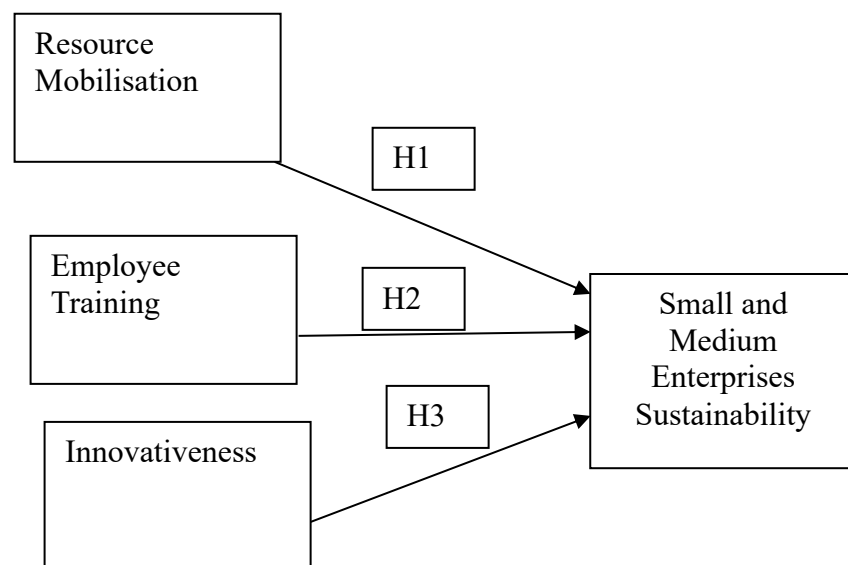


Figure 1: Conceptual Framework

H1: Resource mobilisation positively influences small and medium enterprises' sustainability.

H2: There is a positive relationship between employee training and small and medium enterprises' sustainability.

H3: There is a positive relationship between innovativeness and small and medium enterprises' sustainability.

2 LITERATURE REVIEW

The theory applicable to this study and explanation of constructs is done under the literature review.

2.1 The Dynamic Capabilities Theory

In this study, the dynamic capabilities theory (DCT) is considered to apply to both innovativeness, resource mobilisation and training as predictor variables and sustainability as the outcome variable in the study, respectively. The theory was initially introduced by Teece and Pisano in 1994 after they discovered the limitations of the Resource Based View theory (RBV) (Gizawi, 2014). Eisenhardt and Martin (2000) state that the dynamic capabilities framework emerged from the RBV. The RBV directly associates organisational business outcomes with organisational resources

in a relatively stable and predictable atmosphere. This is also noted by Teece and Pisano (1994) who claimed that although the RBV is the best theory for recognising the mechanisms that enable competitive advantage, it does not attempt to explain how these mechanisms operate hence the emergence of the DCT.

Teece and Pisano (1994) define dynamic capabilities as the ability of a firm to achieve new forms of competitive advantage by being flexible and fast in dealing with changing market environments. This is supported by Wang (2015), who notes that dynamic capabilities are often defined as the firm's ability to adapt to given changes in the environment. They enable a firm to quickly create, enhance or realign its resources to create or maintain a competitive advantage in a dynamic environment. Other scholars (Faizal, Zaidi & Othman, 2012; Owoseni & Twinomurinzi, 2018) highlight that the purpose of dynamic capabilities is to effect stability by renewing, recombining, redeploying, replicating, retrenching, and retiring resources or capabilities in a volatile business environment towards business gains.

The DCT expands on two fundamental issues: the firm's ability to renew competencies to adapt to changes in the business environment and the capacity of strategic management to use these competencies to match the requirements of the environment (Gizawi, 2014). The main argument behind the DCT is that organisations develop specific competencies to respond to changes in the business environment, and this is ultimately related to the firm's business processes, market positions and opportunities (Giwazi, 2014). These three factors form the basis for determining dynamic capabilities, namely, processes, positions, and paths. Processes encompass the way things are done in organisations, and they have three roles: coordination, learning and reconfiguration (Owoseni & Twinomurinzi, 2018). Positions are defined as the specific endowment of technology, intellectual property, complementary assets, customer base and external relations with suppliers, while paths refer to the strategic alternatives available to the firm, and they are defined by path dependencies and technological opportunities (Gizawi, 2014:2). Faizal *et al.* (2012:368) identified the three dimensions of the perspective: adaptive capability, absorptive capability, and innovative capability. The DCT applies to this study because it enables organisations to be innovative in their operations, leading to sustainability and improved performance.

2.2 Small and Medium Enterprises Innovativeness

The small and medium enterprise sector, from a global perspective, is an important and powerful aspect of individual state economies as it enhances social development (Ashley, 2018) while playing a pivotal role in technologically oriented innovation, employee creation and development, market expansion and efficiency through competition, as well as the maintenance and enhancement of national social stability and justice (Chinomona & Hove, 2015). However, various aspects lead to the SMEs' inability to make these benefit the economy (Choi, Kim & Yang, 2019), which include the impact of various international environments that they are exposed to, such as the financial market, an ecological system together with its flaws (Cuihong, 2018), thereby exposing SMEs to globally and locally oriented challenges that hinder their sustainable development, mostly concerning the area of sustainable innovation (Burch, 2018). Long term growth and development

of the SME sector require its ability to sustain an economic boom, remain firm in the competitive world by having continued revenue growth, expand the market and maintain good public relations (Aguado & Holl, 2019). It also requires being considerate of the effective and efficient usage of natural resources and the ability to protect the immediate environment together with the maintenance of the ecological balance. (Cuihong, 2018; Dey & Petridis, 2019). However, during the innovation process, which entails a move from poor utilisation of resources to efficient and effective usage (Hahn, 2019), under such conditions, if an enterprise decides to stick to the old ways of operations as well as improper organisational regulations while being ignorant to embark on innovation, this would expose the entity to a situation whereby it would be unable to enjoy the benefits associated with being a competitive advantage (Guokun, 2019). This shows that innovation is the key to organisational success and is the fundamental path towards an entity's competitiveness (Honglie, 2019) and resembles a great source of power towards the sustainable development of SMEs (Madzik, Budaj & Chocholáková, 2018).

2.3 Sustainability

Sustainability from an SME's perspective implies an action in which the readily available resource usage is aimed at meeting current organisational needs (Ashley, 2018), and at the same time being cognisant and considerate of the environment in which it operates (Hosoda, 2019), not only for the sake of fulfilling the needs of the present moment but for future generational needs (Rothwell, 2018). This means that the operations of an organisation exist in perpetuity while existing in the same environment as before with the same resources used by earlier organisations to achieve the set goals (Xiaoying, 2018). The Brundtland Commission is known to be the most user of the term sustainability, which has been defined according to the commission as the most popular definition in the world of business operations (Gladwin, Kennelly & Krause, 2018), thus, it means a type of development meant to meet present-day needs while uncompromising the ability of the future generations to meet their demands (Aguado & Holl, 2019). Two aspects are emphasised by the definition in that there is the "concept of needs, in particular, the essential needs of the world's poor, to which overriding priority should be given and the idea of limitations imposed by the state of technology and the social organisation on the environment's ability to meet the present and the future needs" (Arruda, De Jesus Lameira, Quelhas & Pereira, 2019). In this regard, the organisation's continued existence for an unforeseeable duration, together with its various stakeholders, is important in the world of business (Bansal, 2019).

2.4 Resource mobilisation

According to Lamprecht (2011), resources in a business setup comprise tangible and intangible elements that are bundled together for the sake of achieving business stipulated goals, ranging from profitability, progressive existence, sustainability, and wealth maximisation to market domination. The success or failure of any business setup is entirely hinged on the availability and the ability to use readily available resources (Langwell & Heaton, 2016). Most firms are faced with the problem of being unable to use the available resources to the benefit of the organisation, which makes it not an obvious issue that the presence of resources is a licence to business success (Yasuda, 2015). The

African continent is rich in natural and human resources, but the problem is with the continent's inhabitants in bundling the resources to their advantage (Aboelmaged, 2018). According to Kozlenkova, Samaha and Palmatier (2014), a firm is an intertwined bundle of resources that is to be converted into meaningful business activity to influence the surrounding communities. It is the firm's disposal that is used to influence business performance, which is where creativity and innovativeness and building relationships with the customers come in to influence market behaviour. It is a competitive advantage that is earned out of the firm's ability to have a progressive resources capability such that other market participants would be unable to duplicate the product (Makadok, 2011). The development of SMEs is hinged on the capability of the entities to use readily disposable resources to enhance development and growth and thus be sustainable (Matsoso, 2014). There are various types of resources that an organisation needs for its establishment, survival and growth, and SMEs are not an exception in this regard. The resources identified for the sake of this study are inclusive of financial, human resources, informational and physical.

For example, a financial resource in business terms refers to any form of asset that is easily convertible into cash when the need arises (Abdulsaleh & Worthington, 2019), thus the definition incorporates the liquidity aspect regarding the asset in that form of financial nature (Saksonova, 2018). In another definition, financial resources refer to the monetary resources an organisation has in the form of bank and liquid cash reserves that can be easily accessed by the organisation in case of need (Cycle, 2018). Thus, for this study, financial resources shall be seen as the monetary resources in cash or bank or any form of current assets an organisation can easily use for the sake of ensuring business continuity. This follows the conversion of the financial resources in growing the business by curbing opportunities as they arise as well as ensuring the smooth flow of business activities. Financial resources play a pivotal role to both the business and the entrepreneur or business owner (Abbrey et al., 2018), as they are a vehicle that enables an organisation to acquire the vital resources (Agwu & Emeti, 2019) that enhance the smooth flow of the business activities (Andrew, 2017; Ayanda & Laraba, 2019; Beck & Demirgüç-Kunt, 2018). It is the responsibility of the entrepreneur to determine and observe the nature of the financial resources that the organisation needs for it will be an avenue towards the determination of how the financial resources can be obtained (Cycle, 2018).

Additionally, there is a need for financial resources for the business to start operating sustainably and profitably. It is evident from the developing countries' point of view that the availability of financial resources is the main factor behind the success or failure of business entities (Alafeef, 2019). Funding limits the capacity of SMEs to grow and exist on an ongoing basis (perpetuity) with specific reference to developing nations' SMEs (Millicent & Reginald, 2014). However, even if financial resources are available through the financial services sector, the challenge remains the same in terms of accessing and securing funding as most of the financial institutions follow secure lending practices.

An SME does not have the much-needed collateral security to act as a guarantee to the repayment of the advanced loan when it falls due (Moaisi, 2014). This has forced SMEs to be funded by personal savings and loans from friends and relatives, making the SMEs' operations unsustainable,

as one cannot meet the business requirements with such a low capital investment. The larger the capital investment, the greater the return since it is aligned with several advantages that include the ability to buy in bulk, access the latest technology and employment of skilled and competitive human resources (Wiese, 2014). The other forms of resources such as human, physical, and informational aspects are dependent on the availability of financial resources thus making the financial resources a key controlling factor in the success or failure of the SMEs.

3. METHODOLOGY

A quantitative research design was adopted in this study. The target population for this study was SMEs in the manufacturing sector in Gauteng Province, South Africa. Gauteng province was selected since it is the economic epicentre of South Africa and has the highest number of manufacturing SMEs in the country. Due to the lack of reliable information related to the number and the location of manufacturing SMEs in Gauteng province, there was no sampling frame used in this study. However, the online South African Small Business Directory was used to identify the available SMEs and their contact details. Since the study used the structural equation modelling (SEM) procedure to analyse data, sample size recommendations for SEM were applied. The sample size for this study was set at n = 500 respondents.

Reliability and Validity

In this study, reliability was tested through the average value extracted (AVE, Cronbach’s alpha, and Composite reliability). Table 1 below presents the results of the reliability descriptive statistics, composite reliability, the average value extracted, Cronbach’s test and factor loading.

Table 1: Accuracy analysis statistic

| Research constructs | | Descriptive statistics | | Cronbach’s alpha | | CR value | AVE | Factor loading |
|-----------------------------|-----|------------------------|--------------------|------------------|--------|----------|-------|----------------|
| | | Means | Standard deviation | Item-total | αvalue | | | |
| Resource Mobilisation (RM) | RM1 | 4.880 | 4.190 | 0.800 | 0.758 | 0.758 | 0.613 | 0.872 |
| | RM3 | | | 0.798 | | | | 0.826 |
| | RM5 | | | 0.694 | | | | 0.714 |
| Training (TR) | TR1 | 3.843 | 3.769 | 0.752 | 0.673 | 0.673 | 0.512 | 0.809 |
| | TR3 | | | 0.706 | | | | 0.738 |
| | TR5 | | | 0.614 | | | | 0.649 |
| | TR7 | | | 0.600 | | | | 0.605 |
| Innovativeness (IV) | IV1 | 3.840 | 3.769 | 0.801 | 0.699 | 0.699 | 0.555 | 0.850 |
| | IV3 | | | 0.500 | | | | 0.591 |
| | IV4 | | | 0.834 | | | | 0.867 |
| General Sustainability (GS) | GS1 | 3.809 | 3.148 | 0.793 | 0.650 | 0.650 | 0.530 | 0.808 |
| | GS3 | | | 0.751 | | | | 0.787 |
| | GS5 | | | 0.601 | | | | 0.646 |
| | GS6 | | | 0.500 | | | | 0.560 |

RM=Resource Mobilisation; TR= Employee Training; IV= SME Innovativeness; G=General Sustainability.

Cronbach's alpha test

Cronbach alpha test is an important measure that is mainly focused on internal consistency reliability measurements where the mean of possible split half coefficients is identified that will be a direct result of the splitting of different scale items (Pandey & Pandey, 2019). In this study, the composite reliability was (with RM=0.758; TR= 0.673; IV= 0.699; GS=0.650) as shown in Table 1. Regarding the overall correlation, it is evident that the values for all constructs that are from RM to GS are all above the value of 0.3 as per the stipulations of Field (2005) who state that a total correlation of below a value of 0.3 shows that the items under investigation do not correlate well in the given scale, and it also signifies that the item is not measuring the same construct under measurement by the other items. The results show that all the constructs are reliable since the values are beyond the standard ones in both the Cronbach alpha and the item correlation.

The results show that this is an adequate model fit for the four-factor model since most factor loads are above 0.5, thereby showing a strong relationship among the factor as denoted by Divya (2017).

Table 2: Results of Structural Equation Model Analysis

| Path Coefficients | Hypothesis | Path Coefficient | Outcome |
|--|----------------|------------------|----------------------|
| Resource Mobilisation → SME Sustainability | H ₁ | 0.2 51*** | Accepted/significant |
| Employee Training → SME Sustainability | H ₂ | 0.3 53*** | Accepted/significant |
| SME Innovativeness → SME Sustainability | H ₄ | 0.7 36*** | Accepted/significant |

significance level <0.001***

Source: Author's compilation

As portrayed in Table 2, all beta coefficients for the hypothesised paths are significant at a level of $p < 0.001$. The table also shows that three of the hypotheses (H₁, H₂, H₃) were accepted. The discussion of the stated results will be done in the upcoming section.

4. DISCUSSION OF RESULTS

Results from Table 3 show that all path coefficient estimates were above 0.001, and this shows that the entire three hypotheses were supported from H1 to H3. The first hypothesis states that there is a positive relationship between resource mobilisation and sustainability among SMEs in the South African manufacturing industry. The path coefficient in this regard is 0.251 thereby depicting that resource mobilisation has a positive influence on the sustainability among SMEs in the South African manufacturing industry. In support of this, the ability of an organisation to mobilise various forms of resources which range from human, financial, physical, and intellectual to mention a few is a prerequisite to an organisation's innovative capability and sustainability (Xiaoying, 2018).

Hypothesis two states that there is a positive relationship between employee training and sustainability among SMEs in the South African manufacturing industry. In this regard, the path coefficient is 0.353 thereby depicting that training has a positive influence on the sustainability among SMEs in the South African manufacturing industry. Trained employees can make innovative contributions to the organisation thus making it sustainable. It is of great importance for SMEs to know the benefits associated with employee training in the market (Hosoda, 2019). Thus, the main contributor to the cultivation of the employees' ability to be innovative is aligned to training. In other terms, training means the learning and development process that is meant to create a complete and total change at an individual employee's level in a way to influence their innovative capabilities on the job performance which is meant to ensure that they complete tasks at hand and have technical oriented know-how, as well as skills (Tornatzky & Klein, 2017). Employee training is a vital element in the operations of an organisation because employees can turn technology into profitable business operations.

The fourth hypothesis states that there is a positive relationship between innovativeness and general sustainability factors among SMEs in the South African manufacturing industry. The path coefficient in this regard is 0.736 thereby depicting that innovativeness has a positive influence on the sustainability factors among SMEs in the South African manufacturing industry. A study on the development of innovation through networking reveals that various networks formed during the firm's early stages are vital for the development of the organisation's capacity to have sustainable innovation (Zeng, Xie & Tam, 2017; Dey & Petridis, 2019). In addition, successful innovation comes in because of various factors that include "corporate culture, the presence of a department of innovation or formal process for innovation, number of employees which shows the size of the organisation as more employees are linked to high innovation levels and continuous product review" (Rothwell, 2018).

Sustainability has become the key focus within the international community and western countries have come up with policies on sustainability such as the European and the United Kingdom policy on business operations regarding the environment (Batista & Francisco, 2019). Understanding the activities of the SMEs' impact on the environment and then engaging on general terms, as well as on climate change are very important as these are moves to create a sustainable business environment through the preservation of the ozone layer (Hosoda, 2019). Social and environmental policies on the SMEs are invisible, and this makes them ignorant of social and environmental aspects (Honglie, 2019).

5. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Practically, the results provided in this study are beneficial to SME owners and managers in the manufacturing industry regarding the ways to improve the sustainability and growth of their businesses. The study revealed the strategies for improving the influence of internal management systems on innovation. SME owner-managers in the South African manufacturing industry can take

note and employ these strategies to benefit their organisations. This includes giving hints on how best SMEs can be established, operated, and supported towards ensuring their growth. This helps various stakeholders with the main reference placed on owner-managers and the government through its national growth initiative to be able to realise the exact procedure to follow for the sake of ensuring the successful operations of the SME sector. SME owner-managers must ensure that policies, values, and tenants of corporate governance are observed in their organisation for them to grow. SME owner managers in the SME industry need to ensure that principles such as the risk and return principle, cash flow principle and profitability and liquidity principle, to mention a few, are observed in their organisations so that economic and financial sustainability can be realised in their organisations.

The study has established an easy-to-follow procedure with each stakeholder's responsibility spelt out for the sake of ensuring the continued existence of the SME sector while preserving the readily available resources for use by future generations. Various studies across the globe were consulted, thereby making it feasible to follow up on how to ensure SMEs' survival, growth, and existence from various perspectives, despite location. This study has set up a standard that can be used as a benchmark for ensuring the sustainability of SME operations.

6. PRACTICAL AND THEORETICAL IMPLICATIONS OF THE STUDY

The various contributions of this study are addressed in this section of the study in both practical and theoretical perspectives. Thus, the practical implications are related to the benefits that are aligned with all SME stakeholders. The theoretical benefits relate to the applications of the study in future studies in which it will be used as literature. The study assists in confirming the theoretical assumptions that are there as purported by the conceptual framework on the relationship that exists amongst internal management systems, innovation, and sustainability of SMEs. The model is so robust that it contributes a lot to the theoretical aspect of the study. The results that were presented in the study where literature was reviewed in conjunction with the primary findings about the relationship that exists amongst internal management systems, innovativeness, and sustainability of SMEs, were meant to help all the SMEs stakeholders for the sake of ensuring that SME owner managers use the framework towards the enhancement of SME survival and growth. In addition, the relationship from the path model view in this study gave an in-depth sight of how the elements in the constructs affect each other. The results from the study will influence the body of knowledge as the literature is expanded, and this results in the facilitation of further debates among researchers about SMEs.

REFERENCES

- Abdulsaleh, A. M., and Worthington, A. C. (2019). Small and medium-sized enterprises financing: a review of literature. *International Journal of Business and Management*, 8(2), 36-54.
- Aboelmaged, M. (2018). The drivers of sustainable manufacturing practices in Egyptian SMEs and their impact on competitive capabilities: A PLS-SEM model. *Journal of Cleaner Production*, 1-207.

-
- Abbrey, J., Bagah, D. A., and Wulifan, J. K. (2018). The relevance of business planning document for small and medium scale enterprises in Tamale metropolis, North Ghana. *Journal of Business Administration and Education*, 7(1), 34-80.
- Aguado, E., and Holl, A. (2019). Differences of corporate environmental responsibility in small and medium enterprises: Spain and Norway. *Sustainability*, 6(2), 20-32.
- Alafeef, M. (2019). The impact of innovation marketing orientation in achieving the competitive advantage in hotel establishments in Saudi Arabia case study Al-Baha City-KSA. *International Journal of Scientific and Technology Research*, 1-190.
- Andrew, K. (2017). The challenges of entrepreneurship as an economic force in rural development: a case study of Kyaddondo East constituency, Wakiso district in Uganda, East. *African Journal of Science and Technology*, 5(1), 1-16.
- Arruda, L., De Jesus Lameira, V., Quelhas, O., and Pereira, F. (2019). Sustainability in the Brazilian heavy construction industry: An analysis of organizational practices. *Sustainability*, 1(3), 55-70.
- Al-Mahrouq, M. (2010). Success factors of small and medium enterprises: the case of Jordan. Zagreb. *International Review of Economics and Business*, 13(2), 89-106.
- Ashley, P. (2018). *Ethics and Social Responsibility in Business*. 2 ed. Brazil: Saraiva: São Paulo.
- Ayanda, A. M., and Laraba, A. S. (2019). Small and medium scale enterprises as a survival strategy for employment generation in Nigeria. *Journal of Sustainable Development*, 4(1), 10-30.
- Bansal, P. (2019). Evolving sustainably: A longitudinal study of corporate sustainable development. *Strategic Management Journal*, 5(26), 12-46.
- Batista, A., and Francisco, A. (2019). Organizational sustainability practices: A study of the firms listed by the corporate sustainability index. *Sustainable Operations*, 5(2), 30-45.
- Beck, T., and Demirgüç-Kunt, A. (2018). *Access to finance: An unfinished agenda*. World Bank Economic Review, 300-360.
- Burch, S. (2018). Small businesses and sustainability innovation: confronting the gap between motivation and capacity. *Centre for International Governance Innovation*, 127(1), 1-12.
- Chimucheka, T. (2015). The contribution of entrepreneurship education in improving entrepreneurial skills and knowledge of SMME owners and managers. *Journal of Economics*, 1-90.
- Chimucheka, T., and Mandipaka, F. (2015). Challenges faced by SMMEs in the Nkonkobe Municipality. *The International Business and Economics Research Journal*, 1-45.
- Chinomona, R., and Pretorius, M. (2011). SME manufacturers' cooperation and dependence on major dealers' expert power in distribution channels. *South African Journal of Economics and Management Sciences*, 12(2), 170-187.
-

- Chinomona, R., and Hove, P. (2015). The influence of supplier involvement on communication, relationship longevity and business performance in SMMEs in South Africa. *Journal of Economics and Behavioural Science*, 1-90.
- Choi, J., Kim, S., and Yang, D. (2019). Small and medium enterprises and the relation between social performance and financial performance: Empirical evidence from Korea. *Sustainability*, 3(2), 10-26.
- Chun, H., and Shin, S. (2018). The impact of labor union influence on corporate social responsibility. *Sustainability*, 2(7), 35-67.
- Cuihong, Z. (2018). *Research on Sustainable Development Strategy of SME*, Beijing: Beijing University of International Business and Economics.
- Cycle, E. F. (2018). Policies for seed and early-stage financing STI Policy Paper: Polices for Seed and Early-Stage Finance. *Financing Challenges for Young Innovative Firms*, 2(6), 112-139.
- Dey, P., and Petridis, N. E. (2019). Environmental management and corporate social responsibility practices of small and medium-sized enterprises. *Clean Production*, 9(16), 67-80.
- Divya (2017). Importance and benefits of SPSS in research. [Online]
Available at: <https://www.writeneed.com/single-post/2017/07/05/Importance-and-benefits-of-SPSS-in-research> [Accessed 31 July 2018]
- Ehtesham, F. (2011). *Private sector engagement for poverty reduction: the experience of UNDP and lessons for G-20*. (M.A. Dissertation). New York: The City College of New York.
- Faizal, M., Zaidi, A., and Othman, S.N. (2012). Understanding the concept of dynamic capabilities by dismantling Teece, Pisano, and Shuen's (1997) definition. *International Journal of Academic Research in Business and Social Sciences*, 2(8), 367-378.
- Fatoki, O. (2011). The impact of human, social and financial capital on the performance of Small and Medium-Sized Enterprises (SMEs) in South Africa. *Journal of Social Science*, 29(3), 193-204.
- Gladwin, T., Kennelly, J., and Krause, T. (2018). Shifting paradigms for sustainable development. *Business Management Review*, 2(4), 1-30.
- Gizawi, N.E. (2014). The dynamic capabilities theory: assessment and evaluation as a contributing theory for supply chain management. [Online]. Available: https://essay.utwente.nl/65301/1/EI%20Gizawi_BA_MB.pdf. >Accessed: 15/02/2021.
- Guokun, Z. (2019). Science and technology constitute the primary productive force. *Science and Technology Innovation Herald*, 2(6), 20-35.
- Hahn, R. (2019). ISO 26000 and the standardization of strategic management processes for sustainability and corporate social responsibility. *Business Strategy*, 3(1), 20-30.
- Honglie, Z. (2019). Institution Character is Key to SME's Development. *Journal of Yunnan University of Finance and Economics*, 4(3), 1-25.

- Hosoda, M. (2019). Management control systems and corporate social responsibility: Perspectives from a small Japanese company. *International Journal for Business Operations*, 7(4), 30-67.
- Hove, P., Sibanda, K., and Poore, D. (2014). The impact of Islamic banking on entrepreneurial motivation, firm competitiveness, and performance in South African SMEs. *Mediterranean Journal of Social Sciences*, 1-165. 295.
- Kozlenkova, I. V., Samaha, S. A., and Palmatier, R. W. (2014). Resource based theory in marketing. *Journal of the Academy of Marketing Science*, 1-21.
- Kumar, K. (2015). Market orientation, organisational competencies, and performance: A empirical investigation of a path analytic model. *Journal of American Academy of Business*, 1-100.
- Langwell, C., and Heaton, D. (2016). Using human resource activities to implement sustainability. *Journal of Small Business Entrepreneurship Development*, 23(3), 1-230.
- Mafini, C., and Muposhi, A. (2017). The impact of green supply chain management in small to medium enterprises: cross-sectional evidence. *Journal of Transport Supply Chain*, 11, 1-90.
- Mago, S., and Toro, B. (2013). South African government support to SMMEs. The case of King William's Town Area. *Journal of Economics*, 1-28.
- Makadok, R. (2011). Toward synthesis of the resource based and dynamic capability views of rent creation. *Strategic Management Journal*, 1-200.
- Maloka, C. M. (2013). *The contribution of SMMEs towards Local Economic Development in Mankweng Township, Limpopo Province*. (Master of Administration in Development). University of Limpopo, Limpopo Turflop, 1-65.
- Masocha, R., and Fatoki, O. (2018). The role of mimicry isomorphism in sustainable development operationalisation by SMEs in South Africa. *Sustainability*, 1-16.
- Matsoso, M. L. (2014). *Performance measures in supply chain management of small manufacturing enterprises*. (Master of Technology. Cost and Management Accounting Dissertation). Cape Peninsula University of Technology, Cape Town, 1-78.
- Millicent, C., and Reginald, M. (2014). Challenges and key success factors of African descent foreign-owned SMEs in the Eastern Cape Province of South Africa: a case of selected towns. *Mediterranean Journal of Social Sciences*, 1-68.
- Moaisi, D. (2014). Factors affecting the growth of micro and small manufacturing enterprises in Botswana. (M.Tech. Dissertation). Stellenbosch. University of Stellenbosch.
- Moore, S., and Manring, S. (2019). Strategy development in small and medium sized enterprises for sustainability and increased value creation. *Journal of Clean Production*, 3(6), 20-38.
- Oluwajoba, I. (2019). Assessment of the capabilities for innovation by small and medium industry in Nigeria. *African Journal of Business Management*, 1(8), 60-90.
-

Pandey, B., and Pandey, M. M. (2019). *Research methodology: tools and techniques*. Romania: Bridge Centre.

Rogerson, C. M. (2013). *Tracking SMME development in South Africa: Issues of finance, training and the regulatory*. Urban Forum, 1-90.

Rothwell, R. (2018). Technology-Based Small Firms and Regional Innovation Potential: The Role of Public Procurement. *Journal of Public Policy*, 4(4), 37-62.

Saksonova, S. (2018). Foreign direct investment attraction in the Baltic States. *Journal: Business: Theory and Practice*, 2(15), 114-120.

Sachs, I. (2019). Transition strategies for the 21st century: Development and environment. *Foundation for Administrative Development*, 1(3), 16-45.

Terziovski, M. (2017). Innovation practice and its performance implications in small and medium enterprises (SMEs) in the manufacturing sector. *Strategic Management Journal*, 31(8), 70-82.

Tinoco, J. (2018). *Social Balance: An Approach to Transparency and Public Accountability of Organisations*. Brazil: Atlas.

Tornatzky, L., and Klein, K. (2017). Innovation characteristics and innovation adoption-implementation: a meta-analysis of findings. *IEEE Transport Engineering. Management*, 29(1), 28-45.

Venkatasubramanian, V., and Ramanakumar, K. P. V. (2018). *A comparative study on development of small and medium enterprises (SMEs) in Kanchipuram District*. The 3rd International Conference on Materials and Manufacturing Engineering, 1-8.

Wiese, J. (2014). *Factors determining the sustainability of selected small and medium-sized enterprises*. (M. Tech Dissertation). Potchefstroom. North-West University.

Xiaoying, Z. (2018). *Research on Sustainable Development of SME of China*. Changsha: Hunan Agricultural University.

Zeng, S., Xie, X., and Tam, C. (2017). Relationship between cooperation networks and innovation performance of SMEs. *Technovation*, 30(2), 80-102.

Zindiye, S. (2010). *An empirical investigation into the factors affecting the performance of small and medium enterprises in the manufacturing sector of Harare, Zimbabwe*. (M. Com. Dissertation). Alice. University of Fort Hare.

SSIRC 2023-024**VALIDATION OF VOLUNTEER MOTIVES SCALE WITHIN A COHORT OF SPORTS ORGANISATION VOLUNTEERS****L.F. Tshabalala**

Vaal University of Technology, South Africa

B.A. Mokoena

Vaal University of Technology, South Africa

ABSTRACT

In the past two decades, several researchers have applied volunteer motives frameworks in sports and community-related domains in ascertaining their volunteering motives. Although volunteering is regarded as a core component of sport service delivery and essential to the viability of the sport system in many sports organisations and communities, there is considerable debate about the underlying structure or dimensionality of volunteer motives. The primary objective of the study is to ascertain volunteer motives dimensions as perceived by sports organisation volunteers. A cross-sectional survey through a structured self-administered questionnaire was undertaken among 270 volunteers using a non-probability purposive sampling procedure. Variables that constituted sports organisations volunteer motives were operationalised through a literature review, including sports and recreational scales. Exploratory factor analysis was used to statistically aggregate the large number of observed measures (28 items) relating to volunteer motives into a smaller set of three unobserved (latent) variables called factors. These factors were labelled accordingly as altruistic values, social adjustment, and egoistic enhancement motives. Volunteering motives identified in the study need to be incorporated by sports organisation managers in their periodic measurement of volunteering. These motives can additionally serve to inform practitioners of how best they can support volunteers and enhance their commitment.

KEYWORDS: sports organisation; volunteers volunteer motives; cohort and validation.**1. INTRODUCTION**

Volunteering is a type of ‘serious leisure’, the characteristics of which include a need to persevere with the activity, the tendency to have a career in it, durable benefits, unique culture and participant identification (Parker, 1992). It is a formalised activity in which individual time and efforts are given freely without any remuneration for the benefit of other persons, from or with sports organisations (Gratton et.al.,2005). Of note is that volunteering is not a substitute for paid work as volunteers do not replace paid workers, i.e., they do not constitute a threat to the job security of a paid worker (Cordingly, 2000).

Sport volunteering is one of the most important types of volunteering activity in sports organisations (Hwang, 2010) involved in the successful implementation of sports’ developmental programmes at local, national, and international levels (Gratton, Shibli & Coleman, 2006). Sports volunteerism is

thus a human service delivery venture, which involves individual volunteers helping others in sports and receiving either no remuneration or being paid only their expenses (Taylor et al., 2003). These volunteers participate rather in roles undertaken to support, arrange or run organised sports and physical activity (Australian Bureau of Statistics, 2002).

Sports organisations around the world, regardless of size, tend to rely on sports volunteers for the efficiency and execution of their events (Downward & Ralston, 2005). Throughout the world, volunteers are utilised by various sports organisations for numerous events and therefore they have become a vital part of ensuring the efficiency of sports events in sports organisations (Schuyler, 2008). Additionally, sporting volunteers play a variety of essential roles, including chaperoning athletes and officials, fund-raising, administration, coaching, event planning, and transport, especially at the grassroots level (Cuskelly et al., 2006).

Whilst volunteers in sports organisations are considered a valuable resource, they are increasingly scarce (Jago et al., 2003) and despite recent advances in research on volunteer motivations, there is still considerable debate about the underlying structure or dimensionality of volunteer motives. Given the enormous contribution of volunteers in sports organisations, a better understanding of their motives is imperative for sport organisations to develop effective volunteer recruitment and retention strategies (Clary, 2004). Furthermore, identifying specific volunteer motives in sports organisations may provide not only theoretical and practical contributions to volunteerism in sports, but also invaluable insights into specific motives which influence volunteer commitment and satisfaction. In South Africa, very few research studies have examined sport volunteer motives such as Khoo, Surujlal and Engelhorn (2011) as well as Surujlal and Dhurup (2008). As a result, a gap remains, which warrants further research in this area of study within the South African context.

2. LITERATURE REVIEW

The literature review is focused on the underlying theory as well as the specific construct under investigation.

2.1 Underlying theories

The self-determination theory (SDT) is an approach to human motivation and personality that uses traditional empirical methods while employing an organismic theory that highlights the importance of a human's evolved inner resources for personality development and behavioural self-regulation (Ryan, Kuhl & Deci, 1997).

According to the SDT, autonomy, competence, and relatedness are three fundamental needs that underlie people's intrinsic motivation, or a motivational state in which an individual is energised to engage in a task because of some inherent satisfaction generated from the task itself (Deci, 1971). Intrinsic motivation is present when individuals do something for pleasure or enjoyment, whereas extrinsic motivation occurs when individuals do something because of external forces (Deci & Ryan, 2014). To this end, sports volunteers are motivated to act when their systems are aroused and driven towards a particular behaviour aimed at satisfying their desired goal (Giannoulakis, Wang & Gray, 2007). In summary, motivation is enhanced when contextual conditions allow volunteers

to feel that their actions are freely emanating from the self, affording people the possibility of developing competence, and supporting a sense of belonging with others in their environment.

2.2 Volunteer motives

Motivation is an activated internal need, leading to goal-directed behaviour to satisfy that need i.e., an inner state of arousal that denotes energy to achieve a goal (Hoyer & MacInnis, 2004). It is the driving force within individuals that impels them into action (Mallalieu, 2000) and the activation of internal desires, needs and concerns, which energises behaviour and sends the organism in a particular direction, which is aimed at satisfaction. (De Klerk & Tselepis, 2007). Clary and Snyder (1999) identified six primary motives for volunteering: protective motive (to reduce negative feelings); values (to express or act on important values); social (to strengthen social relationships); understanding (to learn about the world); career (to gain career-related experience); and enhancement (to enhance self-esteem). Other seminal work by Farrell et al. (1998) distinguished four categories of motives for volunteering in sports organisations, namely, purposive, solitary, external traditions, and commitments, whereas Knoke and Prensky (1984) identified three general motives for volunteering, namely, normative (altruism), utilitarian (self-interest), and affective dimensions. In addition, Fairley et al. (2007) describe nostalgia, camaraderie, and friendship as the key dimensions of sports volunteering motivation. What is clear from the above is that the dimensionality of the motives for volunteering varies across specific sports organisations and the nature of events.

3. METHODOLOGY

3.1 Research design

A descriptive research design was deemed fit for the study since it involves finding a larger population through the survey of a sample of that population (Leedy & Ormrod, 2021). The researcher opted for a quantitative research method because quantitative research is based on larger sample sizes to produce results which can be generalised to a wider population. The cross-sectional survey approach was selected to ensure reliability and the collection of homogenous data from all the participants.

3.2 Sampling and sample composition

The study sample consisted of both male and female volunteers in sports organisations under the auspices of the South African Football Association (SAFA), South African Sports Confederation and Olympic Committee (SASCOC) Athletes Association of South Africa (ASA), Cricket South Africa (CSA) and South African Rugby Union (SARU) in the Gauteng province. The sample size adopted for the study (N=350) was considered adequate to conduct multivariate statistics, as endorsed by Malhotra (2010).

The purpose of the study, availability of resources and type of research design followed influenced the choice of a sampling method. A nonprobability purposive sampling procedure was adopted to

avoid numerous biases associated with selecting sample members from a sample frame that do not participate in volunteering programmes.

3.3 Research instrument and data collection

The researcher made use of a self-administered structured questionnaire to collect data. Section A was aimed to solicit information on respondents' demographic information and comprised mainly of multiple-choice questions. Scale items to measure the motives for volunteering were adapted from scales developed by Wang (2004) and Giannoulakis et al. (2008). The items in this section were measured on a seven-point Likert-type scale that was anchored by 1=strongly disagree and 7=strongly agree to express the degree of agreement or disagreement to various statements. A separate section also solicited information on respondents' demographic profile and comprised mainly of multiple-choice questions.

The fieldwork was conducted in August/October 2021 after permission to conduct the study had been obtained from the participating sports organisation. During the collection of data, many ethical concerns such as the participants' right to anonymity were adhered to. The questionnaire was distributed to volunteers physically by the researcher and trained field workers at different identified sporting organisations in Gauteng province. Out of a total of 350 questionnaires distributed, 270 were useable in the final analysis (i.e., a response rate of 77% was recorded).

3.4 Statistical analysis

Data was captured on Microsoft Excel, whereby a coding book was established and then transferred to Statistical Package for Social Sciences (SPSS) version 26.0 for final statistical analysis.

4. RESULTS

4.1 Sample composition

The gender characteristics of the sample consisted of slightly more female respondents (n=137;50.7%) than male respondents (n=133; 49.3%). Many of the respondents were between 26 to 33 years of age (n= 91; 33.7%), followed by those who were between the ages of 34 to 41 (n= 71; 26.3%), followed by those who were between the ages of 18 to 25 (n= 66; 24.4%), and lastly by those who were between the ages of 42 to 49 (n= 42; 15.6%). Most of the respondents indicated a period of volunteering of more than two weeks (n= 223; 82.6%).

4.2 Reliability and validity

Cronbach's coefficient alpha (α) was used to assess the internal consistency of the research measures. The results of the Cronbach values reported in Table 2 ranged from 0.802 to 0.887, exceeding the minimum recommended value of 0.07, which attests that the scales were reliable. Face and content validity were tested through a review of the questionnaire by subject experts in the sport and recreation field. Construct validity was determined through the computation of the Cronbach alpha coefficient to assess the internal consistency of the related criterion variables.

4.3 Descriptive statistics

Table 2 indicates that all the mean scores returned for the factors were all above the score of five on the Likert scale (>5-<7), suggesting that the respondents recognise the significance of these volunteering motives within the sports organisations. The standard deviations were less than 1, therefore indicating that the mean values are a correct reflection of the majority average perceptions.

4.4 Exploratory factor analysis (EFA)

The Kaiser-Meyer-Olkin (KMO) measure and Bartlett’s test of sphericity preceded the factor analysis procedure to confirm whether the data were suitable for factor analysis. The KMO test yielded a sampling adequacy value of 0.856(>0.50) and Bartlett’s test displayed an approximate chi-square of 2158.458 (p=0.000) with 136 degrees of freedom (df) (Malhotra, 2010). Both results confirmed that the data is suitable for factor analysis. Thereafter, EFA through SPSS Version 26.0, with principal component analysis (as an approach that considers the total variance in the data) and varimax rotation (to minimise the number of factors that had high loadings) was performed to evaluate the essential dimensions of volunteering motives as perceived by respondents.

The total number of factors extracted were determined using three criteria, namely, factor loading (>0.50), the percentage of cumulative/total variance (>50%) and the eigenvalues (>1). The rotated factor matrix indicating the factors and their items as well as the factor loadings are shown in Table 1.

Table 1: Exploratory Factor Analysis Matrix

| Subscale items. | Factor loadings | Eigenvalue | Cumulative variance explained |
|---|-----------------|------------|-------------------------------|
| ALTRUISTIC VALUE | | 5.089 | 29.932 |
| Volunteering will help me to succeed in my chosen profession | .764 | | |
| Volunteering makes me feel needed | .761 | | |
| Volunteering allows me to explore different career options | .702 | | |
| Volunteering makes me feel better about myself | .694 | | |
| I can make new contacts that might help my business or career | .647 | | |
| I can learn how to deal with a variety of people | .647 | | |
| Volunteering is a way to make new friends | .638 | | |
| I feel compassion toward people in need | .621 | | |
| I am genuinely concerned about the group I am serving | .610 | | |
| I feel it is important to help others | .577 | | |
| SOCIAL ADJUSTMENT | | 3.211 | 48.793 |
| My friends volunteer | .954 | | |
| People I’m close to want me to volunteer | .933 | | |
| People I know share an interest in community service | .900 | | |
| Volunteering is an important activity for the people I know best | .770 | | |
| EGOISTIC ENHANCEMENT | | 1.501 | 57.621 |
| I am concerned about those less fortunate than myself | .815 | | |
| Volunteering makes me feel important | .782 | | |
| Doing volunteer work relieves me of the guilt over being more fortunate than others | .670 | | |

The final phase involved focusing on the naming of the factors based on the meanings of common variables that loaded on a specific factor. These factors were labelled accordingly as altruistic, social adjustment and egoistic enhancement motives.

Factor one labelled “*altruistic value*” has an eigenvalue = 5.089 and accounted for 29.932 % of the total variance explained by the construct. This factor consists of ten items that represent a person’s intrinsic beliefs in helping others and contributing to society because volunteerism, by its very nature, is prosocial and altruistic. A person with altruistic values tends to think about the welfare of other people, to feel empathy for them and to act in a way that benefits them. Thus, sport volunteering for a worthy cause, which provides people with an opportunity to express their humanitarian concerns and translates their deeply held values into action (Penner, 2002). Prior research on volunteerism suggests that the intention to volunteer is positively related to altruistic value, and volunteers often choose their voluntary acts without expecting a complete “quid pro quo” (Pulis & Hoyer, 2010).

The second factor labelled “*social adjustment*” has an eigenvalue = 3.211 and accounted for 18.891 per cent of the total variance explained by the construct. This factor comprises four items that consider how social adjustment reflects motivations regarding relationships with other people. Past research has provided consistent evidence that people consider perceived social adjustments when they form behaviour intentions (Clary, 2004). Furthermore, Clary, Snyder and Worth (2003) found social adjustment being significantly related to satisfaction with volunteering and intentions to volunteer.

The third factor labelled “*egoistic enhancement*” has an eigenvalue = 1.501 and accounted for 8.828 per cent of the total variance explained by the construct. This factor consists of three items that relate to volunteers’ needs for social interaction, interpersonal relationships, and networking. Clary (2004) found ego enhancement to be significantly related to satisfaction with volunteering and intentions to volunteer. Personal development thus represents one important aspect of egoistic motives that refers to a volunteer’s desire to receive self-oriented benefits on personal growth and learning of new skills (Penner, 2002; Smith, 2004). Volunteers seeking personal development value not only cherish the chance to gain new knowledge and experience but also the opportunity to challenge themselves and test their existing skills and abilities.

4.5 Assessment of the measurement model

After the extraction of the factors through an exploratory factor analysis procedure, confirmatory factor analysis (CFA) using AMOS 26.0 was performed to assess and validate the measurement model through indices recommended by Bagozzi and Yi (2012) as follows: chi-square X^2/df (<3.0); increment fit index (IFI >0.90); comparative fit index (CFI >0.90); Tucker-Lewis index (TLI >0.90); and the root mean square error of approximation. The chi-square recorded a value of 2.34 while IFI, TLI, CFI and RMSEA reported values of 0.93, 0.91, 0.93, and 0.07 respectively, which were all deemed to be satisfactory as they met the required threshold for fit measures (Bryne, 1998).

4.6 Correlation analysis

To establish the correlation between the sampled sport volunteers' motives, non-parametric Spearman correlation tests were calculated to assess the existence of such association. This procedure was adopted because the data was not normally distributed and thus violated the assumptions of parametric data (Field, 2005). The outcomes of the correlation analysis are shown in Table 2.

Table 2: Inter-construct correlations, descriptive statistics, and reliabilities

| Construct | F1 | F2 | F3 | MEANS | STD DEV | Cronbach ao |
|-----------|--------|--------|--------|-------|---------|-------------|
| F1 | 1.00 | .171** | .186** | 6.15 | 0.504 | .887 |
| F2 | .171** | 1.00 | .374** | 5.32 | 0.949 | .822 |
| F3 | .186** | .374** | 1.00 | 5.70 | 0.807 | .802 |

Key: F1 = Altruistic value F2 = Social adjustment F3 = Egoistic enhancement

**Correlation is significant at the 0.05 level (2-tailed).

The results of the inter-construct correlation analysis showed a significant weak positive association between altruistic value and social adjustment ($r=0.171$; $p<0.05$). These results suggest that a positive relationship exists between altruistic value and social adjustment as volunteers' motivation dimensions. Further analysis of the correlation matrix indicates a significant moderate positive association between social adjustment and egoistic enhancement ($r=0.374$; $p<0.05$), suggesting that a positive relationship exists between social adjustment and egoistic enhancement as volunteers' motivation dimensions. Finally, the results of the correlational analysis revealed a positive yet weak association between altruistic value and egoistic enhancement ($r=0.186$; $p<0.05$), suggesting that a positive relationship exists between altruistic value and egoistic enhancement as volunteer's motivation dimensions.

5. LIMITATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

The study was undertaken in sports organisations situated in the southern region of Gauteng in South Africa. The financial and time constraints as well as the logistical problems of the study also contributed to the limitations that resulted in the exclusion of the other sports organisations in other provinces in the sample. As a result, caution should be taken when interpreting these results as they cannot be generally accepted as completely relevant to broader geographic locations. In future, the study can be extended to other regions and provinces to undertake comparative studies in volunteers' motives dimension within a sport and recreation context.

Another limitation was the choice of using a mono method (quantitative stance) of data collection. It would be advantageous for future studies to utilise both quantitative and qualitative paradigms to generate insightful ideas and clarifications. The mixed method approach would allow garnering richer data and significantly support the findings of the study. Additionally, the non-probability convenience sampling technique adopted for the study was not appropriate to provide for an

objective valuation of the exactness of the sample finding. It is therefore recommended that probabilistic sampling methods be considered in future research endeavours in this context.

6. CONCLUSION

Sport volunteering for a worthy cause provides people with an opportunity to express their humanitarian concerns and translate their deeply held values into action. Moreover, motives have been identified as one of the crucial factors that influence volunteering in sports organisations. Consequently, sports organisations that focus on volunteering, in addition to the primary services offered, have the greatest opportunity of maximising current and longtime benefits. Overall, this study's measurement outcomes were acceptable in terms of reliability and validity, although, there is certainly a need for supplementary work to validate the instrument. The volunteering motives identified need to be incorporated by sports organisation managers in their periodic measurement of volunteering initiatives. These dimensions can additionally serve to inform practitioners of how best they can support volunteers and enhance their commitment.

REFERENCES

- Australian Bureau Statistics. (2002). *Involvement in organised sport and physical activity*. Canberra: Commonwealth of Australia.
- Bagozzi, R.P & Yam. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the Academy of Marketing Sciences*, 40(1), 8-34.
- Bryne, B.M. (1998) *Structural equation modelling with LISREL, PRELIS, and SIMPLIS: basic concepts, applications, and programming*. Mahwah, N.J.: Lawrence Erlbaum Associates.
- Clary, G. 2004. Volunteer sustainability: how non-profits can sustain volunteers' commitment. *Snapshots*, 36, 1-6. [Online]. Retrieved from: http://www.worldvolunteerweb.org/dynamic/infobase/pdf/2005/vol_sustainability.pdf. Accessed: 7/09/2019.
- Clary, E. & Snyder, M. (1999). The motivations to volunteer: Theoretical and practical considerations. *Current Directions in Psychological Science*, 8(5), 156-159.
- Clary, E. G., Snyder, M., & Worth, K. (2003). The volunteer organization environment: Key dimensions and distinctions. Report to the Aspen Institute Non-profit Sector Research Fund. Minnesota, Minneapolis
- Cordingley, S. (2000). The definition and principles of volunteering: A framework for public policy. In Warburton, J. & Oppenheimer, M. (Eds). *Volunteers and volunteering* (pp. 73-82). Sydney: Federation Press.
- Cuskelly, G. Hoye, R., & Auld, C. (2006). *Working with volunteers in sport: theory and Practice*. London: Routledge.

-
- Deci, E. L., & Ryan, R. M. (2014). Autonomy and need satisfaction in close relationships: Relationships motivation theory. *Human motivation and interpersonal relationships: Theory, research, and applications*, 53-73.
- Deci, E.L. (1971). Effects of externally mediated rewards on instruct motivation. *Journal of Personality and Social Psychology*, 18, 105-115. C
- De Klerk, H.M. & Tselepis, T. (2007). The early-adolescent female clothing consumer: Expectations, evaluation, and satisfaction with fit as part of the appreciation of clothing quality. *Journal of Fashion Marketing and Management: An International Journal*, 11(3), 413-428.
- Downward, P. & Ralston, R. (2005). Volunteer motivation and expectations prior to the XV Commonwealth Games in Manchester, UK. *Tourism and Hospitality Planning and Development*, 2(1), 17-26.
- Fairley, S., Kellett, P. & Green, B. C. (2007). Volunteering abroad: motives for travel to volunteer at the Athens Olympic Games. *Journal of Sport Management*, 21(1), 41-57.
- Farrell, J.M., Johnston, M.E. & Twynam, G.D. (1998). Volunteer motivation, satisfaction, and management at an elite sporting competition. *Journal of Sport Management*, 12, 288-300.
- Field, A.P. (2005) *Discovering statistics using SPSS*. (2nd ed.). London: Sage.
- Giannoulakis, C., Stotlar, D. & Chatziefstathiou, D. (2008). Olympic sponsorship: evolution, challenges and impact on the Olympic Movement. *International Journal of Sports Marketing and Sponsorship*, 9(4), 14-28.
- Giannoulakis, C., Wang, C.H. & Gray, D. (2007). Measuring volunteer motivation in mega-sporting events. *Event Management*, 11(4), 191-200.
- Gratton, C., Shibli, S., & Coleman, R. (2005). The economics of sport tourism at major sports events. In Hingham, J. (Ed.) *Sport tourism destinations. issues, opportunities and analysis* (pp. 233-259). Oxford: Elsevier Butterworth-Heinemann.
- Gratton, C., Shibli, S. & Coleman, R. (2006). The economic impact of major sports events: a review of ten events in the UK. *The Sociological Review*, 54(2 suppl), 41-58.
- Hoyer, W. & MacInnis, D. (2004). *Consumer behaviour*. Cengage Learning, Boston, Massachusetts, United States
- Hwang, J. (2010). Does sport really matter to volunteers? Implications from an empirical comparison between sport volunteers and non-sport volunteers. Retrieved from http://purl.flvc.org/fsu/fd/FSU_migr_etd-3376 Date of Access 20 January 2023.
- Jago, L., Chalip, L., Brown, G., Mules, T. & Ali, S. (2003). Building events into destination branding: insights from experts. *Event Management*, 8(1), 3-14.
- Khoo, S., Surujlal, J. & Engelhorn, R. (2011) Motivation of volunteers at disability sports events: a comparative study of volunteers in Malaysia, South Africa, and the United States. *African Journal for Physical Activity and Health Sciences*, 17(2), 356-371.
-

-
- Knoke, D. & Prenskey, D. (1984). What relevance do organization theories have for voluntary associations? *Social Science Quarterly*, 65, 3-20.
- Leedy, P.D., & Ormrod, J.E. (2021). *Practical research: planning & design* (12th ed.). Essex, UK: Pearson.
- Malhotra, K.N. (2010). *Marketing research: an applied orientation*. (6th ed.), Upper Saddle River: Pearson Educational International.
- Mallalieu, L.A. (2000). An examination of the influence of consumer motivation on salesperson appraisal and emotional response to salesperson behavior. *Virginia Polytechnic Institute and State University Blacksburg, Virginia*
- Parker, S. (1992). Volunteering as serious leisure. *Journal of Applied Recreational Research*, 17(1), 1-11.
- Penner, L.A. (2002). Dispositional and organisational influences on sustained volunteerism: an interactionist perspective. *Journal of Social Issues*, 58(3), 447-67.
- Pulis, L. & Hoyer, R. (2010). The relationship between sport event volunteers' commitment, satisfaction, and perceived organisational support. Oral session presented at the 18th annual conference of European Association for Sport Management, Prague.
- Ryan, R.M., Kuhl, J. & Deci, E.L. (1997). Nature and autonomy: organisational view of social and neurobiological aspects of self-regulation in behaviour and development. *Development and Psychopathology*, 9, 701-728.
- Schuyler, B.E. (2008). *An examination of the motivations of sporting event volunteers within intercollegiate athletics at Clemson university*. Unpublished MSc. Dissertation. Clemson University – South Carolina
- Smith, J. (2004). What they really want: Assessing psychological contracts of volunteers. *The Journal of Volunteer Administration*, 22(1), 18-21.
- Surujlal, J. & Dhurup, M. (2008). Volunteers' perceptions of benefits derived from volunteering: an empirical study. *South African Journal for Research in Sport, Physical Education and Recreation*, 30 (1),105-116.
- Taylor, P., Nichols, G., Holmes, K., James, M., Gratton, C., Garrett, R., Kokolakis, T., Mulder, C. & King, L. (2003). Sports volunteering in England, 2002 Summary Report. Sport England. *Work and Organisational Psychology*, 17, 315-326
- Wang, P.Z. (2004). Assessing motivations for sports volunteerism. *Advances in Consumer Research*, 31, 420-425.

SSIRC 2023-025**DEVELOPMENT OF ENTREPRENEURIAL COMPETENCIES INTO VIABLE ENTERPRISES ACCORDING TO EDUCATION 5.0 IN ZIMBABWEAN UNIVERSITIES****A.Ndudzo**

Lupane State University, Zimbabwe

S. Ganyani

Lupane State University, Zimbabwe

C. Ndlovu

Lupane State University, Zimbabwe

S. Nondo

Lupane State University, Zimbabwe

ABSTRACT

Integrating entrepreneurship with education has been necessitated by numerous global challenges promoting innovation and industrialisation. The main objective of the study was to investigate the nurturing of scientific innovations from incubation to fruition and to determine their impact in industry. A qualitative study approach was adopted using the descriptive survey design. The study population comprised of lecturers and students from the faculties of Agricultural Sciences, Applied Sciences, Humanities and Engineering within different Zimbabwean universities. Data were collected through document analysis was performed through reviewing of course syllabi, synopses, journals, blogs, Facebook, newspapers and reports, conversation analysis, semiotics and grounded theories were the methods used on document analysis. Open ended interviews were conducted which are unstructured format which allowed the researchers to produce a wealth of valuable data and observations. Data was thematically analysed. Findings of the study showed that the development of entrepreneurial competencies in students is one of the most viable means of societal resilience from the identified challenges. The Zimbabwean universities curriculum, Education 5.0, includes innovation and industrialisation as part of its mandate. This has led to the conception and birth of various innovation hubs at different universities throughout the country. The main thrust of the innovation hubs is to come up with research that produces viable products and services which links universities with industry. The promotion of economic growth, fighting unemployment and creating social capital were some of the most cited reasons for entrepreneurship education. Therefore, given the fundamental importance of entrepreneurs, university authorities must not only reflect on the careers of their students and on how they produce more student entrepreneurs. Rather, authorities must reflect on what universities can do to help student entrepreneurs in achieving personal well-being to be competitive in the global business village. Educational innovations can open the doors for various opportunities by helping businesses keep up with current trends.

KEYWORDS: scientific, innovation, entrepreneurship, Education 5.0, competencies, industrial enterprises

1. INTRODUCTION

For a variety of social and economic factors, the idea of combining entrepreneurship with education has grown in recent years. The attainment of sustainable development goals has been hampered by widespread problems such as poverty, ongoing natural disasters, climatic change consequences, and disease. In this light, one of the most practical ways to increase society resilience from these ills is through the development of entrepreneurial competencies in pupils (Gorgievski & Stephan, 2016; Gorlewicz & Jayaram, 2020; Larsen, 2022). In support of this effort, some of the top justifications for entrepreneurship education include fostering economic growth, combating unemployment, and building social capital (Grivokostopoulou *et al.*, 2019).

It is becoming more crucial for academic institutions to actively contribute to the technological, social, and economic development of societies. Innovations in education improve the nature, creativity, and design-thinking processes in modern corporate operations (Sinell *et al.*, 2018; Garnsey, 2007). Innovations in education can help businesses stay on top of the latest trends, which can lead to a variety of opportunities. Therefore, it is imperative to increase the possibility that innovative research will be successful and have an impact. One way to bring about this improvement in academics is through entrepreneurialism (Laing *et al.*, 2017). The support for and prevalence of academic entrepreneurship are still limited despite this apparent progress, with scientists reporting several barriers to participating in entrepreneurial activities (Sinell *et al.*, 2018) and new scientific ventures facing several obstacles to achieving economic sustainability and growth (Soetanto & Jack, 2016).

Zimbabwe has experienced some reforms in its education system which can be summarised as pre-colonial, colonial, and post-colonial education. Education 3.0 and Education 5.0 are two further subcategories of post-colonial education. It was necessary to transition from Education 3.0 to Education 5.0 to equip university students for job creation rather than job seeking (Kanyongo, 2005; Muzira & Bondai, 2020). This would therefore assist in preparing university students with entrepreneurial abilities that would improve the nation's unemployment issue (Nyota & Mapara, 2008; Keche, 2021). An effective strategy to promote academic involvement in commercialization activities and assist universities and other organizations to increase the productivity of scientific and technological research, is to nurture diverse and resource-rich entrepreneurial ecosystems with adequate infrastructure and support (Hayter *et al.*, 2018, Wright *et al.*, 2017).

2. LITERATURE REVIEW

According to Etzkowitz (2003), the triple helix model of academia-industry-government strategic interactions calls for policies intended to strengthen university-industry ties and to encourage the commercialization of university-generated technologies, as shown in **Figure 1**. These policies are necessary to effectively promote innovation and economic development. The government must act as a public entrepreneur and venture capitalist in addition to fulfilling its regular regulatory duties

for the entrepreneurial university (Etzkowitz, 2003a). In this regard, governments ought to support this academic revolution as a means of promoting economic development, considering the evolving dynamics between knowledge providers and consumers (Guerrero & Urbano, 2017).

There is a need for a progression of interactions involving the numerous and controlled activities of three vertices of society, including the government, the productive structure, which includes both government-owned and privately held businesses, and the science-technology infrastructure, which includes universities and public and private research and development facilities (Etzkowitz & De Mello, 2004). The triangle of collaborative economic activity is made up of these three main elements. According to Etzkowitz & Klofsten (2005), the Hybrid Triple Helix Model is characterised by the following:

- In a knowledge-based society, the university should play a significant role in innovation on par with business and the government.
- A shift toward cooperative ties between the three main institutional sectors, where innovation policy results from their interactions rather than from governmental prescription.
- Each institutional area assumes the role of the other in addition to performing them.
- customary duties (Etzkowitz & Klofsten, 2005).

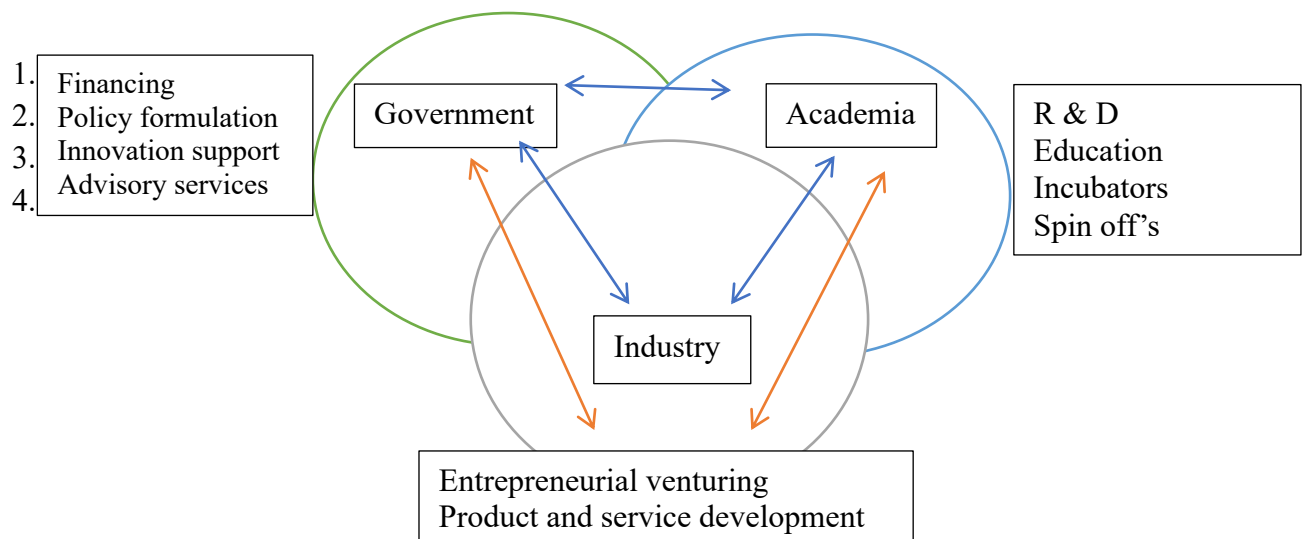


Figure 1. The Triple Helix model of innovation (Adapted from Etzkowitz & Zhou, 2017).

In the capitalization of knowledge, the Triple Helix model emphasizes the significance of academia. Universities are altering their missions, forging new connections with business, and growing more entrepreneurial in this dynamism new environment (Etzkowitz & Leydesdorff, 1995). This new kind of institution is described by Etzkowitz *et al.* (2000) as the union of scholarly and entrepreneurial interests, applied and fundamental research, and instruction. All three sectors will be able to actively engage and work together in this approach to foster robust innovation activities. They will all benefit from one another in ways that will enable them to accomplish their shared

long-term strategic objectives. According to Etzkowitz (2003), universities must be the primary forces behind the creation of the Triple Helix paradigm.

2.2. The psychology of instilling entrepreneurship

Higher education institutions are driven to develop educational frameworks to successfully convey entrepreneurial competencies given the hope in entrepreneurship education. Psychological principles have a significant impact on successful entrepreneurial endeavors because of the emphasis on understanding the drivers of entrepreneurship career, choice, and success (Gorgievski & Stephan, 2016; Chan *et al.*, 2018). Psychologists spend a lot of time dissecting and analyzing entrepreneurs' behaviors and actions at the intra-individual level because of this (Gorgievski & Stephan, 2016; Gorlewicz & Jayaram, 2020). The primary objective of using psychology is to foster entrepreneurial skills by creating a curriculum that enables pupils to have a particular worldview that stimulates positive behavioral qualities (Hahn, 2020). Therefore, it is essential for students to have an entrepreneurially oriented cognitive orientation if they are to build these competencies.

Therefore, it becomes crucial in entrepreneurship for students to develop a mentality and skill set that would enable them to recognize challenges and find creative solutions to them (Gorlewicz & Jayaram, 2020; Singh & Sharma, 2018). A curriculum that gives students the chance to connect with various corporate environments can help pupils develop a growth attitude. Students are given a growth/global mentality by utilizing teaching strategies that consider many contexts while also reflecting the complexity of variety and the unpredictability of decision-making (Chan *et al.*, 2018). The foregoing discussion points to the fact that universities need to consider psychological principles in enhancing students' entrepreneurial competencies for the sustenance of human life.

2.3. Entrepreneurship and industry: How educational innovations can be translated into viable entrepreneurial enterprises in business.

It is asserted that the effectiveness and speed with which new knowledge is incorporated into business and industrial practices has an impact on successful entrepreneurship. Due to its importance for development, it is significant for Small and Medium-Sized Enterprises (SMEs) in general (Sebikari, 2019). However, Zimbabwe has very poor entrepreneurship performance. Entrepreneurial performance is significantly impacted by a lack of entrepreneurial capital, entrepreneurial knowledge, and entrepreneurial capacity. It is acknowledged that entrepreneurship is crucial for small businesses (Ligthelm, 2008; Kongolo, 2010; Sebikari, 2014b).

Educational innovations can be transformed into workable entrepreneurial ventures in industry through internal knowledge investment and external knowledge collaboration (Cassiman & Valentini, 2016; Belitski *et al.*, 2019). To bring new goods, services, systems, operational and manufacturing processes, markets, and technology, entrepreneurs must be inventive and leverage the knowledge they gain from educational advances (Boldureanu *et al.*, 2020). They bring change and vitality to the economy by using the innovation systems' resources and ideas.

3. METHODOLOGY

3.1 Research design

The study used a qualitative research design, which concentrates on gathering and examining textual, observational data and verbal data (Jansen & Warren, 2020). The descriptive survey design was employed in this study to collect data on the potential of scientific advancements to meet the requirements of the Education 5.0 project. It entails describing, documenting, analyzing, and interpreting the nature, composition, or processes of phenomena as they currently exist. Document analysis was a crucial component of the research design. It involved the systematic examination and interpretation of course synopses and course syllabi from each program under study. The purpose of document analysis was to determine whether these educational materials incorporated any entrepreneurship courses or content related to scientific advancements. This method allowed researchers to extract textual data from documents, such as course descriptions, objectives, and content outlines. The research design's strength lay in its astute amalgamation of the qualitative descriptive survey framework with the rigorous and systematic practice of document analysis. This comprehensive approach facilitated an in-depth exploration of the present landscape pertaining to the fusion of scientific advancements and entrepreneurship education within the overarching framework of the Education 5.0 project. Importantly, it allowed for a holistic investigation that considered not only the perspectives and insights of key stakeholders but also the concrete and tangible evidence embedded within the educational materials themselves, aligning with the guidelines and insights proposed by Jansen & Warren (2020).

3.2 Sample method

In this study, a purposive sampling method was employed. Purposive sampling involves the intentional and selective recruitment of research participants based on their specific capacity to provide insights into the themes, concepts, or phenomena under investigation (Taderhoost, 2016). The objective was to strategically choose participants who could shed light on the integration of entrepreneurship education and scientific advancements within the context of Zimbabwean universities. The target population for this research comprised lecturers and students from various universities in Zimbabwe, chosen for their unique roles and perspectives within the context of entrepreneurship education and research. The purposive sampling strategy aimed to capture a diverse and representative group of individuals who could offer valuable perspectives on the integration of entrepreneurship and scientific advancements in higher education.

3.3 Research instrument

Informed consent was sought prior to commencement of each interview. The interview questions in this study focused on topics related to the impact and effectiveness of Education 5.0, particularly in the context of entrepreneurship education and scientific advancements within Zimbabwean universities. The questions were carefully designed to elicit detailed and open-ended responses from the participants, allowing them to express their experiences and perspectives authentically. The formulation of these questions was influenced by established theories and research objectives. The interview questions covered a range of key areas including the role of entrepreneurship education, integration of scientific advancements, Education 5.0 impact on students, challenges, and

opportunities as well as overall effectiveness. The interview questions were carefully crafted to be open-ended, allowing participants to express their viewpoints freely and share their unique experiences. Open-ended questions encourage detailed responses and offer participants the flexibility to express their thoughts without being limited by predetermined answer options. The probing technique was also employed when necessary to delve deeper into specific topics or to clarify participants' responses. The absence of leading questions ensured that the responses were unbiased and genuine, contributing to a more authentic exploration of the research questions. This qualitative approach aimed to capture the rich and diverse experiences of the participants and identify common themes and patterns that emerged from their narratives (Jansen, 2021).

3.4 Data collection

In this research, data collection was a multifaceted process that encompassed various methods, including interviews, non-participant observations, and document analysis. Interviews were a pivotal component of data collection, serving as a primary means to obtain qualitative insights from participants. Through interviews, the researchers engaged directly with faculty members, Directors of Research and Innovation, and students to understand their experiences, perceptions, and viewpoints regarding entrepreneurship education and the integration of scientific advancements. Interviews allowed participants to articulate their thoughts, experiences, and opinions, enriching the qualitative data with their unique perspectives. Non-participant observations allowed researchers to gain insights into real-world practices and interactions related to entrepreneurship education and scientific advancements within university settings. Document analysis, on the other hand, provided tangible evidence from course materials, syllabi, and outlines, offering a structured and documented perspective on the integration of entrepreneurship education.

3.5 Data analysis

In this study, data analysis encompassed various methods tailored to the specific data sources, including document analysis, key informant interviews, and non-participant observations. Each data source required distinct approaches for cleansing, processing, and extracting pertinent information. Initially, the collected documents were reviewed for relevance and completeness. Any extraneous or irrelevant information was excluded from the analysis. Document analysis required a systematic coding process. Relevant sections of the documents, such as course descriptions, objectives, and content outlines, were coded based on the presence or absence of entrepreneurship-related content and scientific advancements. Raw interview data was transcribed and cleaned to ensure accuracy and clarity. A qualitative coding approach was employed to analyse interview data. The process involved identifying key concepts, ideas, and statements related to entrepreneurship education and scientific advancements. Codes were grouped into overarching themes, such as the impact of entrepreneurship education on students or challenges in integrating scientific advancements. Thematic presentation allowed for a structured and comprehensive analysis of interview data. Observational data was recorded systematically, including notes on activities, behaviours, and interactions observed during the research. The recorded observational data was

interpreted to identify patterns, trends, or noteworthy behaviours that shed light on the research topic. Observational findings were integrated into the overall analysis.

4. RESULTS AND DISCUSSION

4.1. Demographic data

There were 49 males (58%) and 35 females (42%). This shows that there is a gender imbalance in terms of educators and students at the universities. The distribution of age shows that there were 61 respondents (72%) in the 25-39 years' interval; 20 respondents (24%) in the 41-54 years' interval and 3 respondents (4%) in the 55 + years interval. This distribution shows that there are more young educators at the university than those more senior in age. Education 5.0 has an element of innovation which young people are more interested in than the aged ones. According to the education level of lecturers 24 respondents (62%) hold Masters' degrees and 15 respondents (38%) are PhD holders. These findings show that lecturers at the universities are qualified people since the minimum qualification of an educator at a Zimbabwean university is a Masters' degree. The Faculty of Commerce was excluded since their inclusion would defeat the purpose and objectivity of the study.

4.2 Document analysis

The analysis of syllabi for various academic programs aimed to assess their compliance with the regulations set forth by the Zimbabwe Council for Higher Education (ZIMCHE), particularly regarding the inclusion of entrepreneurship components (ZIMCHE Regulations, 2021, page 36). Specifically, the evaluation focused on the inclusion of entrepreneurship components within the curricula of different faculties in the following universities Great Zimbabwe University, Midlands State University, University of Zimbabwe, Marondera University of Agricultural Sciences and Technology, Chinhoyi University of Technology, Africa University Manicaland State University of Applied Sciences and Lupane State University under study. The findings revealed that all faculties examined in the study were aligned with the current ZIMCHE requirements, which stipulate that entrepreneurship modules are mandatory subjects across diverse disciplines. In this comprehensive review of academic program syllabi, it was found that all faculties across the selected universities were aligned with the current ZIMCHE requirements pertaining to entrepreneurship education. One prominent feature observed was the incorporation of entrepreneurship modules as compulsory subjects across a wide range of disciplines and faculties.

For example, within Lupane State University, this commitment to entrepreneurship education was evident in various faculties, including the Faculty of Agricultural Sciences and the Faculty of Engineering. Here, students were mandated to undertake specific entrepreneurship-related courses as part of their undergraduate studies. These compulsory courses included:

- **Agribusiness and Entrepreneurship:** This course equips students in agricultural disciplines with the knowledge and skills needed to navigate the business aspects of agriculture, fostering entrepreneurship in the agricultural sector.

- Agricultural Enterprise Management and Entrepreneurship: Designed to instill entrepreneurial thinking and management skills among students pursuing agricultural studies, this course emphasizes the entrepreneurial aspects of agricultural enterprises.
- Social Issues and Entrepreneurship: This unique course explores the intersection of social concerns and entrepreneurship, encouraging students to address societal challenges through entrepreneurial approaches.
- Business Entrepreneurship: Offering a broad understanding of entrepreneurship principles and practices, this course was designed to cater for students from various academic backgrounds.
- Business in Biotechnology: This specialized course focuses on the entrepreneurial dimensions of biotechnology, fostering innovation and business acumen within the field of biotechnology.
- Technopreneurship: This course emphasizes entrepreneurship in the context of technology and innovation, equipping students with skills to thrive in technology-driven industries (ZIMCHE Regulations, 2021, page 36).

Students are exposed to entrepreneurial practices with an emphasis on learning how to generate business ideas, how to evaluate their potential, and how to recognize the barriers to success. Though entrepreneurship modules are being taught, there are still some challenges being faced. Capital to finance students' innovations and ventures is a big challenge. Funding for start-up is not available and this is a major drawback. Universities should institute a culture of innovation and entrepreneurship. There is a need for cultural change.

4.3. Thematic analysis of responses from interviews

Theme 1: University's response to the 5.0 initiative

Responding to the question on how their universities have responded to the 5.0 initiative, participants indicated that their institutions have responded positively. This was aptly captured by one participant who echoed,

....to drive the innovation and industrialization an Innovation and Industrialisation Directorate has been established and resources have been put into it both financial and human and will be expanded going forward (Response A).

A student respondent further concurred.

....it has established clothing and textiles factory producing academic dress, masks, uniforms; It is producing sanitizers; It is constructing a Hub; It has a radio station; It is funding research (Response B).

This was corroborated by the other participant, who intimated that,

...it has created an agricultural park, innovation hub and has equipped them with facilities and equipment. Additionally, it has recruited qualified personnel and has placed emphasis on practical modules (Response C).

.... They want to set up an agricultural hub, this most likely will be the research centre (Response D).

...my university has instituted several projects done by staff and students across faculties. These projects include sanitizer and disinfectant production; garment construction; indigenous food nutrition and small grain crop production and bottled water production (Response E).

...We were provided with laptops, they built innovation centres, every researcher has access to research board grants every 2 years, we run Technovation expos (Response F).

Findings of the study show that most of the universities under study have adopted and embraced the Education 5.0 initiative. This is shown by the quality of projects and products as well as the services being offered by these institutions. Most of the innovations that have reached fruition are scientific in nature hence scientific innovations can help satisfy the mandate of innovation and industrialisation. Nowadays the economic and social changes in society show the importance of developing entrepreneurship and creativity skills (Trek, 2015). The skills acquired will help assist the graduate to be an employer and job creator. The universities, as mentors, and the successful entrepreneurs, as role models for students, can play an important role in the entrepreneurial education of the young and in enhancing their entrepreneurial spirit (Urbano *et al.*, 2017).

Theme 2: The necessity of entrepreneurial skills in promoting Education 5.0

When asked about the necessity of entrepreneurial skills in promoting education 5.0, respondents showed that entrepreneurial skills are indispensable for the success of this education initiative. In line with this argument, faculty members argued,

.... most programmes have an entrepreneurship module mandatory put (Response A).

.... Yes, they are indispensable because skills are necessary for innovation, technology and production of goods and services (Response C).

.... Yes, they are there, especially when we look at the industrialization part (Respondent D)

The student participant underscored the same view,

Yes, these skills are very important since at the end of the course, graduates would be expected to create jobs for others and not to look for employment (Response E).

It is clear from the responses that the success of education 5.0 is hinged on the teaching of entrepreneurial skills. To this end, the other participant echoed,

.... entrepreneurial skills are essential, especially when we look at the industrialization part (Response F).

The findings from this study revealed that the success of education 5.0 is greatly influenced by the teaching of entrepreneurial skills. This is supported by the programmes regulation documents which emphasise the teaching of entrepreneurial skills. This is in line with literature that underscores the need for universities to reflect on their careers and on how they produce more student entrepreneurs and to help them in achieving personal well-being (Hahn, 2020). In support of the findings, the Triple Helix model emphasizes the importance of academia in the capitalization of knowledge in this dynamic new environment, which has seen universities changing their mission, establishing new relationships with industry, and becoming more entrepreneurial (Etzkowitz & Leydesdorff, 1995).

Theme 3: Entrepreneurial education in universities

Responding to the question on whether the university has other entrepreneurial related modules, participants indicated that all university modules have an entrepreneurial component. This is well captured by one participant who argued,

.... every undergraduate programme has entrepreneurship module (Response A)

.....Yes, there is industrial attachment and venture creation modules which are exposing students to learn by doing exhibitions. On average there are three modules per programme (Response C).

Another participant concurred,

..... Yes, entrepreneurial skills are catered for in all modules offered at my university. So, all programs do offer entrepreneurship (Response E).

The above responses were corroborated by the participant who echoed,

.... Yes, for the currently introduced programmes, one module per programme (Response F).

From the findings of this study, universities are making a great effort in exposing students to entrepreneurial skills in almost all programmes. It can therefore be inferred that university environments offer fertile ground for the development of the entrepreneurial inclined mindset. This is in line with the programme documents availed, which met the ZIMCHE requirement of having an entrepreneurial component. The exposure to entrepreneurial skills is imperative in developing a positive psychological frame of mind in students for the development of behaviours that promote entrepreneurship (Mustafa *et al.*, 2016; Maydiantoro *et al.*, 2021).

Theme 4: Role of entrepreneurship in job creation

...have financial literacy, marketing, business planning and accounting components (Response A).

...venture creation requires students start companies and run them. It develops entrepreneurial intention in students and inoculates skills and knowledge on how to identify business opportunities, assess them and register formal companies. Industrial attachment orients students in work environments in which they v

.... the modules are designed to expose the student to the business world and to teach the student to implement business plans in their science fields (Response F).

Findings show that the modules assist students to start their own business enterprises and to be job creators. This also will contribute towards realization of the country's vision of achieving the middle-income status by 2030 (Murwira, 2019). Entrepreneurship and Financial management module expose the learners to various business models and financial management systems that can be used to start and sustain business projects.

Theme 5: Entrepreneurial skills exposure

.... there is industrial exposure 3rd year (Response A).

.... through practical modules such as agriculture sciences and research nwhich at times they fund (Response B).

....my university allows learners to have practical visits to industries or companies for them to get acquainted with what is needed when one is to be involved in business (Response C).

Along with teaching, research teams and entrepreneurship instructors have recently assumed a crucial role in supporting and promoting the next generation of entrepreneurs. They accomplish this by supporting trainees at the various commercialization stages and fostering the conditions necessary for their high-tech start-ups to flourish in a thriving, well-connected innovation community (Engel *et al.*, 2016). With the help of specialized and adaptable structures like liaison and technology transfer offices, incubators, accelerators, and industrial parks that provide access to mentoring, shared facilities, services, and connections while remaining close to research centers, high-tech start-ups can overcome some of the obstacles they face in the early stages of the venture's development. Legal and helpful internal policies, such as the preservation of confidential information and innovations and the encouragement of an entrepreneurial culture within the university, can help close the gap between the academic and industrial environments. As a result, more people will be aware of the possibility of commercializing research inventions (Grimaldi *et al.*, 2011).

Theme 6: Is your university doing enough on education 5.0 in the area of entrepreneurial skills development? What else can be done?

.... more can be done, availing more resources for practical learning and seed money for students with viable business plans (Response A)

.... I think the University is not doing enough; Lecturers could be given entrepreneurial skills through training and their research projects being funded (Response B).

.... there are no practicals involved which makes this education 5.0 biased (Response C).

.... They need to assist learners to source funding to start up projects or even to source land to start up something (Response D).

.... they encourage students to start their own small businesses. With the currently prevailing economic situation universities are trying their level best to develop manpower with entrepreneurial skills (Response F).

.... encouraging the students to patent and commercialise their innovations (Response G).

Additionally, there is a growing consensus that certain entrepreneurial competencies, such as learning agility, creativity, willingness to accept risk, and problem-solving in a complex environment, are teachable despite the ongoing discussion of whether entrepreneurship can be taught (Nabi *et al.*, 2017; Engel *et al.*, 2016). More specifically, through practically oriented teaching methods, action-based learning, and actual entrepreneurial experiences, entrepreneurial learning should primarily be experiential in character (Nabi *et al.*, 2017). In this regard, pitch, business concept, and start-up competitions have grown in popularity as a way for aspiring entrepreneurs to be sufficiently motivated as well as test and validate their premises in a welcoming environment. They have been shown to be rich learning environments that are suitable for developing and enhancing the competencies of entrepreneurs (Passaro *et al.*, 2017).

Theme 7: Innovation hubs

- Which types of projects are being incubated and what are the chances of these reaching fruition?

...Agro Innovation projects, Social Innovation, Commerce, and Engineering e.g. IT. Some of them have already produced goods and services that are available on the market, and some will be launched at ZITF. Some are just starting, and we will see results in the medium to long-term (Response A).

...Production of improved breeds of small grains; germplasm collection and improvement (Response B)

...Manufacturing and technology development projects; Chances are not huge as cultural, structural, and administrative changes have not been made (Response C).

.... Projects to be incubated are those generated in the departments of the university (Response E).

... *Genetic testing center, Biofertilizer production (Response F)*

... *Sanitizer, mask, and PPE production (Response G)*

Most of the universities already have innovation hubs and holistic centres. Chinhoyi University of Technology's artificial insemination project launched is an example of the positive effects of implementing Education 5.0 (Ministry of Higher and Tertiary Education, Science and Technology Development, 2018b). Heritage-based education is meant to use Zimbabwe's readily available agricultural, climatological, and mineral heritage for national development (Tirivangana, 2019). This results in job creation that leads to the lowering of unemployment rates. Education should help solve the existing societal and national problems; hence, it becomes apparent that the country's Higher and Tertiary Education system must be transformed to meet the current developmental needs of the country (Ministry of Higher and Tertiary Education, Science and Technology Development, 2018c; Murwira, 2019).

- What is the involvement of the student in the activities taking place in the innovation hubs?
.... *There are drivers/implementers of most projects; lecturers cannot work alone (Response A).*

... *Students are not much involved given the online lectures. Their involvement is very minimal. There is a need for improvement in student participation in the hub (Response C).*

Response F: Students are involved through research projects that feed into the big projects.

- Which challenges are being faced in trying to transform innovation into industrial products and services?

Response A: Lack of resources and startup capital; lack of infrastructure; lack of cooperation; lack of patenting and intellectual property rights

Response G: I think the university should go an extra mile in assisting students to be innovators by funding the innovations. Currently, some innovations are not fully funded.

Physical infrastructure and financial resources were rated negatively for the adoption of Education 5.0. The absence of adequate physical infrastructure and financial resources to support Education 5.0 adoption is expected since Zimbabwe, as a nation, is undergoing an economic struggle. Capital investments need huge financial resources which are difficult to avail with limited resources available. Importantly, Engel (2014) also discusses government contributions in safeguarding the rule of law. A stable environment and context are created by mechanisms to prevent bribery and corruption, adherence to contracts and intellectual property rights, principles of transparency and impartiality, fair and ethical practices, and encouraging entrepreneurs and investors to engage in technology commercialization activities.

5. CONCLUSION

In conclusion, this study has delved into a critical aspect of education in the 21st century, aligning it with the dynamic concept of Education 5.0. The transformation of scientific educational

innovations into viable enterprises represents a fundamental shift in the educational paradigm, emphasizing not only knowledge acquisition but also the practical application of that knowledge to create real-world impact. This research has explored the specific context of Zimbabwean universities, shedding light on the challenges and opportunities they face in fostering entrepreneurial competencies among students and lecturers. Through a thorough examination of the current state of educational programs, course offerings, and the role of research and innovation directors, this study has provided valuable insights into the existing landscape. It has highlighted the need for a holistic approach that integrates entrepreneurship into the curriculum, equipping students with the skills and mindset needed to become innovative and entrepreneurial leaders.

Furthermore, this research underscores the importance of collaboration between academia and industry to bridge the gap between theoretical knowledge and practical application. It has emphasized the role of research and innovation directors in driving this transformation by nurturing a culture of innovation within universities. As Zimbabwe strives for economic growth and development, harnessing the potential of its youth through entrepreneurial education is paramount. This study has contributed to the ongoing dialogue on the evolution of education in the country, advocating for a shift towards a more dynamic and experiential model that aligns with the principles of Education 5.0. In essence, this research serves as a call to action for Zimbabwean universities and policymakers to prioritize the development of entrepreneurial competencies among students and lecturers. It is through this transformation that the nation can unlock its full potential and drive innovation, economic prosperity, and sustainable development in the years to come.

REFERENCES

- Belitski, M., Caiazza, R. & Lehmann, E. E. (2019). Knowledge frontiers and boundaries in entrepreneurship research. *Small Business Economics*, 1-11.
- Boldureanu, G., Ionescu, A M., Bercu, A., Bedrule-Grigoruta, V. B. and Boldureanu, D. (2020). Entrepreneurship education through successful Entrepreneurial Models in Higher Education Institutions. *Sustainability* 12, 1267. DOI: 10.3390/su12031267.
- Chan, K. C., Fung, A., Fung, H. G. & Yau, J. (2018). A Conceptual Framework for Instilling a Global Mindset in Business Students. *Journal of Teaching in International Business*, 4-19.
- Cassiman, B. & Valentini, G. (2016). Open innovation: are inbound and outbound knowledge flows complementary? *Strategic Management Journal*, 37.
- Engel, J. S. (2014). *Global Clusters of Innovation: Entrepreneurial Engines of Economic Growth Around the World*. Edward Elgar Publishing.
- Engel, J. S., Schindehutte, M., Neck, H. M., Smilor, R. & Rossi, B. (2016). What I have learned about teaching entrepreneurship: perspectives of five master educators. In *Annals of Entrepreneurship Education and Pedagogy–2016*. Edward Elgar Publishing.

Etzkowitz, H., & Leydesdorff, L. (1995). The Triple Helix – University-Industry-Government Relations: A Laboratory for Knowledge-Based Economic Development. *EASST Review*, 14, 14–19. Retrieved from <http://www.leydesdorff.net/th1/index.htm>.

Etzkowitz, H. (2003). Innovation in innovation: the triple helix of university-industry-government relations. *Social Science Information*, 42(3), 293–337.

Etzkowitz, H., 2003a. Innovation in innovation: the Triple Helix of university-industry-government relations. *Society of Scientific Information* 42(3), 293–337. <https://doi.org/10.1177/05390184030423002>.

Etzkowitz, H. and Carvalho de Mello, J. M. (2004): “The rise of a triple helix culture: Innovation in Brazilian economic and social development.” *International Journal of Technology Management and Sustainable Development*, 2(3), 159-171.

Etzkowitz, H. and Klofsten, M. (2005). The innovating region: toward a theory of knowledge-based regional development?. *R&D Management*, 35 (3), 243-255.

Etzkowitz, H. and Leydesdorff, L. (2005). The Transformation of University-Industry Government Relations. *Electronic Journal of Sociology*, 5(4). Retrieved from <http://www.sociology.org/archive.html>.

Etzkowitz, H. & Zhou, C. (2017). *The Triple Helix: University–Industry–Government Innovation and Entrepreneurship* (Second ed.). Abingdon: Routledge.

Garnsey, E. (2007). The Entrepreneurial University, The Idea, and Its Critics, in S. Yusuf and K-Nabeshima (Eds.), *How Universities Promote Economic Growth*. Washington: The World Bank, 227-238.

Gorgievski, M. J. & Stephan, U. (2016). Advancing the Psychology of Entrepreneurship: A Review of Psychological Literature and an Introduction. *Applied Psychology: An International Review*, 437–468.

Gorlewicz, J. L. & Jayaram, S. (2020). Instilling Curiosity, Connections, and Creating Value in Entrepreneurial Minded Engineering: Concepts for a Course Sequence in Dynamics and Controls. *Entrepreneurship Education and Pedagogy*, 60–85.

Grimaldi, R., Kenney, M., Siegel, D. S. and Wright, M. (2011). 30 years after Bayh-Dole: Reassessing academic entrepreneurship. *Res. Policy* 40(8), 1045–1057. <https://doi.org/10.1016/j.respol.2011.04.005>.

Grivokostopoulou, F., Kovas, K. & Perikos, I. (2019). Examining the Impact of a Gamified Entrepreneurship Education Framework in Higher Education. *Sustainability*, 1-17.

Guerrero, M., Urbano, D., 2017. The impact of Triple Helix agents on entrepreneurial innovations’ performance: an inside look at enterprises located in an emerging economy. *Technological Forecasting of Sociological Change* 119, 294–309. DOI: 10.1016/j.techfore.2016.06.015.

Hahn, D. (2020). The psychological well-being of student entrepreneurs: a social identity perspective. *International Entrepreneurship and Management Journal*, 467–499.

Hayter, C. S., Nelson, A. J., Zayed, S., and O'Connor, A. C. (2018). Conceptualizing academic entrepreneurship ecosystems: a review, analysis, and extension of the literature. *Journal of Technology Transfer* 43(4), 1039–1082. DOI:10.1007/s10961-018-9657-5.

Jansen, D. (2021). What is Data Analysis? Research Types/ Methods/Techniques. Retrieved from [www.https://guru99.com/What-is-data-analysis-html](https://guru99.com/What-is-data-analysis-html)

Jansen, D. and Warren, K. (2020). What (Exactly) Is Research Methodology? A Plain-Language Explanation Definition (With examples) Grad coach.

Kanyongo, G. Y. (2005). Zimbabwe's public education system reforms: successes and challenges. *International Education Journal*,

Keche, K. (2021). Relevancy of New Higher Education Approaches in the “Second Republic Zimbabwe” in Higher Education-New Approaches to Accreditation, Digitalization and Globalization in the Age of COVID. *Intechopen*. DOI: 10.5772/intechopen.99934.

Laing, K, et al. (2017). *Principles for promoting the impact of SSH research by co-creation: key issues in research design and communication*. Report Work Package 3, Accomplish. Newcastle University, University of Zagreb & University of Tartu.

Larsen, I. B. (2022). Fostering an entrepreneurial mindset: A typology for aligning instructional strategies with three dominant entrepreneurial mindset conceptualizations. *Industry and Higher Education*, 1–16.

Maydiantoro, A., Ridwan, R., Tusianah, R., Kesuma, T. A., Isnainy, U. C., & Zainaro, M. A. (2021). Entrepreneurship in Higher Education Curricula: Evidence from Indonesia. *Psychology and Education*, 936-949.

Ministry of Higher and Tertiary Education, Science and Technology Development. (2018a). *Doctrine for the Modernization and Industrialization of Zimbabwe through Education, Science, and Technology Development to achieve Vision 2030*: Government Gazette.

Ministry of Higher and Tertiary Education, Science and Technology Development. (2018b). *Biotechnology and Advanced Cattle Reproductive Technologies*. Government Gazette.

Ministry of Higher and Tertiary Education, Science and Technology Development. (2018c). *Study in Zimbabwe: Towards vision 2030*. Government Gazette.

Murwira, A. (2019). *Towards revitalizing the roles of Universities in development [Zimbabwe]*. Retrieved from https://www.ruforum.org/AGM2019/sites/default/files/HON_MINISTER_PROF_MUR_WIRA_SPEECH.pdf

Mustafa, M., Martin, L., & Hughes, M. (2016). Psychological Ownership, Job Satisfaction, and Middle Manager Entrepreneurial Behavior. *Journal of Leadership & Organizational Studies*, 272–287.

Muzira, D. R. and Bondai, B. M. (2020). Perception of Educators towards the Adoption of Education 5.0.: A case of a State university in Zimbabwe. *East African Journal of Education and Social Sciences* 1 (2): 43 – 53. DOI: 10.46606/eajess2020v01i02.0020.

-
- Nabi, G., Linan, F., Fayolle, A., Krueger, N. and Walmsley, A. (2017). The impact of entrepreneurship education in higher education: a systematic review and research agenda. *Acad. Manag. Learn. Educ.* 16(2), 277–299. <https://doi.org/10.5465/amle.2015.0026>.
- Nyota, S. and J. Mapara. (2008). Shona Traditional Children’s games and play songs as indigenous ways of knowing, in I.M. Zulu (ed.). *Journal of Pan African Studies*, 2(4), 184–202. Online: <http://www.jpanafrican.com>
- Passaro, R., Quinto, I. and Thomas, A. (2017). Start-up competitions as learning environment to foster the entrepreneurial process. *International Journal of Entrepreneurial Behaviour Research*
- Planing, P. (2017). On the origin of innovations – the opportunity vacuum as a conceptual model for the explanation of innovation. *Journal of Innovation and Entrepreneurship* 6, 5. DOI: 10.1186/s13731-017-0063-2.
- Sebikari, K. V. (2014b). Critical analysis of the taxation policy on small businesses and entrepreneurial enterprises in Uganda. *Journal of Economics and Sustainable Development* 5(10), 12-19.
- Sebikari, K. V. (2019). Entrepreneurial performance and small business enterprises in Uganda. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 3(1).
- Sinell, A., Muller-Wieland, R. and Muschner, A. (2018). Gender-specific constraints on academic entrepreneurship and engagement in knowledge and technology transfer. *Technol. Innovat. Manag. Rev.* 8 (2), 15–26. <https://doi.org/10.22215/timreview/1136>.
- Singh, K. J. & Sharma, A. (2018). Instilling Social Entrepreneurial Mindset through Transformative Learning. *International Journal of Innovative Business Strategies (IJIBS)*, 213-218.
- Soetanto, D. and Jack, S. (2016). The impact of university-based incubation support on the innovation strategy of academic spin-offs. *Technovation* 50(51), 25–40. <https://doi.org/10.1016/j.technovation.2015.11.001>
- Taherdoost, H. (2016). Sampling Methods in Research Methodology. How to choose sampling Technique for research? *International Journal of Academic Researching Management*, 5, Hal-02546796.
- Tirivangana, A. (2019). *Education 5.0 and Vision 2030, re-configuring Zim university degrees*. The Patriotic, March 28, 2019. Retrieved from <https://www.thepatriot.co.zw/education/education-5-0-and-vision-2030-re-configuring-Zim-university-degrees/>
- Urbano, D., Aparicio, S., Guerrero, M. Noguera, M. and Torrent-Sellens, J. (2017). Institutional determinants of student employer entrepreneurs at Catalan universities. *Technol. Forecast. Soc.*, 123, 271–282
- Wright, M., Siegel, D. S. and Mustar, P. (2017). An emerging ecosystem for student start-ups. *J. Technol. Transf.* 42(4), 909–922. <https://doi.org/10.1007/s10961-017-9558-z>.
- (ZIMCHE Regulations, 2021, page 36).
-

SSIRC 2023-035**EXPLORING THE ROLE OF LEADERSHIP IN ENTERPRISE RISK MANAGEMENT AT A SELECTED SOUTH AFRICAN INTERNET SERVICE PROVIDER****E.M. Motene**

STADIO Higher Education, South Africa

C.M. Schultz

Tshwane University of Technology, South Africa

H. de Jager

STADIO Higher Education, South Africa

ABSTRACT

An efficient risk management strategy must pave the way for organisations to implement organisational-wide risk management, which does not focus on risk as isolated incidents but as an inclusive part of the organisational management. Therefore, it can be argued that leadership may be required to facilitate this process holistically, ensuring that risk is part of what the organisation does (its DNA) and creating a proactive risk management culture. This study aims to establish the role of leadership in facilitating the process of implementing organisational-wide risk management within a South African Internet Service Provider (ISP). Risk management is critical and needs to be included in the organisation's strategy, operational planning, procedures, and processes to ensure the implementation thereof in an organisational-wide context. However, this is often not the case and risk management are seen as a singular event about a specific function within the organisation, such as finance or compliance. It is further acknowledged that leadership will drive this process and, therefore, the reason for such an investigation into a selected internet provider. A qualitative research methodology within the interpretivism research philosophy and an exploratory research design were utilised to determine the role of leadership in risk management at a selected internet company. There is a growing awareness that evaluating and managing risk needs a more holistic approach, and leadership must be the catalyst for implementing an organisational-wide risk management strategy. It is becoming more evident that risk management is done within very complex environments. It requires leadership to move from managing risks as an incident or for compliance by establishing a holistic approach to implementing an organisational-wide risk strategy. This can significantly contribute to the organisation's overall long-term sustainability. Leadership implementing and driving a risk strategy in an organisational-wide context can significantly assist organisations through turbulent times. Overall, this can contribute to creating more sustainable and long-lasting successful organisations.

KEYWORDS: Risk Management, risk, leadership, internet service provider, strategic planning.

1. INTRODUCTION

Yilmaz and Flouris (2017) maintain that for organisations to remain competitive, they need to pursue a well-established strategy that will enhance their competitiveness in the market. However,

Yilmaz and Flouris (2017) also acknowledge that Enterprise Risk Management (ERM) is key to achieving strategies. In this regard, Mellal (2020) postulates that organisations are not only at risk of financial and management risks, but often the inability to include changes in technology that can have a major impact on the organisation's operations. This was visible during the COVID-19 pandemic, when employees had to rely on technology to connect remotely for work (Kumar, 2021).

Williams (2017) believes that leadership often misconstrues risk management as a compliance issue and therefore does not embark on a wider organisational perspective of risk management. This may include organisations focusing on new risk management methods, including strategic leadership, transparency, and proper governance (Pagach & Wiczorek-Kosmala, 2020). Lastly, Birbirs (2019) indicates that a chief executive officer who does not develop a broader ERM plan may impact the organisation's long-term sustainability. This single case study aimed to examine the leadership role in ERM at a selected South African internet service provider.

2. LITERATURE REVIEW

Risk management as a strategy started gaining popularity around 1960. Until 1975, risk management meant organisations would use insurance to cover any unforeseen occurrences (Doherty, 1985). However, over the last two decades, this practice significantly changed from focusing only on insurance to managing various elements that can contribute to organisational risk. As a result, the approach has become what we call Enterprise Risk Management (ERM) (Olson & Wu, 2007).

ERM has become part of the management strategy as a proactive approach to mitigating risk, not just a reactive approach to financing risk. Hayes and Drury (2021) further explain that ERM is about detecting and assessing risks, and developing alternative plans to remedy possible threats, challenges, losses, and other issues that might pose a risk to the organisation. Blanco-Mesa, Rivera-Rubiano, Patiño-Hernandez and Martinez (2019) postulate that an appropriate inclusive, well-thought-out risk strategy led by leadership gives the organisation an advantage over its competitors, leading to growth.

Many authors postulate that risk management is about identifying and analysing organisational risks, and designing an appropriate risk response that will be within the risk tolerance level of the organisation. However, the framework of the Committee of Sponsoring Organisations of the Treadway Commission (COSO) provides a broader definition for ERM as influenced by an organisation's board of directors, leaders, managers, and other stakeholders, using strategic means across the organisation to identify potential threats that may affect the management thereof by the organisation; thus, assuring that the organisation can achieve its desired goals (COSO, 2014).

Enterprise risk management benefits

As with other efficient organisational choices, the benefits of ERM must outweigh the costs. According to Khan, Hussain and Mehmood (2016), organisations that adopt ERM develop a lower risk of economic difficulty, while Berry-Stölzle and Xu (2018) indicate an increase in business value, the outcome of increased profits and a lower cost of capital. Songling, Ishtiaq and Anwar (2018) postulate that other benefits are reduced capital cost, earnings volatility, stock downside risk, increased shareholder value, improved decision-making potential, and increased investor and stakeholder confidence.

Role of leadership in ERM

Dardis, Chloe and Ariel (2020) indicate that ERM leadership is how an individual motivates others to attain the organisation's ERM objectives. It is the most important process of improving and promoting employee self-assurance and drives organisational ERM. The tone at the top is critical to the success of ERM.

According to Kesting, Ulhøi, Sing and Niu (2016), a detailed grasp of the company's mission is the first step in this process. An end-to-end understanding of the company's value chain is critical for fostering a risk-averse corporate culture and providing direction for risk management. Leadership must grasp what contributes to and destroys value in a company to comprehend its value chain (Falkner & Hiebl, 2015). Risk management must be considered an integral component of the company's mission and not just a legal requirement. As a first step, leadership has the authority and visibility to promote a faster top-down reaction in crisis circumstances to minimise the effect of an occurrence (Nidhal, 2019). Positively, it implies that leaders may seize chances to create value more quickly and effectively. A second factor to consider is how workers perceive risk and the organisation based on the tone set at the top. People follow their seniors' lead because they see them as role models. By fostering a culture of openness, management develops an example that encourages discussion of risks and helps to detect them early on and reduce their impact (Kesting *et al.*, 2016). It is helpful to give risk leadership to someone supported and recognised by the board and who brings a strong voice to the table when decisions are being made in risk management.

Keeping the conversation going is also a leadership responsibility. It serves as a reminder of recent discussions, encourages the organisation to seize the opportunity, and generates new value while safeguarding the company's current assets (Masadeh *et al.*, 2014).

The future role of leadership in ERM

Leaders must reflect that "business as usual" has changed (Al-Amri & Davydov, 2016). When an organisation faces significant disruption, it must re-evaluate its performance goals, strategy, and the risks of sustaining that approach (Falkner & Hiebl, 2015).

The world is bracing itself for a massive shift brought on by the fourth industrial revolution (4IR) (Al-Amri & Davydov, 2016). Organisations of all shapes and sizes will likewise be adversely affected. As with previous revolutions, the 4IR is expected to provide many advantages and opportunities to businesses if managed correctly, according to multiple writers (Al-Amri &

Davydov, 2016; Hare, Lubruno & Bazrl, 2020). To be successful in 4IR, organisations must examine their present leadership and management styles and techniques to see whether they are sufficient (Hare, Lubruno & Bazrl, 2020). The following are some new responsibilities in risk management that top-level executives in organisations should begin adopting immediately: organisation reputation and IT security, creating a risk management culture and including risk management in all strategies. Kleffner *et al.* (2017) indicate that this will require a comprehensive ERM strategy driven by leadership to ensure its success, asserted by senior management and the board of directors (Masadeh *et al.*, 2014).

3. METHODOLOGY

3.1 Research design

The broad design of the study used an interpretivist paradigm, as this tends to better grasp the phenomena and their complexity in their unique context, rather than aiming to generalise the foundation of understanding for the complete population. According to Hammersley (2013), interpretivist researchers should try to understand the diverse ways of seeing and experiencing the world through different contexts and cultures to avoid bias when studying events and people based on their interpretations, because multiple interpretations are developed in human relationships.

This study used an exploratory research design that aims to understand the meaning that participants ascribe to their life experiences (Fouche, Strydom & Roestenburg, 2021). The strategic value of a case study is the ability to learn from a single unit of analysis in a real-life context.

A qualitative research approach was used. Qualitative scholars analyse items in their natural surroundings, trying to understand and interpret them in the way people see them (Flick, 2018). Rather than anticipating outcomes, researchers use the qualitative method to better understand the phenomena (Yap & Webber, 2015). Therefore, this research used a qualitative approach to gain a better and deeper understanding of the role of leadership in risk management with specific reference to an ITC company.

3.2 Sampling method

This study used a purposive convenience sampling method. Qualitative research often uses this sampling technique (Patton, 2015; Ramsook, 2018). The sample included 15 top managers of the selected IT company who oversee the ERM process. The inclusion criteria were at least five years of experience in their current position and a relevant management qualification.

3.3 Research instrument

A semi-structured interview schedule with open-ended questions was utilised.

3.4 Data collection

Semi-structured interviews and focus groups were used to collect data from the selected participants. This allowed the researchers to learn more about the topic and how leadership must drive the ERM process in a selected company. Interviews or focus groups are used most frequently in qualitative data collection to obtain participants' input on a subject matter (Friedemann, Moyorga

& Jimenez, 2011). According to De Vos, Strydom, Fouche and Delpont (2021) and Bryman and Bell (2017), focus-group or individual interviews as a qualitative assessment method encourage a free flow of ideas.

3.5 Data analysis

The researchers used thematic analysis to identify significant themes from the data. Quan (2018:420) defines thematic analysis as "a comprehensive review of obtained data, identifying significant areas of attention, and sorting information to provide a comprehensive analysis. Through the thematic analysis, the researchers could connect diverse participants' perspectives on the role of leadership in ERM acquired in diverse circumstances at various periods.

4. RESULTS AND DISCUSSION

The researchers identified three main themes and eleven sub-themes from the combined responses of the participants. Table 1 presents the themes that emerged most frequently from the interviews.

Table 1: Themes and sub-themes from interviews and focus group sessions

| |
|--|
| 1. Roles of leadership in RM |
| 1.1 An enterprise-wide approach to business risk |
| 1.2 To provide guidance and directives toward achieving the objectives of the company |
| 1.3 Strategy in risk identification |
| 2. Factors that hinder the role of leadership in RM |
| 2.1 Poor risk management culture |
| 2.2 Competency of risk officers |
| 2.3 Leadership influence |
| 2.4 Internal controls |
| 3. The future role of leadership in RM |
| 3.1 Effectively communicating the compliance requirements through policies, processes, and regulations |
| 3.2 Cybersecurity enhancement |
| 3.3 Incorporating AI and Big Data into risk management portfolio |

4.1 Role of leadership in RM

Enterprise-wide approach to business risk

As one respondent pointed out, leadership sets the bar by concentrating on risk response progress and effectiveness. This encourages better planning and responsibility for risk management. However, senior management who delegates the generation of risk information or the assessment of analytical results to someone else expresses a lack of priority for the subject matter (Jemaa, 2022). In addition, recognising people who actively manage risks by giving them positive and

visible acknowledgement increases the likelihood that others will do the same. Participants stated the following:

- *The company has an enterprise-wide approach to business risk on the executive as well as management level, where they would link both risk and opportunity (tactical and operational) to set new standards for the company.* (Participant 5)
- *To be and set a visible example to the organisation and staff on the importance of enterprise risks.* (Participant 4)

Guidance and direction toward achieving the objectives of the company.

Risk management aims to identify the risks that a company confronts, quantify, and assess them, devise means of monitoring risks, and develop ways of dealing with risks to reduce or eliminate them (Lipscomb, 2019). As one of the participants noted: "The goal is to develop a firm that is less vulnerable to hazards and thereby protects investors." Participants stated the following:

- *To provide guidance and directive towards achieving the objectives of the company.* (Participant 2)
- *To ensure the right skills and resource structures have been created and enabled to support the role in the organisation.* (Participant 4)
- *The role of senior leadership in ERM is to oversee the implementation and roll-out of the ERM process.* (Participant 6)

Strategy in risk identification

Most respondents emphasised the need for a more comprehensive strategy in risk identification methods. Collaboration and openness are essential components of effective risk management, and the parties involved must be willing to share their expertise to ensure the project's long-term success (Elahi, 2013). Participants stated the following:

- *The risks identified are documented and registered accordingly.* (Participant 3)
- *Their primary role is to provide strategy and guidance and manage organisational risks more effectively to ensure the long-term viability and sustainability of the business.* (Participant 10)

4.2. Factors that hinder the role of leadership in ERM

Poor risk culture

Most participants indicate that risk cultures significantly impact employees' collective attitudes regarding ERM success inside a company. ERM techniques may be better understood and studied if managers and corporate leaders pay close attention to risk culture (Ring, Bryce, Mckinney & Webb 2016). Participants stated the following:

- *Poor risk management culture.* (Participant 12)
- *Risk culture, competence of leaders, leadership influence.* (Participant 7)
- *Weak and/or poor risk management culture.* (Participant 6)

Competence of the risk officers

Another important aspect that affects risk management methods is the level of expertise of risk officers. Organisational ERM adoption and practice are positively influenced by the competency levels of the Chief Risk Office (CRO), Risk Control Officer (RMC), Audit Committee (AC), internal audit, and financial knowledge (Wan-Mohammad, Wasuizzaman, and Nik Salleh., 2016). In addition, management must consider the risk team's effectiveness as a critical success element (Chich-Jen, 2010). Participants stated the following:

- *Leadership not taking ownership of the risks in their area.* (Participant 2)
- *Better understanding of risk management, willingness to understand the business culture you are supporting.* (Participant 7)
- *Not linking risks to business objectives, not taking it seriously, history of inaction on risks.* (Participant 9)

Leadership influence

All participants agreed that effective leadership is critical to ERM procedures, allowing companies to achieve their objectives. ERM adoptions and practices at a company are supported by effective top management that provides the necessary resources, incentives, and commitment (Fraser & Simkins, 2016). Participants stated the following:

- *Good understanding of organisational policies, processes, and regulatory requirements.* (Participant 3)
- *Management capability.* (Participant 5)
- *Good understanding of company strategy, alignment with company strategy, and capability of management.* (Participant 8)

Internal controls

Participants in ERM believe that successful corporate governance can only be achieved if the internal control for risk evaluation and management techniques are properly implemented. Internal control is heavily influenced by the organisation's structure and accountability arrangements. An organisation's ERM processes and risk controls are heavily influenced by internal control (Tseng, 2007). Participants stated the following:

- *Lack of tools and techniques to support the implementation of ERM process.* (Participant 6)
- *Organised risk management systems in the workplace.* (Participant 9)
- *Internal controls.* (Participant 12)

4.3. The future role of leadership in ERM

Effective communication

For risk communication, the most important purpose is to provide significant information in clear and comprehensible language to a specified target audience (Stacho, Stachová, Papula, Papulová & Kohnová, 2019). Participants believe that it will lead to better risk management choices that are more universally accepted. Participants stated the following:

- *Effectively communicating the compliance requirements to policies, processes and regulations.* (Participant 4)

- *The reporting line should be separate from other functions, e.g., finance, audit. Senior leadership attitude towards risk management. (Participant 8)*
- *Internal communication (Participant 5)*

Cyber security enhancement

Cybersecurity must be integrated into enterprise risk management as the firms continue their digital transformation. Organisations cannot detect and analyse the link between cyber risk and its effect on the company without a thorough ERM programme. Eling, McShane & Nguyen (2021) state that organisations, not just those in the technology or IT departments, must deal with cyber risk. Participants stated the following:

- *Cybersecurity enhancement. (Participant 7)*

Incorporating AI and big data into risk management portfolio

Most participants agree with AI's and big data's value in efficiently identifying, analysing, and responding to risks. Predictive risk models based on prior occurrences may be determined using AI algorithms. Biolcheva (2020) postulates that AI can be used to analyse unstructured data concerning harmful actions or behaviours in the organisation's operations. Participants stated the following:

- *Implementing real-time mechanisms of detecting risks and reporting on non-compliance, therefore ensuring quick actions are taken before there is an irreversible impact on the organisation. (Participant 3)*
- *Data-driven decision-making/risk analysis. Incorporating AI and Big Data into risk management portfolio. Managing strategy execution, training/educating staff on risk matters, giving first-line support to business owners. (Participant 8)*
- *Incorporating AI and Big Data into risk management portfolio. (Participant 11)*

5. MANAGEMENT IMPLICATIONS AND RECOMMENDATIONS

Organisational transformation is progressing at a faster rate than ever before. Despite this, many risk management strategies still often use manual practices to manage organisational-wide risk or often see risk management as a singular event related to isolated incidents. In this regard, Pagach and Wieczorek-Kosmala (2020) warn that it is becoming more difficult to keep up with the rapidly changing risk scenarios, and the typical yearly risk assessment can no longer keep pace with these changes. It can, therefore, be argued that risk management needs to become a continuous process focusing on the broader context of the organisation, driven by leadership that creates a risk management culture.

For this reason, there is a growing awareness that evaluating and managing risk needs a more holistic, continuous approach considering a wide range of variables or incidents that might affect a company's long-term performance (Kulawik, Konat & Pawlowowska-Tyszko, 2020). The study suggests that leadership will be required to drive these strategies that are continually influenced by several variables or incidents from both outside and inside the organisation. Van der Sluis (2021) supports this viewpoint when suggesting a dedicated structure that builds a risk profile that considers both internal and external factors.

According to Vij (2019), a risk management programme that is properly implemented can help raise company-wide consciousness of business risks, instil trust in long-term goals, strengthen adherence to internal and external compliance requirements, and boost operational effectiveness by fostering a more uniform application of processes and controls. Focusing on risk as a holistic, continuous process, leadership will require a deeper understanding of the value creation inside an organisation, sometimes referred to as its "value chain" (Falkner & Hiebl, 2015). Respondents further suggest that leadership must include cutting-edge technologies like artificial intelligence, big data, and machine learning as critical parts of continuously identifying, evaluating, and responding to risk. The research findings emphasised the need for swift action and the usefulness of data-driven work. While data are essential, it should only be used to inform conversations about and decisions about risk management. According to Bag, Gupta, Chi, & Kumar. (2021), the capacity to swiftly obtain the pertinent facts helps to trigger pre-planned answers in the short term and guides decision-making in the long term.

6. CONCLUSION

According to Li (2018), managing risk will form an integral part of any company's operations in the future. In the same context, the role of leaders will be crucial in rolling out risk strategies in such a way that it can build a risk culture that can fundamentally contribute to creating long-lasting and sustainable organisations. Anton and Nucu (2020) postulate that the risk management frameworks must be modernised, forward-looking, risk-driven, and quantitative. According to Biolcheva (2020), risk management strategies and practices must be designed to include collaborating with AI and other technology to boost the organisation's total value.

REFERENCES

- Al-Amri, K., & Davydov, Y. 2016. Testing the Effectiveness of ERM: Evidence from operational losses. *Journal of Economics and Business*, 87:70–82. <https://doi.org/10.1016/j.jeconbus.2016.07.002>
- Anton, S.G. & Nucu, A.E.A. 2020. Enterprise risk management: A literature review and agenda for future research. *Journal of Risk and Financial Management*, 13(11):281.
- Bag, S., Gupta, S., Chi, T.M. & Kumar, A. 2021. Roles of innovation leadership on using big data analytics to establish resilient healthcare supply chains to combat the COVID-19 pandemic: a multi methodological study. *IEEE Transactions on Engineering Management*.
- Berry-Stölzle, T.R. & Xu, J. 2018. Enterprise risk management and the cost of capital. *Journal of Risk and Insurance*, 85(2):159–201.
- Biolcheva, P., 2020. Trends in the development of risk management. *Trakia Journal of Sciences*, 18(1):417-421.
- Birbisa, Z.A. 2019. Does leadership affect enterprise risk management? The case of tomato production value chains in Ethiopia. *International Journal of Commerce and Finance*, 5(1):13–24.

- Blanco-Mesa, F., Rivera-Rubiano, F., Patiño-Hernandez, X. & Martinez, M. 2019. The importance of enterprise risk management in large companies in Colombia. *Technological and Economic Development of Economy*, 25:600–633.
- Bryman, A. & Bell, E. 2017. *Business research methods*. Oxford: Oxford University Press.
- Chich-Jen, S., 2010. Supply chain management, organisational innovation and corporate culture: The impact of relatedness. *African Journal of Business Management*, 4(9):1736-1744.
- COSO. 2004. *Enterprise Risk Management Integrated Framework: executive summary*. Committee of Sponsoring Organisations. New York.
- Creswell, J.W. 2014. *Research design: Qualitative, quantitative and mixed methods approaches*, 4th ed. Los Angeles: SAGE.
- Dardis, T., Chloe L. & Ariel W. 2020. COVID-19 and enterprise risk management. Milliman White Paper, 30 March 2020. Available online: <https://www.milliman.com/en/insight/COVID-19-and-enterprise-riskmanagement> [Accessed: 29 May 2022].
- De Vos, A.S. (ed), Strydom, H., Fouche, C.B. & Delpont, C.S.L. 2021. *Research at grassroots: For the social sciences and human service professions*, 5th ed. Pretoria: Van Schaik.
- Doherty, N.A. 1985. *Corporate risk management: A financial exposition*. New York: McGraw-Hill.
- Elahi, E. 2013. Risk management: the next source of competitive advantage. Foresight.
- Eling, M., McShane, M. & Nguyen, T. 2021. Cyber risk management: History and future research directions. *Risk Management and Insurance Review*, 24(1):93-125.
- Falkner, E.M. & Hiebl, M.R.W. 2015. Risk management in SMEs: A systematic review of available evidence. *The Journal of Risk Finance*, 16(2):122-44.
- Flick, U. 2018. *The SAGE Book of Qualitative Data Collection*. Los Angeles:SAGE.
- Fouche, C. B., Strydom, H. & Roestenburg, W.J.H. (2021). *Research at grassroots. For the social sciences and human services professions*. Pretoria: Van Schaik.
- Fowler, F.J., 2014. *Survey research methods*. 5th ed. Boston: SAGE Publications, pp.116-118.
- Fraser, J.R., & Simkins, B.J. 2016. The challenges of and solutions for implementing enterprise risk management. *Business Horizons*, 59(6):689-698.
- Friedemann, M., Moyorga, C. & Jimenez, L. 2011. Data collectors' field journal as tools for research. *Journal of Research in Nursing*, (16):5.
- Hammersley, M. (2013). *What is qualitative research?* London: Bloomsbury.
- Hare, C. Lubruno, V & Bazrl, B. 2020. *Enterprise Risk Management (ERM) in the COVID-19 world*.

Ernst & Young LLP. United States. [Pdf]: https://assets.ey.com/content/dam/ey-sites/ey-com/en_us/topics/government-and-public-sector/ey-enterprise-risk-management-in-the-COVID-19-world.pdf [Accessed: 23 April 2022].

Hayes, A. & Drury, A., 2021. How Enterprise Risk Management (ERM) works. [online] Investopedia. Available at: <<https://www.investopedia.com/terms/e/enterprise-riskmanagement.asp>> [Accessed: 29 May 2022].

Jemaa, F., 2022. Recoupling work beyond COSO: A longitudinal case study of enterprise-wide risk management. *Accounting, Organisations and Society*, p.101369.

Kulawik, J., Konat, G. & Pawłowska-Tyszko, J. 2020. Holistic risk management as a response to budgetary constraints. *The CAP and national priorities within the EU budget after*.

Kesting, P., Ulhøi, J.P., Song, L.J. & Niu, H. 2016. The impact of leadership styles on innovation - a review. *Journal of Innovation Management*, 3(4):22–41.

Khan, M.J., Hussain, D. & Mehmood, W. 2016. Why do firms adopt enterprise risk management (ERM)? Empirical evidence from France. *Management Decision*, 54(1):1886–1907.

Kleffner, R. B., Lee, B., & McGannon A. E., 2003. The effect of corporate governance on the use of enterprise risk management: Evidence from Canada. *Risk Management and Insurance Review*, 6(1):53-73.

Kumar, B., 2021. Effect of strategic management practices on performance of pharmaceutical companies in India. *Journal of Strategic Management* 5(3), 44-54.

Li, L. (2018) A Study on Enterprise Risk Management and Business Performance. *Journal of Financial Risk Management*, 7, 123-138.

Lipscomb, J.C. 2019. Purpose-driven risk assessment. *Toxicologic Pathology*, 47(8):1027-1034.

M A Mellal, M.A., 2020. Obsolescence-A review of the literature. *Technology in Society* , volume 63.

Nidhal, H. 2019. Impact of leadership on family business organisational performance: the case of El-Saeed group. Unpublished doctoral thesis. Egypt.

Olson, D.L. & Wu, D.D. 2010. Enterprise risk management. *Risk Management*, 12:1-13.

Pagach, D. & Wiczorek-Kosmala, M. 2020. The challenges and opportunities for ERM post-COVID-19: Agendas for future research. *Journal of Risk and Financial Management*, 13(12):323.

Patton, M.Q. 2015. *Qualitative research and evaluation methods*. California: SAGE.

Quan, T. 2018. Language learning while negotiating race and ethnicity abroad. *Frontiers. The Interdisciplinary Journal of Study Abroad*, 30(2):32–46.

Ramsook, L. 2018. A methodological approach to hermeneutic phenomenology. *International Journal of Humanities and Social Sciences*, 10(1):14-24.

Ring, P.J., Bryce, C., McKinney, R. & Webb, R., 2016. Taking notice of risk culture - the regulator's approach. *Journal of Risk Research*, 19(3):364-387.

Songling, Y., Ishtiaq, M. & Anwar, M. 2018. Enterprise risk management practices and firm performance, the mediating roles of competitive advantage and the moderating role of financial literacy. *Journal of Risk and Financial Management*, 11(3):35.

Stacho, Z., Stachová, K., Papula, J., Papulová, Z. & Kohnová, L. 2019. Effective communication in organisations increases their competitiveness. *Polish Journal of Management Studies*, 19.

Tseng, C.Y. 2007. Internal control, enterprise risk management, and firm performance. Unpublished dissertation. University of Maryland, College Park.

Van der Sluis, L.E. 2021. Management model. In: *Leadership for risk management*. Cham: Springer, Cham. pp. 41-51.

Vij, M., 2019. The emerging importance of risk management and enterprise risk management strategies in the Indian hospitality industry: Senior managements' perspective. *Worldwide Hospitality and Tourism Themes*, 11(4):392-403.

Wan Mohammad, W.M., Wasuizzaman, S. and Nik Salleh, N.M.Z 2016. Board and audit committee effectiveness, ethnic diversification and earnings management: a study of the Malaysian manufacturing sector", *Corporate Governance*, Vol. 16 No. 4, pp. 726-746,

Williams, J. 2017. Rigorous risk management a must-have for public sector organisations. <https://www.accaglobal.com/us/en/member/member/accounting-business/2017/03/insights/risk-management-public-sector.html> [Accessed: 19 March 2022]

Yap, Q. & Webber, J. 2015. Developing corporate culture in a training department: A qualitative case study of internal and outsourced staff. *Review of Business and Finance Studies*, 6(1):43-56.

Yilmaz, A.K. & Flouris, T. 2017. Enterprise risk management in terms of organisational culture and its leadership and strategic management. In: *Corporate Risk Management for International Business*. Singapore: Springer. pp. 65-112.

SSIRC 2023-037**DETERMINANTS OF DOCTORAL SUCCESS AND PROGRESS AT THE UNIVERSITY OF SOUTH AFRICA (UNISA)****S.L. Ezesele**

The University of South Africa (Unisa), South Africa

Z. Robinson

The University of South Africa (Unisa), South Africa

F. Joubert

The University of South Africa (Unisa), South Africa

ABSTRACT

This study investigates the determinants of doctoral success and progress at the University of South Africa (Unisa). High dropout rates, delays, and dissatisfaction among PhD students are common problems in doctoral education. Many studies have reported different factors that are related to doctoral success. More importantly, the high dropout rate exhibits economic and social development challenges. This study analyses factors that contribute to PhD satisfaction, progress, intention to quit, and the ability to recommend PhD studies to other students. A survey was conducted using a sample of 241 doctoral students registered at the College of Economic and Management Sciences at Unisa. The results show that PhD students conducting research closely linked to their supervisor's research are more likely to be satisfied. Additionally, PhD students who are satisfied with the experience of the overall PhD learning journey are more likely to complete their PhD studies in time and to recommend the PhD route to friends or colleagues. The results also revealed which independent variables are most relevant in determining whether doctoral students are on schedule with their studies. It was found that doctoral students' intention to quit is related to gender, age, area of residence, and employment status.

KEYWORDS: doctoral studies; economics; success; impacts; South Africa (SA)

1. INTRODUCTION

The route to acquiring a doctoral degree is known to be stressful and challenging. The low completion rates of doctoral studies provide credence to this notion; in South Africa, between 34 and 39% of those who start their PhD never complete it (Centre for Research on Evaluation, Science and Technology (CREST), 2015; Department of Higher Education and Training (DHET), 2020; Jones, 2013). The low completion rate of PhD students has become a concern and challenge to social development and to economies, especially considering the global demand for knowledge economies. Doctoral student dropout rates of 40–50% have been reported in North America and, similarly, of 35% in Australia (Bitzer, 2012). According to Castelló et al. (2017), one third of a sample of Spanish PhD students who were still enrolled had at some point considered quitting their doctoral studies. Furthermore, the majority who crossed the finish line of their studies did so in

more time than initially anticipated, and the number of students who completed their doctoral studies within two years is exceptionally low (Castelló et al., 2017). It is far more common for students who complete their doctoral studies to do so over a much longer length of time, and the average completion rate in South Africa is between three and six years, even longer (James, 2022). For instance, at the University of South Africa (Unisa), the maximum period to complete a PhD is six years (Unisa, 2016).

The high attrition rate of PhD students is problematic because PhD students in South Africa are not fully state funded, although PhD students can apply for government support through the National Research Fund (NRF). Therefore, many doctoral students seek full-time employment to supplement their income and support their studies (Bekova & Dzhaferova, 2019). Today, governments around the world are investing heavily in doctoral education expansion, and in reforms in doctoral education to support the changing needs of society and labor markets for PhD holders. These changes influence the demand for doctoral studies, as knowledge is globally viewed as a crucial resource in this modern economy. South Africa is not isolated from this international demand wherein PhD holders are at the forefront of the campaign for the new knowledge economy. As Okebukola (2019) states, higher education is at the forefront of knowledge production change because knowledge is a by-product of education that produces graduates who are knowledgeable, skilled, and innovative aids to produce knowledge through research that drives economies. In doing so, universities are the “knowledge factories” for the new economy, holding mainly untapped reservoirs of knowledge that could be made commercially viable. Investing in higher education, and in PhD students, has major external advantages that are essential for knowledge-driven economic and social development (Okebukola, 2019).

Doctoral degrees are usually aimed at producing highly skilled graduates, which contributes significantly to economic and social development. The increase in doctoral investment in education aims to enhance the human capital of communities and society, consequently contributing to the creation of a more competitive economy (Bolli et al., 2013). This study is therefore based on the factors that determine PhD candidates’ success and makes use of a quantitative research methodology to survey PhD students enrolled at Unisa. The survey data-collection tool was administered to PhD students through an online mode of delivery. This was done to obtain their perspectives on the factors that determine their progress, satisfaction, and success in their doctoral studies. The findings may help address economic and social development challenges resulting from a lack of knowledge. In addition, it may help strengthen the National Development Plan (NDP), which calls to improve the PhD graduate rate to 5 000 per year by 2030 as a special need for national growth, if South Africa is to become a leading innovator (DHET, 2020).

The rest of this paper is organised as follows: the next section provides a literature review of factors that determine PhD success., followed by the background of South Africa’s PhD production, the research methodology, a discussion of the results, and the conclusion.

2. LITERATURE REVIEW ON DETERMINANTS OF PhD SUCCESS

The focus of this study is to establish factors that determine PhD candidates’ success at Unisa’s College of Economic and Management Sciences (CEMS). While governments may not yet

routinely collect statistical data on PhD students' satisfaction, and it is not frequently measured, better contentment would likely lead to students' greater well-being and perhaps even increased performance (Gerard et al., 2019). The satisfaction of PhD students may also influence their decision to pursue a career in academia, strengthening the research networks of their alma maters and the higher-education profession in general. Several existing studies on factors that determine PhD candidates' success suggest how crucial this issue is.

According to this study, by Travaglianti, Babic, and Hansez (2017), the key factor that reduces PhD students' intention to give up on their doctoral thesis is the sense of a good fit between supervisor and student, where the student's desire for fairness and recognition from the supervisor is met. In other words, understanding how to prevent attrition at the doctoral level requires an understanding of the support and recognition provided by thesis supervisors. This finding is in line with earlier research by McAlpine and McKinnon (2013), which explains that PhD thesis supervisors are a crucial tool for doctoral success since they assist candidates in the development and writing of their thesis (Erichsen et al., 2014; Ives & Rowley, 2005). Different aspects of PhD supervision have been investigated previously, such as the supervisor's availability, different types of support, and the quality of the supervisor-supervisee relationship (Bair & Haworth, 2004). Regular monthly or bi-monthly meetings with the supervisor or regular check-ins with the student by the supervisor are helpful and are also associated with a higher probability of completion (Stock & Siegfried, 2011). The effectiveness of the supervisory relationship between the on-campus doctoral candidate and their supervisor is critical to student satisfaction and completion (Andrew, 2012). Indeed, support perceptions are associated with positive attitudes at work, according to social exchange theory (Blau, 1964). This study also found that students have a lessened intention to quit when they feel satisfied that their supervisor's demands are fair and that their work is being acknowledged by the supervisor. This suggests that improving fit perception by considering this work-related need for fairness and acknowledgment is crucial to preventing attrition at the PhD level.

This is consistent with the various theories that emphasise the need for fulfillment as the cornerstone of favourable work attitudes. For instance, self-determination theory, as defined by Deci and Ryan (2000), claims that people can reach their maximum potential if their needs are taken into consideration. This will thus have favorable effects, such as lowering the level of students' intention to quit (Verquer et al., 2003). According to self-determination theory, individuals who believe their basic psychological needs are met will function at their best (Deci & Ryan, 2000). This is most observed in junior PhD students; as Van de Schoot et al. (2013) notes, PhD students at an earlier stage in their studies appear to be more hopeful about finishing on time.

Other factors that have been found to contribute to PhD success include an effective match between supervisor and student. A good match between student and supervisor is important to a successful PhD study and its outcome (Woolderink et al., 2015). Matching supervisor and student forms the foundation of the ongoing and unique relationship (Burnard et al., 2016). According to Abigail and Hill (2017), matching should be based on the topic and the chosen management style of on-campus PhD students. Matching supervisors based on the field of specialisation and a flexible management style helps provide doctoral students with options to fit in and adapt to the supervision pattern.

Supervision does not happen in a vacuum, and discussions about expectations must also include discussing cultural differences. Since it is common that the PhD student and supervisor may be from different environments, it is to be expected that differing cultural norms and practices may have an impact on both sides' expectations (Pyhältö et al., 2015 cited in Morag & Lucilla, 2018). In this context, Eisenberger and Stinglhamber (2011) state that individuals may respond favorably, with higher efforts and more favorable orientation if they experience high support from their organisation or their supervisor. According to Rockinson-Szapkiw et al. (2014), who conducted a study at Liberty University in Lynchburg, Virginia in the US, the following five main themes are strongly linked to doctoral success: (a) relationships with family, faculty, and peers; (b) determination, organisational skills, and time management; (c) programme flexibility and course relevance; (d) career advancement and financial reward; and (e) clear expectations for the doctoral programme. These themes are consistent with prior studies demonstrating that institutional characteristics and individual requirements are related to persistence and attrition in PhD programmes (Golde, 2006). The results are consistent with Glasser's (1998) choice theory, which contends that individuals are driven by fundamental desires that are susceptible to institutional influence. Relationships, professional development, program flexibility, and financial incentive are themes that this study identified.

The relationships between doctoral students and faculty members and peers are crucial for social integration that generates positive study outcomes. More importantly, the study also indicated that administrators and faculty members should work tirelessly to improve persistence within doctoral programmes. Recruitment and selection of students for doctoral programmes can benefit from an understanding of the personal factors that influence a doctoral student's persistence. To increase the likelihood of persistence and completion, faculty members and administrators can structure the curriculum effectively and to facilitate social and academic integration within doctoral programmes, while also taking other motivational factors into account, such as career support and advancement (Gaule & Piacentini, 2018; London et al., 2014).

Some studies on determinants of PhD-candidate success focus on the role of the academic departments, including Golde (2005) and Umbach and Porter (2002). Specific department and institutional practices can lead to greater satisfaction and research participation. However, another study found that institutional leadership, departmental leadership, and institution-departmental joint leadership can all help to improve satisfaction, retention, and completion (Peltonen et al., 2017). Departmental research groups and a supportive intellectual and social climate, as well as a good relationship with peers and supervisors, have all been connected to research programme satisfaction (Shin et al., 2018). Faculty members can provide role modelling and intellectual stimulation (Gardner, 2010), and other PhD students can provide social support. Satisfaction with a programme's academic involvement boosts completion (Gittings et al., 2018), and support for publishing would appear to be necessary. Increased confidence, productivity, and self-efficacy can all arise from such help, such as workshops (Badenhorst et al., 2014).

Seo et al. (2021) found that doctoral students in the humanities and social sciences are more likely than those in sciences and engineering to pursue academic careers. This finding is consistent with

previous research on trends in PhD career outcomes (National Science Foundation, 2018; Roach & Sauermann, 2010; Waaijer, 2017). As was contended by the National Science Foundation (2018), in the US, only 27% of PhD graduates in science and engineering have committed to a future in academia, compared to 66% of PhD graduates in the humanities and social sciences. As PhD students in the sciences and engineering are more likely to pursue professions outside of academia, and environmental factors such as faculty advisors or departments have a major impact on PhD students' motivation to work in academia (Gaule & Piacentini, 2018), and since most of existing institutional and departmental career supports for PhD candidates are targeted toward academic careers, this conclusion makes sense (St. Clair et al., 2017; Thiry et al., 2015). Because doctoral students generally enter PhD programmes with flexible career objectives, their doctoral training environments have an impact on their professional identity and aspirations (Gibbs & Griffin, 2013). While career support is crucial to people of all genders, our logistic model suggests that higher levels of perceived career support may have an even greater impact on female PhD candidates' decisions to pursue faculty positions.

3. FACTORS AFFECTING PhD STUDIES

In this study, lack of financial aid was reported as one of the major contributing factors to high attrition levels in doctoral students. Given the growing financial costs to conduct research, empirical evidence supports the idea that financial resources play a significant role in reducing the time it takes students to complete their PhD studies (Council of Graduate Schools, 2010; Di Pierro, 2012b; Geven et al., 2017). Other study (Kim & Otts, 2010) has also found that financial limitations and insufficient funding affect doctoral student performance and success. The availability of financial support was indicated as the most important factor in the success of PhD studies by several studies (Frasier, 2013; Groenvynck et al., 2013; Van der Haert et al., 2014; Wollast et al., 2018).

In the US, Ehrenberg (1991) suggested policy changes to permit increased federal, foundation, and corporate support for doctoral students in order to avoid future shortages of PhD students. The study found that financial support for PhD students is necessary, as it plays an important role in reducing the time students spend to complete their doctoral studies (Ehrenberg, 1991). As Breen and Goldthorpe (1997) indicate, financial support reduces the cost of studying, consequently balancing choice decision towards persistence, *ceteris paribus*. With financial support, PhD students can focus on their studies without taking up employment elsewhere, as students without sufficient funding are most likely to take up teaching assistantships or engage in other jobs that could potentially distract them from their research work (Seagram et al., 1998).

Concerning age, various studies (Groenvynck et al., 2013; Van der Haert et al., 2013) have found that younger PhD students are more likely to finish their studies within a timeframe of eight years. Contrary, Zhao et al. (2007) argue that doctoral experiences are closely linked to age and discipline variables and that the relationship between how students experience supervision and age was concerning, with the youngest doctoral students being more likely to have a negative experience, likely because older students have more experience dealing with problems and can develop more efficient solutions. Younger students, in contrast, may find it difficult to integrate their PhD studies

with other areas of their lives, such as financial security and holding outside jobs, making it even more difficult to ensure the frequency and effectiveness of supervision meetings. Martinez et al. (2013) analysed the study and work lives of full-time doctoral students in the US and found that the four following key determinants of doctoral success: (a) purposeful management; (b) well-being; (c) support; and (d) tradeoffs. PhD students understand the value of maintaining a balance between their job and personal lives as well as the difficulties they have in time management when juggling several roles and obligations. These students' success largely depends on how effectively they plan and coordinate their various duties, (Martinez et al. 2013).

Hands (2018) found that prior educational experiences influence and motivate students' decisions to pursue a doctoral degree. This finding is consistent with Lott et al. (2009). Furthermore, students who obtain assistant lectureships are less likely to complete their PhD within eight years than students who receive research assistantships or doctoral grants, according to Ampaw and Jeager (2012) and Groenvynck et al. (2013). However, students who receive doctoral scholarships for fundamental research have higher completion rates than those who receive assistant lectureships.

Family and background also play an important role in PhD completion, and married doctoral students are more likely than their single peers to pursue academic employment. A study by Frintner et al. (2018) found that married residents (doctors) placed a higher value on spouse- or family-related conditions, as well as their ability to control their work schedule, whereas single residents placed a higher value on career opportunities. Given that freedom and family-related situations were frequently reported as contributing factors in doctoral students' consideration of academic careers (Roach & Sauermann, 2010; Waaijer, 2017), married doctoral students may view academic careers as having a more flexible working schedule to support their family needs, whereas single students may be more open to various options outside of academia.

Olive's (2019) study on development and decision-making processes in PhD retention and degree completion in the US found that a student's ability to see the value in their studies is a critical step toward retention. Adult students are interested in relating their educational experience to the rest of their lives, and the more they do so, the more engaged they become (Hands 2020; London et al., 2014).

In the South African context, a study by Loots et al. (2016) that evaluated black women's participation, development, and success in doctoral studies found that conversion contributes positively to agency, and capability expansion helps them to develop through their PhD studies, such as receiving access to academic support and exposure to development opportunities like funding. At Unisa, Schulze (2017) found that supervisors play an important role in providing social capital, which can help students become active members of the academic community of practice. Many scholars (Clowes & Shefer, 2013; Louw & Muller, 2014; Streble & Shefer, 2016) have indicated that mentorship programmes are beneficial to and significant in assisting doctoral students in completing their PhD studies.

Other significant studies include one by Ngulube and Ukwoma (2019), who argued that team supervision benefits both doctoral students and research supervisors and recommended mentorship and team supervision over solitary supervision to improve the performance of PhD students and

shorten the time it takes to complete their degrees. According to Wright and Cochrane (2000), PhD students who are employed full time progressed more quickly than PhD students working part time. This has been supported by others (Gittings et al., 2018; Khozaei et al., 2015), who have found that financial support is strongly linked to PhD students' success, owing to the financial support controls and the ample time it provides PhD students to focus on their studies rather than working to support themselves (Ho et al., 2010). Also, employment and marital status have also been linked positively to PhD students' success, since they add to the PhD student's responsibilities (Lindsay, 2015).

In summary, this study investigates the factors that influence PhD success and progress. The factors involved include, among others, the following: personal motivation; financial, family, academic and institutional factors; supervisor-student relationship supervisory experiences; and academic capital development.

4. OVERVIEW OF DOCTORAL PRODUCTION IN SOUTH AFRICA

The evolution of South Africa's PhD production predates the 1994 change in political dispensation. This study focuses on exploring changes in doctoral production and challenges related to doctoral studies that have taken place after South Africa's transition to democracy from 1994 onwards. Between 1993 to 1999, the early democratic years of South Africa, a total of 4 708 PhD graduates were recorded over the seven years. This is 27% of the number of PhD candidates produced in the decade after. From 2000 to 2010, South Africa produced approximately 12 515 PhD graduates (see Figure 1).

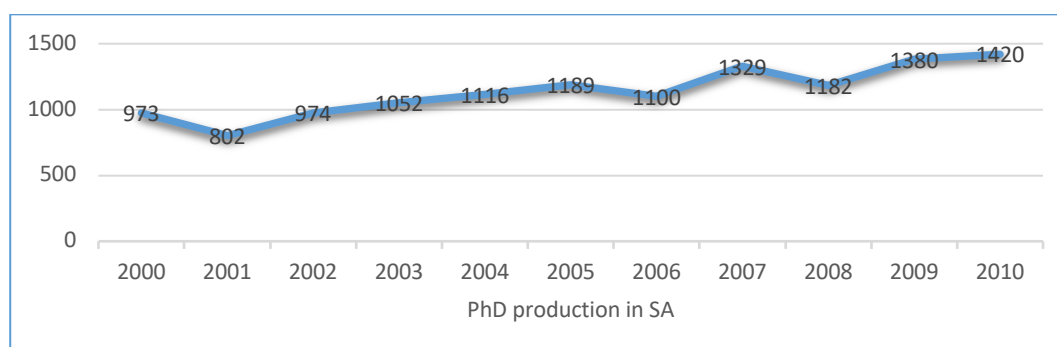


Figure 1. Annual PhD production in South Africa (2000-2010). Source: Mouton (2011)

The number of PhD graduates during this period has shown a constant average yearly increase of 12% and 13% (Mouton, 2011). Since 2010, there has been a slight steady increase in the number of PhDs awarded in South Africa, due to reform and commitment by the higher-education sector that supports inclusive education, including of international doctoral students. In addition, from 2011 to 2020 a total number of 26 456 PhDs were awarded in all universities in South Africa. This is equivalent to 54 doctoral graduates per million people in 2017; 58 doctoral graduates per million people in 2018; 59 doctorates per million people in 2019; and 65 doctoral graduates per million people in 2020. The number of doctoral graduates has been on an upward trajectory year on year in South Africa since 2010 and has been far much larger than what was observed in the decades before 2010 (DHE, 2020).

5. METHODOLOGY

This study is based on both quantitative and qualitative research methods. The sample consisted of 241 PhD students registered at Unisa. The PhD students selected for this study were at a third-year level and above. All the selected PhD students were invited to participate in the survey/questionnaire on 17 April 2023 via an email that was sent to them on behalf of the researcher. Qualitative data collection was conducted through telephonic interviews. The study was granted ethical clearance and research goals were contained in this email to participants, as well as information about data management and processing.

Before starting the survey, participants had to give their informed consent, and anonymity was guaranteed. Participation in this study was voluntary and participants were free to withdraw from the study at any time, without having to provide a reason for doing so. The survey was open for one month to allow sufficient time for the respondents to respond to the questionnaire. Two reminder emails were sent to those PhD students who had not yet started or completed the survey.

Research instrument

The survey is based on factors that determine PhD students' success. The data-collection tool adopted for the quantitative study is a survey consisting of items that have, whenever possible, been validated and used in previous studies (Van Rooij et al., 2021). The survey was pilot tested by the researcher's supervisor and co-supervisor, who were asked to complete the survey and double-checked issues such as inconsistencies, unclear language use, and questions not applying to certain PhD candidates' specific situations, which were pointed out and solved.

The first phase provides biographical information about the PhD students, followed by the supervisor support scales, such as: "My supervisor provides me with choices and options", "My supervisor responds to my queries or requests for help within a reasonable timeframe", "Turnitin guidelines are clear", and "My supervisor expects me to publish in high-impact journals". The following scales were based on scales developed by the researcher and moderated by the supervisor: "My supervisor helps me to plan and manage the different research tasks that I have to complete", "I have a positive student-supervisor relationship", and "My PhD studies are closely linked to my supervisor's research".

Table 1. Measurement characteristics of the variables used in this study.

| Factor | Sample item |
|--------------------|--|
| Dependent variable | |
| Satisfaction | How satisfied are you with your PhD trajectory? (5-point scale: strongly disagree–strongly agree) |
| Progress | Are you currently on schedule with your PhD studies? (5-point scale: strongly disagree–strongly agree) |

| Factor | Sample item |
|-----------------------------|--|
| Intention to quit | Have you ever considered quitting your PhD studies? (5-point scale: strongly disagree–strongly agree) |
| Recommend | I would recommend the PhD route to friends or colleagues. (5-point scale: strongly disagree–strongly agree) |
| Supervision characteristics | |
| Autonomy support | My supervisor provides me with choices and options (5-point scale: strongly disagree–strongly agree) |
| Academic support | My supervisor helps me to plan and manage the different research tasks I must complete. (5-point scale: strongly disagree–strongly agree) |
| Availability | My supervisor responds to my queries or requests for help within a reasonable timeframe. (5-point scale: strongly disagree–strongly agree) |
| Supervisory relationship | I have a positive student-supervisor relationship. (5-point scale: strongly disagree–strongly agree) |
| High expectations | My supervisor expects me to publish in high-impact journals. (5-point scale: strongly disagree–strongly agree) |
| My project | My PhD studies are closely linked to my supervisor’s research. (5-point scale: strongly disagree–strongly agree) |

In this study, satisfaction as the dependent variable was used by asking PhD students to rate the following aspects of their experiences on a 5-point scale (listed in Table 1): overall satisfaction with their PhD trajectory; whether they are on schedule to complete their studies; how frequently they had considered quitting their PhD; and whether they would recommend the PhD route to friends or colleagues.

Data analysis

This study employed multiple regression analyses to investigate the impact of the following variables: satisfaction, being on schedule, intentions to quit, and recommending the PhD route to others. In this way, we were able to find out the contribution of each variable in explaining PhD studies success in the research model.

6. RESULTS

Descriptive statistics

Table 2 displays the means, standard deviations, and ranking of all variables. Table 3 displays the percentages regarding PhD students’ satisfaction, expectations to complete in time, how often they consider quitting, and whether they would recommend doing a PhD to others.

Satisfaction: regression results

Firstly, the researchers wanted to know which factors contribute to PhD students' satisfaction with their PhD trajectory in general (see Table 4). Model 1 included background variables.

Table 2. Descriptive statistics: Mean responses to determinant factors of doctoral success.

| S/N | Items | Mean | SD | RMK |
|-----|--|------|-------|-----|
| | My supervisor provides me with choices and options. | 4.35 | 1.032 | 15 |
| | My supervisor responds to my queries or requests for help within a reasonable timeframe. | 4.33 | 1.281 | 1–5 |
| | Turnitin guidelines are clear. | 3.84 | 1.179 | 1–5 |
| | My supervisor expects me to publish in high-impact journals. | 4.12 | 1.073 | 1–5 |
| | My supervisor helps me to plan and manage the different research tasks that I must complete. | 4.18 | 1.048 | 1–5 |
| | I have a positive student-supervisor relationship. | 4.57 | 1.000 | 1–5 |
| | My PhD studies are closely linked to my supervisor's research. | 3.59 | 1.398 | 1–5 |
| | I have good access to the library. | 3.96 | 1.190 | 1–5 |
| | Registration was relatively easy. | 4.24 | 1.217 | 1–5 |
| | The cost of my PhD studies is reasonable. | 3.71 | 1.173 | 1–5 |
| | I would recommend the PhD route to friends or colleagues. | 4.34 | 0.897 | 1–5 |
| | I have integrated my PhD studies with my work life. | 4.11 | 1.005 | 1–5 |
| | I have integrated my PhD studies with my family life. | 3.79 | 0.999 | 1–5 |
| | I have integrated my PhD studies with my social life. | 3.49 | 1.300 | 1–5 |
| | I am satisfied with my overall experience of the PhD learning journey. | 4.26 | 1.032 | 1–5 |

(1) *Strongly disagree*; (2) *Somewhat disagree*; (3) *Neither agree nor disagree*; (4) *Somewhat agree*; and (5) *Strongly agree*

Table 3. Descriptive statistics: Responses to the questions regarding satisfaction, being on schedule, considering quitting, and recommending the PhD route.

| How satisfied are you with your PhD trajectory? | Very dissatisfied | Somewhat dissatisfied | Neither dissatisfied nor satisfied | Somewhat satisfied | Very satisfied |
|---|-------------------|-----------------------|------------------------------------|--------------------|----------------|
| % of respondents | 8.3 | 2.1 | 4.2 | 45.8 | 39.6 |

| | | | | | |
|--|--|--------------------------|--|-----------------------|-----------------------|
| Are you currently on schedule with your PhD studies? | No, I have fallen behind and will not be able to finish in time as planned. | | Yes, I will be able to finish in time as planned. | | |
| % of respondents | 27.1 | | 72.9 | | |
| Have you ever considered quitting your PhD studies? | No | Never | Yes | Very often | |
| % of respondents | 25.5 | 31.9 | 38.3 | 4.3 | |
| I would recommend the PhD route to friends or colleagues. | Strongly disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Strongly agree |
| % of respondents | 2.1 | 0 | 12.8 | 31.9 | 53.2 |

In Model 1, the study estimated factors that contributed to PhD students’ satisfaction with their overall PhD trajectory by adding the following background control variables: gender, age,

group, area of residence, and employment status. Male PhD students were found to be more satisfied with their PhD trajectory than female students, the majority of the current registered PhD students are between 40 and 59 years old, and the majority of reside in urban areas and are employed.

Table 4. Results of the regression analysis with satisfaction as dependent variable.

| | | Unstandardised coefficients | | Standardised coefficients | t | sig |
|----------|--|-----------------------------|--------------|---------------------------|--------------|--------------|
| Model | | B | Std error | Beta | | |
| 1 | Constant | 3.964 | 1.346 | | 2.946 | 0.005 |
| | Gender [0 = Male; 1 = Female] | -0.615 | 0.375 | -0.247 | -1.460 | 0.109 |
| | Age group | 0.020 | 0.243 | 0.013 | 0.084 | 0.933 |
| | Area of residence [0 = Rural; 1 = Urban] | 0.155 | 0.617 | 0.038 | 0.252 | 0.802 |
| | Employment status [0 = Employed; 1 = Unemployed] | 0.349 | 0.511 | 0.102 | 0.683 | 0.498 |
| 2 | Constant | 1.716 | 1.888 | | 0.909 | 0.373 |
| | Gender [0 = Male; 1 = Female] | -0.475 | 0.411 | -0.197 | -1.154 | 0.260 |
| | Age group | -0.262 | 0.230 | -0.164 | -1.140 | 0.265 |
| | Area of residence [0 = Rural; 1 = Urban] | 0.554 | 0.678 | 0.136 | 0.817 | 0.422 |
| | Employment status [0 = Employed; 1 = Unemployed] | 1.269 | 0.630 | 0.372 | 2.015 | 0.055 |
| | Get internet access from: mobile | -0.840 | 0.407 | -0.322 | -2.065 | 0.050 |
| | Get internet access from: home | -0.040 | 0.445 | -0.015 | -0.089 | 0.930 |

| | | Unstandardised coefficients | | Standardised coefficients | t | sig |
|-------|--|-----------------------------|-----------|---------------------------|--------|-------|
| Model | | B | Std error | Beta | | |
| | Get internet access from: internet café | -0.142 | 0.832 | -0.030 | -0.170 | 0.866 |
| | Get internet access from: work. | 0.573 | 0.427 | 0.239 | 1.341 | 0.193 |
| | My supervisor provides me with choices and options. | -0.072 | 0.388 | -0.065 | -0.184 | 0.855 |
| | My supervisor responds to my queries or requests for help within a reasonable timeframe. | 0.169 | 0.249 | 0.191 | 0.678 | 0.505 |
| | Turnitin guidelines are clear. | 0.371 | 0.189 | 0.375 | 1.959 | 0.062 |
| | My supervisor expects me to publish in high-impact journals. | -0.285 | 0.200 | -0.270 | -1.425 | 0.167 |
| | My supervisor helps me to plan and manage the different research tasks that I must complete. | -0.279 | 0.257 | -0.249 | -1.425 | 0.167 |
| | I have a positive student-supervisor relationship. | 0.024 | 0.457 | 0.021 | 0.052 | 0.959 |
| | My PhD studies are closely linked to my supervisor's research. | 0.399 | 0.190 | 0.485 | 2.096 | 0.047 |
| | I have good access to the library. | 0.026 | 0.158 | 0.027 | 0.166 | 0.870 |
| | Registration was relatively easy. | -0.172 | 0.143 | -0.185 | -1.208 | 0.239 |
| | The cost of my PhD studies is reasonable. | 0.024 | 0.162 | 0.025 | 0.149 | 0.883 |
| | I have integrated my PhD studies with my work life. | 0.296 | 0.244 | 0.259 | 1.213 | 0.237 |
| | I have integrated my PhD studies with my family life. | -0.349 | 0.257 | -0.303 | -1.355 | 0.188 |
| | I have integrated my PhD studies with my social life. | 0.171 | 0.204 | 0.193 | 0.838 | 3.754 |
| | I am satisfied with my overall experience of the PhD learning journey. | 0.553 | 0.147 | 0.496 | 3.754 | 0.001 |

Dependent variable: How satisfied are you with your PhD studies trajectory?

Model 1: R Square = 0.069. Sig F change =0.545. Model 2: R Square = 0.696. Sig F change = 0.011.

In Model 2, we added other variables to the background display in Table 4. Three of these variables were found to influence satisfaction. First, getting internet access from home provided them with more comfort to dedicate to their research work and prevented them from any interruption and distractions. Second, the findings also show that PhD students with research work closely linked to their supervisor's research are more likely to be satisfied. This could be because the supervisor's

increased ability to provide professional guidelines and assistance in a field in which they also have an interest and expertise. Third, the results revealed that PhD student who are satisfied with the overall experience of the PhD learning journey led to PhD students' satisfaction and success. Gender and age group were no longer significant predictors of satisfaction, and the area of residence and employment status of respondents were also not significant in model 2.

Being on schedule: Regression analysis

Table 5. Results of the regression analysis with being on schedule as dependent variable.

| | | Unstandardised coefficients | | Standardised coefficients | t | sig |
|----------|--|-----------------------------|--------------|---------------------------|--------------|--------------|
| Model | | B | Std error | Beta | | |
| 1 | Constant | 1.594 | 0.528 | | 3.018 | 0.004 |
| | Gender [0 = Male; 1 = Female] | 0.127 | 0.147 | -0.130 | 0.863 | 0.393 |
| | Age group | 0.021 | 0.095 | 0.034 | 0.223 | 0.825 |
| | Area of residence [0 = Rural; 1 = Urban] | 0.028 | 0.242 | 0.017 | 0.116 | 0.908 |
| | Employment status [0 = Employed; 1 = Unemployed] | 0.326 | 0.201 | 0.243 | 1.623 | 0.112 |
| 2 | Constant | 0.724 | 0.878 | | 1.963 | 0.061 |
| | Gender [0 = Male; 1 = Female] | 0.059 | 0.191 | 0.060 | 0.309 | 0.760 |
| | Age group | -0.079 | 0.107 | -0.126 | -0.739 | 0.467 |
| | Area of residence [0 = Rural; 1 = Urban] | -0.418 | 0.315 | -0.261 | -1.326 | 0.197 |
| | Employment status [0 = Employed; 1 = Unemployed] | 0.326 | 0.293 | 0.243 | 1.112 | 0.277 |
| | Get internet access from: mobile | -0.054 | 0.189 | -0.053 | -0.287 | 0.777 |
| | Get internet access from: home | 0.155 | 0.207 | 0.147 | 0.750 | 0.460 |
| | Get internet access from: internet café | -0.003 | 0.387 | -0.01 | -0.007 | 0.995 |
| | Get internet access from: work. | -0.213 | 0.199 | -0.225 | -0.071 | 0.295 |
| | My supervisor provides me with choices and options. | -0.063 | 0.180 | -0.145 | -0.349 | 0.730 |
| | My supervisor responds to my queries or requests for help within a reasonable timeframe. | 0.233 | 0.116 | 0.670 | 2.010 | 0.056 |
| | Turnitin guidelines are clear. | -0.028 | 0.088 | -0.072 | -0.320 | 0.752 |
| | My supervisor expects me to publish in high-impact journals. | 0.052 | 0.093 | 0.126 | 0.563 | 0.579 |

| | | Unstandardised coefficients | | Standardised coefficients | t | sig |
|-------|--|-----------------------------|-----------|---------------------------|--------|-------|
| Model | | B | Std error | Beta | | |
| | My supervisor helps me to plan and manage the different research tasks that I must complete. | 0.105 | 0.120 | 0.238 | 0.876 | 0.390 |
| | I have a positive student-supervisor relationship. | -0.248 | 0.213 | -0.558 | -1.166 | 0.255 |
| | My PhD studies are closely linked to my supervisor's research. | -0.005 | 0.089 | -0.015 | -0.055 | 0.957 |
| | I have good access to the library. | -0.066 | 0.074 | -0.174 | -0.892 | 0.381 |
| | Registration was relatively easy. | -0.070 | 0.066 | -0.190 | -1.054 | 0.302 |
| | The cost of my PhD studies is reasonable. | 0.062 | 0.076 | 0.162 | 0.823 | 0.149 |
| | I have integrated my PhD studies with my work life. | -0.010 | 0.113 | -0.022 | -0.087 | 0.931 |
| | I have integrated my PhD studies with my family life. | 0.039 | 0.120 | 0.087 | 0.329 | 0.745 |
| | I have integrated my PhD studies with my social life. | 0.033 | 0.095 | 0.094 | 0.344 | 0.734 |
| | I am satisfied with my overall experience of the PhD learning journey. | 0.171 | .069 | 0.390 | 2.497 | 0.020 |

Dependent variable: Are you currently on schedule with your PhD studies?

Model 1: R Square = 0.073. Sig F change = 0.518. Model 2: R Square = 0.575. Sig F change = 0.148.

The next question on the regression analysis is about which factors explained variance in whether the PhD students participating in the study were on schedule with their studies. The results in Model 1 indicated that background variables were not statistically significant, implying that PhD students in the CEMS were likely not on schedule with their PhD studies based these on background factors. The results in Model 2 revealed that none of these included variables were statistically significant, except when PhD student candidates are satisfied with the overall experience of the PhD learning journey, which could lead them to be on schedule with their studies. In addition, it is logical to assume that PhD students who are more satisfied with their PhD studies are more likely to develop passion and dedication towards their studies.

Intention to quit: Regression results.

Table 6. Results of the regression analysis with intention to quit as dependent variable.

| Model | | Unstandardised coefficients | | Standardised coefficients | t | sig |
|-----------------------------------|---|-----------------------------|--------------|---------------------------|--------------|--------------|
| | | B | Std error | Beta | | |
| 1 | Constant | 2.227 | 1.591 | | 1.399 | 0.169 |
| | Gender [0 = Male; 1 = Female] | 0.298 | 0.443 | 0.103 | 0.672 | 0.505 |
| | Age group | -0.042 | 0.287 | -0.023 | -0.147 | 0.884 |
| | Area of residence [0 = Rural; 1 = Urban] | 0.480 | 0.729 | 0.101 | 0.658 | 0.514 |
| | Employment status [0 = Employed; 1 = Unemployed] | 0.637 | 0.605 | 0.160 | 1.053 | 0.298 |
| 2 | Constant | 7.231 | 3.250 | | 2.225 | 0.036 |
| | Gender [0 = Male; 1 = Female] | 0.371 | 0.708 | 0.128 | 0.524 | 0.605 |
| | Age group | -0.158 | 0.396 | -0.085 | -0.400 | 0.693 |
| | Area of residence [0 = Rural; 1 = Urban] | -0.701 | 1.167 | -0.147 | -0.601 | 0.554 |
| | Employment status [0 = Employed; 1 = Unemployed] | -1.277 | 1.084 | -0.321 | -1.178 | 0.250 |
| | Get internet access from: mobile | 0.683 | 0.700 | 0.224 | 0.975 | 0.339 |
| | Get internet access from: home | -0.279 | 0.766 | -0.089 | -0.364 | 0.719 |
| | Get internet access from: internet café | 1.285 | 1.432 | 0.237 | 0.897 | 0.378 |
| | Get internet access from: work. | -1.469 | 0.735 | -0.524 | -1.998 | 0.057 |
| | My supervisor provides me with choices and options. | 0.012 | 0.667 | 0.010 | 0.018 | 0.985 |
| | My supervisor responds to my queries or requests for help within a reasonable timeframe. | 0.517 | 0.429 | 0.501 | 1.206 | 0.240 |
| | Turnitin guidelines are clear. | -0.139 | 0.326 | -0.120 | -0.426 | 0.674 |
| | My supervisor expects me to publish in high-impact journals. | 0.194 | 0.344 | 0.157 | 0.564 | 0.578 |
| | My supervisor helps me to plan and manage the different research tasks that I have to complete. | -0.178 | 0.443 | -0.137 | -0.402 | 0.691 |
| | I have a positive student-supervisor relationship. | -0.129 | 0.787 | -0.097 | -0.163 | 0.872 |
| | My PhD studies are closely linked to my supervisor's research. | -0.192 | 0.328 | -0.200 | -0.586 | 0.563 |
| | I have good access to the library. | 0.015 | 0.273 | 0.013 | 0.055 | 0.957 |
| Registration was relatively easy. | -0.006 | 0.245 | -0.006 | -0.026 | 0.980 | |

| | | Unstandardised coefficients | | Standardised coefficients | t | sig |
|-------|--|-----------------------------|-----------|---------------------------|--------|-------|
| Model | | B | Std error | Beta | | |
| | The cost of my PhD studies is reasonable. | -0.088 | 0.280 | -0.078 | -0.316 | 0.755 |
| | I have integrated my PhD studies with my work life. | -0.424 | 0.420 | -0.317 | -1.009 | 0.323 |
| | I have integrated my PhD studies with my family life. | -0.146 | 0.443 | -0.109 | -0.330 | 0.744 |
| | I have integrated my PhD studies with my social life. | 0.214 | 0.351 | 0.207 | 0.609 | 0.548 |
| | I am satisfied with my overall experience of the PhD learning journey. | -0.294 | 0.254 | -0.226 | -1.160 | 0.258 |

Dependent variable: Intention to quit PhD studies Model 1: R Square = 0.045. Sig F change = 0.740. Model 2: R Square = 0.339. Sig F change = 0.870.

Table 6 shows the regression results on intention to quit in Model 1. The results revealed that the background variables were not significant. However, in Model 2, these background variables were statistically significant, meaning that the intention to quit PhD studies were related to these variables. These background variables explained 38.3% of the variance in intention to quit. The findings also demonstrated that male PhD students considered quitting their studies less often than female PhD students. Reports in crosstabs statistics show that 57.1% of the female respondents indicated to have at some point considered quitting their PhD studies. Castelló et al. (2017) also found that one third of a sample of doctoral students who were still enrolled had at some point intended to drop out. Furthermore, we observed that the rest of the variables did not cause intention to quit, as none of these variables were statistically significant.

Would recommend PhD route: Regression results.

Table 7. Results of the regression analysis with would recommend PhD route as dependent variable.

| | | Unstandardised coefficients | | Standardised coefficients | t | sig |
|----------|--|-----------------------------|-----------|---------------------------|--------|-------|
| Model | | B | Std error | Beta | | |
| 1 | Constant | 5.096 | 1.001 | | 5.092 | 0000 |
| | Gender [0 = Male; 1 = Female] | -0.463 | 0,79 | -0.247 | -1.662 | 0.104 |
| | Age group | -0.035 | 0.180 | -0.029 | -0.193 | 0.848 |
| | Area of residence [0 = Rural; 1 = Urban] | -0.465 | 0.459 | -0.151 | -1.013 | 0.317 |
| | Employment status [0 = Employed; 1 = Unemployed] | -0.225 | 0.380 | -0.088 | -0.592 | 0.557 |
| 2 | Constant | 4.116 | 1.350 | | 3.050 | 0.006 |

| | | Unstandardised coefficients | | Standardised coefficients | t | sig |
|-------|--|-----------------------------|-----------|---------------------------|--------|-------|
| Model | | B | Std error | Beta | | |
| | Gender [0 = Male; 1 = Female] | -0.065 | 0.294 | -0.035 | -0.222 | 0.826 |
| | Age group | -0.308 | 0.164 | -0.256 | -1.876 | 0.073 |
| | Area of residence [0 = Rural; 1 = Urban] | -0.475 | 0.485 | -0.154 | -0.979 | 0.337 |
| | Employment status [0 = Employed; 1 = Unemployed] | 0.602 | 0.450 | 0.234 | 1.337 | 0.194 |
| | Get internet access from: mobile | -0.995 | 0.291 | -0.506 | -3.421 | 0.002 |
| | Get internet access from: home | 0.000 | 0.318 | 0.000 | -0.001 | 1.000 |
| | Get internet access from: internet café | -0.121 | 0.595 | -0.034 | -0.203 | 0.841 |
| | Get internet access from: work. | 0.411 | 0.305 | 0.227 | 1.346 | 0.191 |
| | My supervisor provides me with choices and options. | -0.546 | 0.277 | -0.658 | -1.970 | 0.061 |
| | My supervisor responds to my queries or requests for help within a reasonable timeframe. | -0.026 | 0.178 | -0.039 | -0.145 | 0.886 |
| | Turnitin guidelines are clear. | 0.219 | 0.135 | 0.293 | 1.617 | 0.119 |
| | My supervisor expects me to publish in high-impact journals. | 0.097 | 0.143 | 0.122 | 0.678 | 0.504 |
| | My supervisor helps me to plan and manage the different research tasks that I must complete. | 0.272 | 0.184 | 0.323 | 1.480 | 0.152 |
| | I have a positive student-supervisor relationship. | 0.057 | 0.327 | 0.067 | 0.176 | 0.862 |
| | My PhD studies are closely linked to my supervisor's research. | 0.006 | 0.136 | 0.009 | 0.042 | 0.967 |
| | I have good access to the library. | -0.145 | 0.113 | -0.200 | -1.279 | 0.213 |
| | Registration was relatively easy. | -0.104 | 0.102 | -0.148 | -1.021 | 0.318 |
| | The cost of my PhD studies is reasonable. | 0.275 | 0.116 | 0.373 | 2.367 | 0.026 |
| | I have integrated my PhD studies with my work life. | 0.437 | 0.174 | 0.507 | 2.506 | 0.019 |
| | I have integrated my PhD studies with my family life. | -0.051 | 0.184 | -0.059 | -0.278 | 0.783 |
| | I have integrated my PhD studies with my social life. | -0.162 | 0.146 | -0.244 | -1.116 | 0.276 |
| | I am satisfied with my overall experience of the PhD learning journey. | 0.303 | 0.105 | 0.361 | 2.881 | 0.008 |

Dependent variable: would recommend PhD route to friends or colleagues.

Model 1: R Square = 0.094. Sig F change = 0.374. Model 2: R Square = 0.727. Sig F change = 0.005.

The results presented in Table 7, in Model 1, show that when including only the background variables of gender, age, area of residence, and employment status, PhD students were more likely to recommend the PhD route to their friends or colleagues. These background factors play an important role in influencing PhD candidates' decision to recommend the PhD route to people around them. Furthermore, when adding other variables, in Model 2, the results revealed that PhD students were mainly accessing the internet through their mobile phone. The reasonable cost of studying towards a PhD also led PhD students to recommend the PhD route to friends and colleagues. The results also highlighted that when students have integrated their PhD studies with their work life, this makes them more likely to recommend doing a PhD to friends and colleagues.

Being satisfied with the overall experience of the PhD learning journey was also statistically significant. In other words, these variables cause PhD candidates to recommend the PhD route to friends or colleagues. So far, it is understandable that cost plays an important role in deciding to pursue a PhD education. A reasonable cost of studying for a PhD will motivate friends or colleagues to enrol in PhD education, as would also help relieve them from other financial burdens. It seems that individuals might be more inclined to participate in activities when they observe others doing so, especially friends and colleagues. It is noted, study-work-life is quite challenging, especially when there is lack of encouragement for support. PhD students who are satisfied with the overall learning journey are more likely to recommend the PhD route to friends or colleagues.

7. CONCLUSION AND DISCUSSION

Main findings

This study investigates the determinants of doctoral success and progression by analysing how overall satisfaction with PhD trajectory influences PhD candidates' success. Success is measured with the following independent variables: being on schedule with their studies, whether they have intentions to quit, and the extent to which they can recommend the PhD route to friends or colleagues. By including this range of independent variables in our estimation model and by concentrating on these four aspects of PhD success, we present a clear position of which factors are more relevant in explaining PhD students' satisfaction, compared to past studies on PhD-related success, which mostly concentrated on only one category of predictors, such as the role of the supervisor (Clowes & Shefer, 2013; Louw & Muller, 2014; Streble & Shefer, 2016) or conversion (Loots et al., 2016). This study therefore reviews the comprehensive role these various factors play in explaining PhD success. These additional factors have mostly not been considered and investigated regarding doctoral success, despite how significant they evidently are to doctoral education and candidates.

By using survey data covering 241 doctoral students at Unisa, a university in South Africa, we discovered that the relatively low amount of explained variation in satisfaction and intention to quit could probably be due to most of the PhD students being employed and located across different countries. The balance of studies with students' work lives could be quite challenging at times and

is likely to cause a consultation gap between supervisor and student. There are fewer doctoral students who are very satisfied than doctoral students who are uncertain whether they are satisfied or not (39% vs 45%). As Morag and Lucilla (2018) stated, since it is common that the PhD student and their supervisor may be in different environments, differing cultural norms and practices may have an impact on both sides' expectations. Martinez et al. (2013) mention that most PhD students understand the value of maintaining a balance between their job and personal lives, while acknowledging the difficulties they often have in time management when juggling several roles and obligations. A more reasonable explanation for our inability to explain the considerable variation in intention to quit is that other factors could push PhD students to consider quitting other than those variables included in our study. A study by Eisenberger and Stinglhamber (2011) revealed that individuals may respond favourably, with higher efforts and more favourable orientation if they experience high support from their supervisor or institution. Lesser intention to quit is affected by the student's perception of fairness and recognition in the way their supervisor treats them (Blau, 1964). This is like self-determination theory, as conceived by Deci and Ryan (2000), which claims that people can reach their maximum potential if their needs are taken into consideration. This will have favourable effects, such as lowering a student's level of intention to quit (Verquer et al., 2003).

Limitations

There are some limitations considered in this study. First, all data were collected at one point in time. One limitation of cross-sectional research is that the direction of the relationship observed between variables is not clear. For instance, we assume that "My supervisor helps me to plan and manage the different research tasks that I have to complete" causes doctoral students to be satisfied. However, it may also be the case that, due to most PhD students being employed and located in different countries, the time difference and lack of a consistent consultation schedule with the supervisor may not produce the desired outcome to improve PhD student satisfaction. So many other instances of a similar nature were also observed. Thus, the current study sheds light on which variables are associated with satisfaction, such as being on schedule, having intentions to quit, and recommending a PhD route, but not on the nature of this relationship.

Second, the data was self-reported, which means it could therefore be skewed by a respondent's present mood. Moreover, some respondents may respond in a manner that is not based on a thorough understanding of the variable at hand but is only for the sake of attending to the survey. This may undermine the accurate influence of the variable on the research findings. Based on the literature, some correlation was expected on the variable "My supervisor helps me to plan and manage the different research tasks that I have to complete". For example, McAlpine and McKinnon (2013) explain that PhD thesis supervisors are a crucial tool for doctoral success since they assist the PhD candidate in the development and writing of their thesis (Erichsen et al., 2014; Ives & Rowley, 2005;) but this was not the case for our findings.

A third limitation is that, although the sample was of a reasonable size, the number of respondents was relatively low. The results were from only one college in one university. As a result, the findings may not be generalisable to other universities and colleges, particularly those in countries with conditions and cultures surrounding doctoral studies that differ vastly from those in South

Africa. One of these key differences concerns finance. In South Africa, Some PhD students receive funding from the NRF, but this bursary fund is insufficient to consider as a main source of income, unlike in many other countries, where doctoral students receive substantial financial support. It has been found that funded PhD students finish their studies faster and perform better than non-funded P.D students (Horta et al., 2019). Another significant distinction is that PhD education in South Africa consists of autonomous research. There is no coursework phase, such as in the US. This could explain our finding of the importance of having a positive student-supervisor relationship in online distance PhD education, which may differ with a coursework system.

Finally, the sample included only PhD students at third-year level and above. Those that have passed through the proposal stage are working on their thesis. However, we assume that including all registered PhD students, including first- and second-year students, could have made some changes to the dependent and independent variables in our analyses.

Implications for research

When other characteristics are adjusted for, this study provides an overview of which elements are uniquely connected to PhD success results. However, there is a lack of understanding of the relationship between the independent variables and how specific relationships between independent and dependent variable's function. Future studies should concentrate on gaining a better understanding of these relationships, such as by investigating interaction effects, structural equation models, and moderation. Longitudinal research is also essential in order to gain knowledge on how supervision, internet access, and integration of PhD studies might change over a time. For example, whether are these variables not contributing to PhD success? Furthermore, qualitative research is required to validate the findings and explain the importance of factors, such as the supervisor's role, internet access, and integration of PhD studies with work, family, and social life.

Lastly, our study lacks a category of major predictors of PhD students' success, namely well-being, especially the financial limitation aspect. Recent studies, including those by Di Pierro (2012b), Geven et al. (2017), Kim and Otts (2010), and Wollast et al. (2018), revealed that financial limitations and insufficient funding affect doctoral student performance and success. Financial stress can cause depression, anxiety, and lack of concentration, and can demotivates students to continue with their studies. It is likely that this also affect their satisfaction, being on schedule with their academic work, their intentions to quit, and discouraging them from recommending the PhD route to friends or colleagues.

REFERENCES

- Abigail, W., and Hill. P. (2017). "Quality in Higher Education Choosing a Research Higher Degree Supervisor: A Framework for Nurses for Nurses." *Quality in Higher Education* 8322: 1–20.
- Ampaw, F. D., and Jeaper, A. J. (2012). Completing the three stages of doctoral education: An event History Analysis? *Research in Higher Education*, 53(6), 640-60-dol
- Andrew, M. (2012). Supervising Doctorates at a Distance: Three Trans-Tasman Stories. *Quality Assurance in Education*, 20(1), 42-53.
-

-
- Badenhorst, C., Moloney, C., Rosales, J., Dyer, J., and Ru, L. (2014). Beyond deficit: graduate student researchwriting pedagogies. *Teaching in Higher Education*, 20(1), 1–11. (QL, NE, H+STEM).
- Bair, C. R., and Haworth, J. G. (2004). Doctoral Student Attrition and Persistence: A Meta-Synthesis of Research. In *Higher Education: Handbook of Theory and Research*, Vol. XIX, edited by J. C. Smart, 481–534. The Netherlands: Kluwer Academic.
- Bekova, S., and Dzharfarova, Z. I. (2019). Happy at Doctoral programs: The connection between employment and learning outcome of PhD students. *Education Studies (MOSCON)*, 1, 87-108.
- Bitzer, E.M. (2012). Best practices for the research doctorate? A case for quality and success in knowledge production. Unisa, press. ISSN 1011. 3487. SAJHE, PP 1182 -1199
- Blau, P. M. (1964). *Exchange and Power in Social Life*. New Brunswick: Transaction Publishers.
- Bolli, T., Hgasist, T., and Geraint, J. (2013). The Impact of institutional student support on graduation rates in USA, PhD program education economies vol. 23. No 4, 396-418.
- Breen, R, & Goldthorpe, J. H. (1997). Explaining education differential: Towards a formal rational action theory. *Rationality and society* 9 (3), 275-305.
- Burnard, P., Dragovic,T., Flutter, J., and Alderton, J. (2016). *Transformative Doctoral Research Practices for Professionals*. Rotterdam: Sense Publishers
- Castelló, M., Pardo, M., Sala-Bubaré, A., and Suñe, N. (2017). Why do students consider dropping out of doctoral degrees? Institutional and personal factors. *Higher Education*, vol 1–16.
- Council of Graduate Schools. (2010). PhD completion project: policies and practices to promote student success. Retrieved from www.phdcompletion.org/information/excutive_summary_student_success_book_iv.pdf.
- Clowes, L., and Shefer, T. (2013). It's not a simple thing, co-publishing: The politics of co authorship between supervisors and students in South African higher educational contexts. *Africa Education Review*, 10(1), 32–47.
- Deci, L., and Ryan, R. M. (2000). What and why of goal pursuit: Human needs and self-determination of behaviour. *Psychological Inquiry* 11(47), 227-268.
- Department of Higher Education and Training. (2020). Are we producing enough doctoral graduates in our universities? Pretoria. Department of Higher Education and Training.
- Di Pierro, M. (2012b). Theoretical foundations for strategies for increasing doctoral students' retention. *The Journal for Quality & Participation*, 35(3), 29-32.
- Ehrenberg, R., Reel, D., and Brewer, D. J. (1991) How Would Universities Respond to Increased Federal Support for Graduate Students?, No 3741, NBER Working Papers, National Bureau of Economic Research, Inc.
- Eisenberger, R., and Stinglhamber, F. (2011). *Perceived Organizational Support: Fostering Enthusiastic and Productive Employees*. Washington, DC: American Psychological Association Books.
- Erichsen, E. A., Bolliger, D. U., and Halupa, C. (2014). Student Statifaction with Graduate Supervision in Doctoral Programs Primarily Delivered in Distance Education Setting. *Studies in Higher Education*, 39(2), 321-338.
-

- Frintner, M. P., Cull, W. L., and Olson, L. M. (2018). Does gender or marital status matter in job selection? *American Academy of Paediatrics*. Retrieved from <https://www.aap.org/en-us/professional-resources/Research/research-findings/Pages/Does-gender-or-marital-status-matter-in-job-selection.aspx>.
- Frasier, H. (2013). An analysis of institutional characteristic that contribute to extended time to doctoral degree. Unpublished doctoral dissertation, University of Maryland, College Park.
- Gardner, S. K. (2010). Faculty Perspectives on Doctoral Student Socialization in Five Disciplines. *International Journal of Doctoral Studies*, 5, 39–53.
- Gansemer-Topf, A. M., and Schuh, J. H. (2006). Institutional selectivity and institutional expenditures: Examining organizational factors that contribute to retention and graduation. *Research in Higher Education*, 47, 613–642.
- Gaule, P., and Piacentini, M. (2018). An advisor like me? Advisor gender and post-graduate careers in Sciences Research policy, volume 47, issue 4.
- Gerard, D., Edmund, T., Margaret, R., and Florence, P. (2019). Determinants of PhD student satisfaction: the roles of supervisor, department, and peer qualities, *Assessment & Evaluation in Higher Education*, 44:7, 1053-1068,
- Geven, K., Skopek, J., and Triventi, M. (2017). How to increase PhD competition rates? An impact evaluation of two reforms in a selective graduate school, 1976-2012. *Research in Higher Education*, 1 -24.
- Gibbs, K. D., and Griffin, K. A. (2013). What do I want to be with my PhD? The roles of personal values and structural dynamics in shaping the career interests of recent biomedical science PhD graduates. *CBE—Life Sciences Education*, 12(4), 711–723.
- Gittings, G., Bergman, M., Shuck, B., and Rose, K. (2018). The impact of student attributes and program characteristics on doctoral degree completion. *New Horizon in Adult Education & Human Resource Development*, 30(3), 3-22.
- Glasser, W. (1998). *Choice Theory: A New Psychology of Personal Freedom*. New York, NY: HarperCollins.
- Golde, C. M. (2005). The role of the department and discipline in doctoral student attrition: Lessons from four departments. *Journal of Higher Education*, 76, 669-700.
- Golde, J. M. (2006). Profiling marital satisfaction among graduate students: An analysis of the perceptions of masters and doctoral students. *Contemporary Family Therapy*, 28, 485-495.
- Groenvynck, H., Vandervelde, K., and Van Rossem, R. (2013). The PhD track: who succeeds, who drops out? *Research Evaluation*, 22(4), 199-209.
- Hands, A. (2018). What doctoral student motivation tells us about the future of Lib Education. *Journal of Education for Library and Information Sciences*, 59(3).
- Hands, A. (2020). What's your type? An examination of first year doctoral student motivation. *Education for Information*, 36, 372-387.
- Ho, J. W., Wong, P., and Wong, L. (2010). What helps and what hinders thesis completion: A critical incident study. *International Journal of Existential Psychology and Psychotherapy*, 3(2), 117-131.
- Horta, H., Cattaneo, M., and Meoli, M. (2019) The impact of Ph.D. funding on time to Ph.D. completion. *Res Eval*. 28(2):182–95.

- Ives, G., and Rowley, G. (2005). Supervision selection or allocation and continuity of supervision: PhD student's progress and outcome. *Studies in Higher Education*, 30(5), 535-555.
- Jones, M. (2013). Issues in doctoral studies - Forty years of journal discussion: Where have we been and where are we going? *International Journal of Doctoral Studies*, 8, 83-104.
- James, A. (2022). Concern overtime PhD candidate take to complete studies. University World. Retrieved from news.com/post PhD.
- Khozaei, S. F., Khozaei, N., and Salleh, N. A. (2015). An exploratory study of factors that affect the research progress of international PhD student from the Middle East. *Education and Training*, 57(4), 448- 460.
- Kim, D., and Ottis, C. (2010). The effect of loans on time to doctorate degree: Differences by race/ethnicity, field of study, and institutional characteristics. *The Journal of Higher Education*, 81, 1-32
- Lindsay, S. (2015). What works for doctoral students in completing their thesis? *Teaching in Higher Education*, 20(2), 183 -196.
- London, J. S., Cox, M. F., Ahn, B., Branch, S. E., and Zephirin, T. (2014). Motivation to pursuing an engineering PhD and perceptions on it adding value: A US-based study. *International Journal of Doctoral Studies*, 9, 205-277.
- Loots, S. and M. Walker. 2016. A capabilities-based gender equality policy for higher education: Conceptual and methodological considerations. *Journal of Human Development and Capabilities* 17(2): 260-277.
- Lott, J. L., Gardner, S., & Powers, D. A. (2009). Doctoral student attrition in the STEM fields: An exploratory event history analysis. *Journal of College Student Retention: Research, Theory and Practice*, 11(2), 247-266.
- Louw, J., and Muller, J. (2014). A literature review on models of the PhD. Johannesburg: Centre for Higher Education Transformation.
- Martinez, M., Ordu, C., Della S., and Mcfarlane, (2013). Striving to obtain a school-work-life balance: The full-time Doctoral student. *International Journal of Doctoral Studies*, Volum, 8.
- McAlpine, L., and McKinnon, M. (2013). Supervision – the most variable of variables: Student perspective. *Studies in Continuing Education*, 35(3), 265-280.
- Morag, A.G., and Lucilla, C. (2018). New perspective in online doctoral supervision: A systematic literature review. *Studies in continuing education*, Vol 41, No 2, 173 -190.
- Mouton, J. (2011). Doctoral production in South Africa: Statistics, challenges, and responses. *Perspectives in Education*, 29(3), 13-29.
- Mouton, J., Van Lill, M., Botha, J., Boshoff, N., Valentine, A., Cloete, N., and Sheppard, C. (2015). A study on the retention, completion, and progress rates of South Africa postgraduate students. CREST, 2015, report.
- NSF (National Science Foundation, National center for science and Engineering statistics) 2018, Doctoral Recipients from U.S. universities 2018. Special report NSF 18-304. Alexandria VA <https://www.nsf.gov/statistics/2018/nsf18304>

-
- Ngulube, P, and Ukwoma, S. C. (2019). Mapping supervision trends in Doctoral Research in Library and information sciences in Nigeria and South Africa: Implication for collective learning. *Afr. J. lib Arch & inf. S.c*, 29(1).
- Okebukola, P. A. (2019). The Role of Higher Education in Building a Knowledge-Driven Economy. Retrieved from <https://www.researchgate.net/publication/337934594>.
- Olive, J. (2019). The impact of longitudinal action research on doctoral student retention and degree completion. the qualitative report. Volume, 24, No 3. 470-482.
- Peltonen, J., Veikkaila, J., Haverinen, K., Rautio, P., & Pyhältö, K. (2017). Interrelations between supervisory researcher community support experiences and risk factors among doctoral students. *International Journal of Doctoral Studies*, 12(1), 157–173 (QN, E, SS+STEM+H).
- Pyhältö, K., Vekkaila, J., & Keskinen, J. (2015). Fit matters in the supervisory relationship: doctoral students' and supervisors' perceptions about supervisory activities. *Innovations in Education and Teaching International*, 52(1), 4–16.
- Roach, M., and Sauermann, H. (2010). A taste for science? PhD scientists' academic orientation and self-selection into research careers in industry. *Research Policy*, 39(3), 422–434.
- Rockinson-Szapkiw, A. J., Spaulding, L. S, and Bade, B. (2014). Competition of education doctorates: how universities can foster persistence. *International journal of Doctoral Studies*, 9, 293-308.
- Schulze, S. (2017). Support practices to provide social capital in open distance learning master's and doctoral students views 39(1), 1-6. *upjournals*.
- Seagram, B. C., Gould, J., & PyKe, S. W. (1998). An investigation of Gender and other Variable on time to completion in Higher Education, 39 (3) 319-339.
- Seo, S., Ahn, J., Huang, W. H., Makela, J. P., and Yeo, H. T. (2021). Pursuing careers inside or outside academia? Factors associated with doctoral students, career decision marking. *Journal of Career Development*, 48(6), 957-972.
- Shin, J. C., Postiglione, G. A, and Ho, K. C. (2018). Challenges for doctoral education in East Asia: A global and Comparative perspective. *Asia Pacific Education Review*, 1-15.
- St. Clair, R., Hutto, T., MacBeth, C., Newstetter, W., McCarty, N. A., and Melkers, J. (2017). The “new normal”: Adapting doctoral trainee career preparation for broad career paths in science. *PLoS One*, 12(7), e0181294.
- Streble, N., and Shefer, T. (2016). Experience of mentorship with academic staff doctoral candidates at a South African university. *Africa Education Review*, 13, 150-163.
- Stock, W. A., and Siegfried, J. J. (2011). 15 years of research on graduate education in economics: what have we learned? The American Economic Association “Graduate study in Economics. Retrieved from www.acaweb.org/graduatestudents.
- Stephan, P. (2012). *How economics shapes sciences*, Vol. 1. Cambridge, MA: Harvard University Press.
- Thiry, H., Laursen, S. L., and Loshbaugh, H. G. (2015). How do I get from here to there?” An examination of PhD science students' career preparation and decision making. *International Journal of Doctoral Studies*, 10, 237–256.
-

-
- Travagliant, F., Babic, A., and Hanse, Z. (2017). Relationship between employment quality and intention to quit: Focus on PhD candidates as traditional workers. *Studies in continuing education*, Vol. 40. No1, 115-131.
- Umbach, P.D., and Porter, S.R. (2002). How do academic departments impact student satisfaction? Understanding the contextual effects of departments. *Research in higher education*, 43, 209 -234.
- Van der Haert, M., Arias Ortiz, E., Emplit, P., Halloin, V., and Dehon, C. (2014). Are dropout and degree completion in doctoral study significantly dependent on type of financial support and field of research? *Studies in Higher Education*, 39(10) 1-25.
- Van de Schoot, R., Yerkes, M. A., Mouw J. M., and Sonneveld, H. (2013). What Took Them So Long? Explaining PhD Delays among Doctoral Candidates.” *PLOS ONE*, 8(7), e68839.
- Van Rooij, E., Fokkens-Bruinsma, M., and Jansen, E. (2021) Factors that influence PhD candidates’ success: the importance of PhD project characteristics. *Studies in Continuing Education*, 43(1), 48-67.
- Verquer, M. L., Terry, A. B., and Wagner, S. H. (2003). A meta-analysis of relation between person-organisation fit and work attitude. *Journal of Vocational Behavior*, 63(3), 473-489.
- Waaijer, C. J. F. (2017). Perceived career prospects and their influence on the sector of employment of recent PhD graduates. *Science and Public Policy*, 44(1), 1–12.
- Wright, T., and Cochrane, R. (2000). Factors influencing successful submission of PhD theses. *Studies in Higher Education*, 25(2), 181-195.
- Wollast, R., Boudrenghien, G., Van der linden, N., Galand, B., Roland, N., Devos, C., Clercq, M., Klein, O., Azzi, A., and Frenay, M. (2018). Who are the doctoral students who drop? Factors associated with the rate of doctoral degree completion in universities. *International journal of higher education* Vol.7, No 4, 2018.
- Woolderink, M. K., Putnik, K., Van der Boom, H., and Klabbers, G. (2015). The Voice of PhD Candidates and PhD Supervisors. A Qualitative Exploratory Study Amongst PhD Candidates and Supervisors to Evaluate the Relational Aspects of PhD Supervision in the Netherlands. *International Journal of Doctoral Studies*, 10, 217–235.
- Zhao, C. M., Golde, C. M., and McCormick, A. C. (2007). More Than a Signature: How Advisor Choice and Advisor Behavior Affect Doctoral Student Satisfaction. *Journal of Further and Higher Education*, 31, 263–281.
- Zhao, Y., and Hong, Y. (2018). An analysis of the factors influencing the academic occupation orientation of PhD graduates. *Chinese Education Society*, 51, 232-243.

SSIRC 2023-042**INFLUENCE OF TRAINING AND DEVELOPMENT ON JOB SATISFACTION AND LOYALTY AMONG ACADEMICS****M.P. Mampuru**

Vaal University of Technology, South Africa

B.A. Mokoena

Vaal University of Technology, South Africa

ABSTRACT

The role of academics as employees of higher education institutions (HEIs) cannot be underestimated. Academics do not only engage in teaching and learning but also render other important support services to students and the institutions. On the other hand, HEIs are faced with a myriad of challenges that have an adverse effect on academics' endeavours and amount of work. This study assessed the influence of training and development on job satisfaction and loyalty among academics in a selected University of Technology. This study adopted a quantitative research approach and a non-probability convenience sampling technique to determine the relationships between training and development, job satisfaction, loyalty among academics. Out of 350 hand-delivered questionnaires, 270 were completed and returned by the participants. A pilot study and pre-testing of the questionnaire were undertaken prior the main study to ensure reliability of the scales. The collected data were analysed through descriptive statistics, correlation analysis, and regression analysis using Statistical Packages for Social Sciences (SPSS) version 26. The relationships between the study's constructs were determined through correlation and regression analyses. All the results of correlational combinations showed that all possible relationships of variables were significant at the 0.01 level. The overall research results revealed the existence of significant positive relationships between training and development, job satisfaction and loyalty. Consistent with the findings of the empirical study and the related reviewed research materials used in this study, recommendations are provided for the institutions and HEIs management in general. The limitations of the study as well were addressed, whilst future research forecasts and opportunities were highlighted. This study is therefore significant in a sense that its findings could be used to establish how Education Training and Development (ETD) affects job satisfaction and loyalty.

KEYWORDS: Academics, HEIs, training and development, job satisfaction, loyalty**1. INTRODUCTION**

Organisations overlooking the significance of employee skills are likely to experience unsuccessful performance and poor productivity. Vidotto, Ferenhof, Selig and Bastos (2017) establish that employees have a set of skills or abilities that could be improved through training and development. Organisational existence and progress are dependent on the extent of training and development made available to the personnel (Papos & Kumar, 2019). Similarly, Younas, Farooq, Khalil-Ur-

Rehman and Zreen (2018) approve that training and development remains the central method of support for employees to acquire additional knowledge, skills, and attitudes. Moreover, it is confirmed (Vasudevan, 2014) that training, and development may well shape and change employees' attitudes making them better and satisfied in their jobs. For this reason, organisations need to invest in their training and development initiatives to amplify the expertise and potential of their employees.

Much research has proved that there is positive result in providing training to an organisation. Tizikara and Mugizi (2017) assert that organisational training and development can positively respond to employee job satisfaction related challenges. Lee (2016); Chipunza and Malo (2017) disclose that organisational support such as training and development, is positively related to restored job satisfaction amongst employees. For HEIs, training and development is essential to address job dissatisfaction challenges posed by the rapid development of knowledge, technological progress, and globalisation (Darling-Hammond, Hyler & Gardner, 2017). In accordance with Abbas (2017), employees experiencing job satisfaction benefit the organisation with improved performance, better loyalty, and reduced turnover.

Training and development keep employees satisfied and motivated in putting extra efforts towards their jobs (Wan, Tan & Mohammad, 2013). Oosthuizen, Coetzee and Munro (2016) approve that employees become satisfied in their workplace as soon as they realise that their competencies are of value to the employer and are rewarded for their proficient contributions. Once satisfied, Kuo (2015) reveals that employees become liable to create emotional commitment toward the employer and remain loyal to the employer's policies. Consistent evidence has been found (Mabaso & Dlamini, 2017) indicating a positive relationship between job satisfaction and better loyalty among academics. Therefore, organisations need to enhance employee job satisfaction through training and development if they are to improve employees' performance, loyalty, and turnover. Equally, institutions of higher learning need to provide academics with further training and development to stimulate their job satisfaction. In accordance with Strenitzerová and Achimský (2019), employee training and development contributes towards the positive relation between employee job satisfaction and employee loyalty.

2. PROBLEM STATEMENT

Despite the extensive research on training and development within HEIs, research has not given the necessary attention regarding the relationship between training and development and job satisfaction and loyalty. Hanaysha (2016) supports this notion by stating that training and development, and its effects on job satisfaction and loyalty has not been adequately explored by researchers, particularly its relation to and influence on academics' job satisfaction and loyalty. Understanding the levels of academics' job satisfaction and loyalty is essential for institutions of higher education to improve their academic commitments. Regardless of the investment in continuous professional development, challenges such as incompetence, lack of job satisfaction, and disloyal among academics in the higher education sector still prevail (Kiplangat, Momanyi & Kangethe, 2016). Naseem and Salman (2015) emphasise that without competent, satisfied, and

loyal academic staff, higher learning institutions become ineffective in fulfilling their academic responsibilities.

Several studies on organisational training and development have been undertaken (Prendergast, 2016; Rodriguez & Walters, 2017; Karim, Choudhury & Latif, 2019). However, relatively few studies have been conducted to provide sufficient empirical evidence on the influence training and development have on job satisfaction and loyalty (Khan, Arif & Rehman, 2015). Most literature on training and development focuses on general benefits such as, employee performance (Rodriguez & Walters, 2017), employee motivation (Ozkeser, 2019), and employee engagement (Praid & Sundaray, 2020). Against this backdrop, this study was undertaken to establish how training and development can affect job satisfaction, loyalty, and retention among employees. Therefore, the study seeks to assess the influence of training and development on job satisfaction, loyalty, and retention among academics at a university of technology.

1. LITERATURE REVIEW

3.1 Theoretical framework

This study was guided by the human capital theory (HCT), the Herzberg's two-factor theory, and the social exchange theory (SET). Becker's (1962) HCT suggest that human capital is an intellectual capital formed by integrating knowledge, skills, and attitudes with an individual's actions (Vidotto, Ferenhof, Selig & Bastos, 2017). As a theoretical approach to organisational career training, HCT is the foundation of comprehensive implementation of ETD interventions (Yamoah 2014). Accordingly, organisations investing in the application of HCT would improve employees' competence and production levels (Kumar & Siddika, 2017). As a matter of fact, training and development represents a principal means through which human capital among academics could be improved in HEIs. Herzberg's two factor theory defines the causes of both job satisfaction and dissatisfaction among employees in their various occupations (Armstrong & Taylor, 2014:173). The theory explores human psychological needs and deals with what motivates workers and what provides hygiene as well as employees' well-being at work (Rathakrishnan, Imm & Kok, 2016). As per Herzberg's two factor theory, job satisfaction or dissatisfaction involves a component of motivator and hygiene factors. Previous studies such as Rahman, Akhter, and Khan (2017) as well as Chipunza and Malo (2017), demonstrated from different contexts Hertzberg's two-factor theory's application and support towards job satisfaction challenges. SET is the basis for all social interactions that emphasise co-dependent relationships among individuals (Chung, Choi, Woo, Lee & Saindon, 2016), as it provides an understanding in managing workplace behaviour effectively (Oparaocha, 2016). Through application of SET, higher learning institutions can know the logic through which transactions in relation to academics' behaviours are shaped (Wu & Lee, 2017). In the same vein, academics will be influenced to be loyal to the institutions that provide them with satisfying relations as a form of social transaction.

3.2 Study constructs

3.2.1 Training and development (TD)

The purpose of training and development in an organisation is to improve skills, knowledge, and behaviours of employees. Trained employees are competent and satisfied in executing their jobs as they are skilled and not upset and nervous about their work performance (Adesola, 2017). On the one hand, Lutaaya and Hoskins (2015) explain that training and development within a higher education setting is necessary to counterbalance many obstacles brought about by the existing multifaceted, knowledge-oriented situation. On the other hand, Council on Higher Education (2017) indicates that training and development awareness for academics is a result of unexpected technological adjustments, publishing burdens, and passion needed to improve the quality of education within institutions of higher education.

It is through training and development that academics' skills could be developed and positively impact their job satisfaction levels (Fletcher, Alfes & Robinson, 2018). Equally, Jehanzeb and Mohanty (2018) accept that taking part in training and development initiatives inspires employees' competent feelings that also improves their job satisfaction. Training and development have positive effect on employee motivation, commitment, organisational trust, and willingness to go extra mile (Paposa & Kumar, 2019). Cooperation by employees to put extra effort in their jobs brings about job satisfaction leading to simplification of the achievement of organisational goals (Rahman, Akhter & Khan, 2017). Pinzone, Guerci, Lettieri and Huisingsh (2019) indicate that organisations devoted in improving employees' capabilities assist such employees to perceive a suitable fit between their skills and the work demands, and this results in an added satisfaction towards their job. In the same way, HEIs providing training to their academics also improves their individual lives which can subsequently increase their job satisfaction levels. Accordingly, the researchers propose the following hypotheses:

H1: Training and development significantly influences job satisfaction.

3.2.2 Job satisfaction

The concept job satisfaction relates to a person's emotions towards work-related expertise and the carrying out of duties (Armstrong & Taylor, 2014). Job satisfaction represents a motivational component which contributes determination towards workers to persevere carrying out their duties reasonably (Tinuoye, Omeluzor & Akpojotor, 2016). Organisational policy, management style, occupational atmosphere, remuneration, development opportunities, and fringe benefits are some of the most important determining factors of job satisfaction (Prasetio, Yuniarsih & Ahman, 2017). Meanwhile, employees can be dissatisfied and start to develop a negative attitude towards their work (Hashish, 2017). Verbruggen, De Cooman and Vansteenkiste (2015) describe that job dissatisfaction is stimulated by workers' work-related expectations that are not achieved due to hostile employment conditions. Employee job satisfaction remains a vital aspect in contributing towards the understanding of an employee's emotional circumstance about both the work and the place of work (Kerdngern & Thanitbenjasith, 2017). Jhajharia and Gupta (2015) accentuate that satisfaction among employees represents a purpose of the degree to which an individual worker's needs are fulfilled in the work. Once their needs are satisfied, Kuo (2015) discloses that employees become liable to create emotional commitment toward the employer. In addition, employees

become satisfied in their workplace as soon as they realise that their competencies are of value to the employer and are rewarded for their proficient contributions (Oosthuizen et al., 2016). Therefore, constructive and encouraging work-related practices should be initiated to stimulate job satisfaction. Besides job satisfaction inspiring employee loyalty, it also enhances organisational efficiency (Uthasuriyan, Talwar, Oon & Ahmad, 2017). Yee (2018) indicates that job satisfaction is also essential in supporting academic staff's loyalty towards achieving great professional commitment, good education as well as higher production of the finest students.

Consequently, the following hypothesis is proposed:

H2: Job satisfaction significantly influences loyalty.

3.2.3 Loyalty

Loyalty represents an individual's trust to maintain a relationship towards the realisation of institutional objectives (Dhir, Dutta & Ghosh, 2020). Singhal (2016) notes that the employer-employee relationship should be of a jointly constructive arrangement which meets both parties' expectation levels. In this way, loyalty remains the relative strength of an individual's identification with and involvement in a particular organisation (Al-edenat & Alhawamdeh, 2018). However, a positive relationship between employee loyalty and institutional effectiveness are encouraged by the vision, culture, and formal policies of the organisation (Razali, Zahari, Ismail & Jasim, 2018). BinBakr and Ahmed (2015) agree that organisations should not merely rely on the abilities of their workforce, but also on how loyalty amongst the workforce could be developed. Imran and Tanveer (2015) single out training and development as a necessary measure to develop workers' contentment, improving their competences, making them more loyal, committed, and supportive towards their organisation. Trained and developed employees have greater affective organisational commitment as opposed to those without training (Bashir & Long, 2015). On the same note, Hussain and Ishak (2017) validate that better production, enhanced job excellence, improved enthusiasm and loyalty, more determination and co-operation are achieved through well-designed training and development programmes.

4. RESEARCH METHODOLOGY

4.1 Research design

Descriptive research design was adopted in this study to collect data in relation to individuals' behaviours, feelings, and practices on matters of social concerns (Leavy, 2017). In addition, the researchers used a quantitative approach to test theory through a conceptual model and to assess the relationships between independent and dependent variables. Quantitative research approach is the best method because of its suitability in the collection of mathematical data through questionnaire analysis (Leavy, 2017).

4.2 Sampling method

A non-probability convenience sampling method was employed to guide the study to its actual statistical estimations based on the research questions and objectives (Babbie, 2014). The

convenience sampling method has the advantage to make simpler the selection of immediate people to participate as respondents in an investigation activity (Creswell & Creswell, 2018). That is, convenience sampling technique assists researchers to collect data from nearby simply available target population. This makes convenience sampling to be more affordable in comparison to other sampling techniques.

4.3 Research instrument and data collection

Questionnaires are appropriate instruments for the achievement of quantitative information (Leavy, 2017). A four-section self-administered questionnaire was used for data gathering in this study. The sections of the questionnaire included a seven-item tool prepared by the researchers to measure respondents' demographic information, a six-item research instrument developed by Schmidt (2004) for measuring training and development, and a five-item research instrument tool adopted from Spector (1985) to measure job satisfaction, while loyalty was measured through a six-item research instrument developed by Savareikiene and Daugirdas (2009). A self-administered questionnaire was preferred because it could be easily controlled and is a less expensive data collecting instruments. Similarly, Kumar (2014) approve that self-administered questionnaires have cost-effective benefit in the gathering of data from a large sample. In ensuring the relevance and effectiveness of the measuring tool, the researchers carried out a pilot study amongst 40 UoT academic respondents who were excluded from the final sample of the main study.

Out of the 350 hand delivered questionnaires, 277 with 7 damaged questionnaires were returned. That is, a total of 270 correctly completed questionnaires were returned, which makes a response rate of 77%. The researcher experienced some challenges that prevented an achievement of 100 per cent response rate. These include unreturned questionnaires, failure to respond, or damaged questionnaires. The damage/s relating to the 7 questionnaires included incomplete questions in certain sections. Meanwhile 73 questionnaires were not collected due to the COVID-19 pandemic outbreak in March 2020.

5. RESULTS AND DISCUSSION

5.1 Sample composition

An equal distribution of males and female respondents with a percentage of (n=135;50%). The dominant age percentage was those of the age group 40 – 49 representing most of the respondents with 34.4 per cent (n = 93). In terms of race, most respondents were Black with 34.8 per cent (n = 94), while the Indian made the least respondents with 5.2 per cent (n = 14). Meanwhile, in general most of the respondents were master's degree graduates with 48.9 per cent (n = 132). The faculty of Human Sciences had the most respondents with 37.8 per cent (n = 102). Most of the respondents with 65.9 per cent (n = 178) were employed in the lecturer position, and 46.3 per cent (n = 125) of the respondents had work experience of more than ten years.

5.2 Reliability and validity measures

The Cronbach’s coefficient alpha was used to measure the internal consistency of the measuring instrument. The recorded Cronbach’s alpha values in Table 1 were all above the acceptable benchmark value of 0.7 (Heale & Twycross, 2015). Consultation with the subject experts in the field of human resource management led to slight changes such as rewording and re-phrasing of the questionnaire scale items to confirm face and content validity. Predictive validity, on the other hand was undertaken through regression analysis (Kumar, 2014).

5.3 Correlation analysis

Correlation analysis was used to assess the extent of the association between the two constant variables considered in the study. As Creswell and Creswell (2018) put it, correlation analysis is necessary to explain the strength and direction of the linear relationship between two variables. Furthermore, quantitative measuring of the relationship between variables can be positive (+1.00), neutral (0.00) or negative (-1.00) (Mu, Liu & Wang, 2018). The correlation matrix shown in Table 2 below indicate that all possible permutations of the study variables were significant at the 0.01 level, which implies a perfect positive relationship (Akoglu, 2018).

Table 1: Correlation analysis and reliability measures

| | | Training & Development | Job Satisfaction | Loyalty | Cronbach Alpha |
|--|---------------------|------------------------|------------------|---------|----------------|
| Training & Development | Pearson Correlation | 1 | .471** | .528** | 0.945 |
| Job Satisfaction | Pearson Correlation | .471** | 1 | .584** | 0.918 |
| Loyalty | Pearson Correlation | .528** | .584** | 1 | 0.948 |
| ** Correlation is significant at the 0.01 level (2-tailed) | | | | | |

5.4 Regression analysis

Before regression analysis was done, a multi-collinearity test was undertaken to determine if the data was suitable for regression analysis. In this study, multi-collinearity was assessed and the results in Tables 3 – 4 below indicate that all the independent variables had VIF values of <10 and tolerance value of >0.10, thus dismissing any multicollinearity threat (Pallant, 2016). Furthermore,

collinearity diagnostics were also considered as part of the multiple regression procedure. In examining Table 1, no evidence of multicollinearity is found in this study as all associations among the study constructs are not greater than +0.70 and -0.70 as advocated by Rubel and Rahman (2018). Based on these values, multicollinearity does not pose a problem in this study.

Table 3: Regression coefficients of the first regression model

| Dependent variable: Job Satisfaction | | Standardised coefficients Beta | T | Sig | TOL | VIF |
|---|------------------------|---------------------------------|---|-------|-------------------|-------|
| Training & Development | | 0.471 | 8.741 | 0.000 | 1.000 | 1.000 |
| R= 0.471 | R ² = 0.222 | Adjusted R ² = 0.219 | R ² change=0.222 | | F change = 76.402 | |
| Independent variables: Training & Development Dependent variable: Job Satisfaction ** significant at p<0.05 | | | TOL=Tolerance value VIF= Variance inflation factor | | | |

The result of the regression model 1 indicated an adjusted R² of 0.219. This suggests that approximately 22 percent of the variance in job satisfaction is accounted for by training and development. Training and development revealed a co-efficient of ($\beta=0.471$) with the p value of <0.05 on job satisfaction. This suggests that training and development (independent variable) contributes towards explaining the variation in job satisfaction (dependent variable) affirming the acceptance of H1. Earlier study by Jehanzeb, Rasheed and Rasheed (2013) demonstrated that training and development is positively related to job satisfaction. All the associations among the study constructs are not greater than +0.70 and -0.70, which represents positive relationships between the constructs. Therefore, with the Training and Development’s co-efficient of $\beta=0.471$ and Job Satisfaction’s p value of < 0.05, the association between these constructs is significant. According to a study by Jehanzeb and Mohanty (2018), participation in training and development programmes stimulates employees’ competent feelings and in turn increases their satisfaction levels.

The result of the regression model 2 indicated an adjusted R² of 0.219. This suggests that approximately 22 percent of the variance in loyalty is accounted for by training and development. Training and development revealed a co-efficient of ($\beta=0.528$) with the p value of <0.05 on loyalty. This suggests that training and development (independent variable) contributes towards explaining the variation in loyalty (dependent variable) thus H2 is accepted. A study by Hussain and Ishak (2017) revealed that well-designed training and development programmes inspire greater job excellence, improved enthusiasm, and loyalty amongst the workers. Literature further confirms that diverse human resources management (HRM) practices, such as career development interventions are used by employers to encourage loyalty among employees (Uthyasuriyan, Talwar, Oon & Rusli, 2017).

The current study drew its findings on data from 270 UoT academics. Largely, the results of the study indicated that training and development have strong effect in ensuring job satisfaction and loyalty amongst employees. Therefore, it can be concluded that there is a significant effect of training and development on job satisfaction and loyalty. The study’s results are comparable to previous studies by Jehanzeb et al., (2013) who found that training and development have positive relation to job satisfaction, and Samwel’s (2018) study which revealed that training and development promote employee loyalty toward organisations. Similarly, the study’s results agree with the findings by Majeed and Shakeel (2017) who identified that training and development interventions are important in empowering workers to be loyal to the organizational procedures and policies.

6. CONCLUSION AND RECOMMENDATIONS

Methods such as correlations and regression analyses were used in this study to present the established predictive relationships in terms of the hypothesised relationships. The internal reliability of the measuring instrument was verified through Cronbach’s alpha coefficient values, while various validity methods were utilised to measure the validity of the measuring tool. Consistent with the findings of the empirical study and the related reviewed research materials used in this study, the following recommendations were suggested for the UoTs and HEIs management in general:

It is recommended that the UoTs executives should develop vibrant knowledge and experience on how to improve academics’ job satisfaction levels through training and development strategies. To realise this, the UoTs’ management needs to have in place training and development procedures that could cope with the challenges related to poor job satisfaction among academics. As the study proved a positive relationship between training and development and job satisfaction, UoTs should further consider teaching and learning related factors with potential to influence job satisfaction or dissatisfaction levels of academics. It is further recommended that the higher education

| Dependent variable: Loyalty | Standardised Coefficients Beta | T | Sig | TOL | VIF |
|---|--------------------------------|---------------------------------|--|-------|------------------|
| Training & Development | 0.528 | 10.139 | 0.000 | 1.000 | 1.000 |
| R= 0.471 | R ² = 0.222 | Adjusted R ² = 0.219 | R ² change = 0.222 | | F change= 76.402 |
| Independent variable: Training & Development Dependent variable: Loyalty ** significant at p < 0.05 | | | TOL = Tolerance value VIF = Variance inflation factor | | |

administrators should improve ways to encourage loyalty among academics. The management of

UoTs should develop initiate training intervention for the work environment to inspire loyalty by introducing rewarding system certification after every successful training programme. As part of inspiring loyalty, it is also recommended that academics should be involved in institutional decision-making structures. In addition, higher education administrators are recommended to improve training and development programmes for the academics to stimulate loyalty toward their jobs and the institutions. To achieve this, the UoTs' management should provide academics with appropriate and consistent opportunities of professional development and advancement in their occupations.

7. LIMITATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

The limited sample size has produced a noteworthy impact on the research findings. The research study aimed at 350 sample sizes of the academics in a selected university of technology. As such, the results contained in this research were based on the number of the respondents in a particular institution, which rendered these results unqualified to represent the overall aspect of the higher education sector. As completion of the questionnaires by the respondents was beyond the researchers' control, biased responses might be provided by some respondents. Therefore, the use of single source data is another limitation with the possibility of common method bias. To mitigate these limitations, future research may consider multiple sources of data collection such as questionnaire survey, focus group, observations, and interviews. In terms of research methodology, this study has various possible limitations. It was limited only to quantitative research approach, thus overlooking other potential results from focus groups and semi-structured interviews. For this reason, future research should utilise mixed methods to provide results based on generalised triangulation methodology. In addition, using mixed methods would have offered the researchers the opportunity to study and understand contradictions between quantitative results and qualitative findings. This would have resulted in better examination of the influence training and development has on academics' job satisfaction and loyalty.

REFERENCES

- Abbas, M. (2017). The effect of organizational culture and leadership style towards employee engagement and their impact towards employee loyalty. *Asian Journal of Technology and Management Research*, 7(2).
- Adesola, A. (2017). *The Impact of Training and Development on Employee Performance in Radisson Blu Anchorage Hotel*. Retrieved from <http://Run.Edu.Ng/Directory/Oermedia/19580619665239.Pdf>.
- Akoglu, H. (2018). User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*, 18(1): 91-93.
- Al-Edenat, M., and Alhawamdeh, N. (2018). The mediating effect of employee's loyalty in the relationship between empowerment and employees' performance: a case from Jordanian SMEs. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8(4), 90-100.

- Armstrong, M., & Taylor, S. (2014). *Armstrong's handbook of human resource management practice*. 13th ed. London: Kogan Page
- Babbie, E. (2014). *The basics of social research: international edition*. 6th ed. Belmont, USA: Cengage Learning.
- Bashir, N., and Long, C. S. (2015). The relationship between training and organizational commitment among academicians in Malaysia. *Journal of Management Development*, 34(10), 1227-1245.
- Binbaker, M. B., and Ahmed, E. I. (2015). An empirical investigation of faculty members' organizational commitment in the Kingdom of Saudi Arabia. *American Journal of Educational Research*, 3(8), 1020-1026.s
- Chipunza, C., and Malo, B. (2017). Organizational culture and job satisfaction among academic professionals at a South African university of technology. *Problems and Perspectives in Management*, 15(2), 148-161.
- Chung, W., Choi, J., Woo, C. W., Lee, S., and Saindon, C. E. (2016). Community relations dealing with a not in my back yard (NIMBY) context: an experimental application of situational theory of publics and social exchange theory. *International Journal of Conflict Management*, 27(3), 424-452.
- Council on Higher Education. (2017). Learning to teach in higher education in South Africa: an investigation into the influences of institutional context on the professional learning of academics in their roles as teachers. *Higher Education Monitor*, 14.
- Creswell, J. W., and Creswell, J. D. (2018). *Research design qualitative, quantitative, and mixed methods approach*. 5th ed. London: Sage.
- Dhir, S., Dutta, T., and Ghosh, P. (2020). Linking employee loyalty with job satisfaction using PLS-SEM modelling. *Personnel Review*, 49(8), 1695 – 1711.
- Fletcher, L., Alfes, K., and Robinson, D. (2018). The relationship between perceived training and development and employee retention: the mediating role of work attitudes. *The International Journal of Human Resource Management*, 29(18), 2701-2728.
- Hanaysha, J. (2016). Examining the effects of employee empowerment, teamwork, and employee training on organizational commitment. *Social and Behavioural Sciences*, 229, 298-306.
- Hashish, E. A. A. (2017). Relationship between ethical work climate and nurses' perception of organizational support, commitment, job satisfaction and turnover intent. *Nursing Ethics*, 24(2), 151-166.
- Heale, R., and Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-Based Nursing*, 18(3), 66 – 67
- Hussain, I. A., and Ishak, A. M. (2017). The Relationship Between Organizational Learning and Employee Engagement, in the Perspective of Young Employees from Commercial Banks in Malaysia. *Journal of Business and Economic Development*, 2, 57-62.
- Imran, M., and Tanveer, A. (2015). Impact of training & development on employees' performance in banks of Pakistan. *European Journal of Training and Development Studies*, 3, 22-44.

-
- Jehanzeb, K., Rasheed, A., and Rasheed, M. F. (2013). Organizational commitment and turnover intentions: impact of employee's training in private sector of Saudi Arabia. *International Journal of Business and Management*, 8(8).
- Jehanzeb, K., and Mohanty, J. (2018). Impact of employee development on job satisfaction and organizational commitment: person–organization fit as moderator. *International Journal of Training and Development*, 22(3): 171 – 191.
- Jhajharia, P., and Gupta, H. (2015). A Study of Employee Satisfaction and Its Impact on Employee Retention in Retail Sector. *IOSR Journal of Business and Management*, 17(7), 1-7.
- Karim, M. M., Choudhury, M. M., and Latif, W. B. (2019). The impact of training and development on employees' performance: an analysis of quantitative data. *Noble International Journal of Business and Management Research*, 3(2), 25-33.
- Kerdngern, N., and Thanitbenjasith, P. (2017). Influence of contemporary leadership on job satisfaction, organizational commitment, and turnover intention: a case study of the construction industry in Thailand. *International Journal of Engineering Business Management*, 9, 1–8.
- Khan, R., Arif, A., and Rehman, A. (2015). Impact of training and development practices on employees' job satisfaction at Pakistan international airline. *IBT Journal of Business Studies*, 11, 145-159.
- Kiplangat, H. K., Momanyi, M., and Kangethe, N. S. (2016). Challenges encountered by university administrators in performance management and job satisfaction of academic staff in Kenyan Universities. *Journal of Emerging Trends in Educational Research and Policy Studies*, 7(6), 383-390.
- Kumar, R. (2014). *Research methodology: a step-by-step guide for beginners*. 4th ed. London: Sage.
- Kumar, D., and Siddika, H. (2017). Benefits of training and development program on employees' performance: a study with special reference to banking sector in Bangladesh. *International Journal of Research*, 5(12), 78-83
- Kuo, S. Y. (2015). Occupational stress, job satisfaction, and affective commitment to policing among Taiwanese police officers. *Police Quarterly*, 18, 27–54.
- Leavy, P. (2017). *Research design: quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. New York: The Guilford Press.
- Lee, Y. (2016). Comparison of job satisfaction between non-profit and public employees. *Non-profit and Voluntary Sector Quarterly*, 45(2), 295–313.
- Lutaaya, C., and Hoskins, R. (2015). Staff training and development in Ugandan private chartered university libraries. *Innovation*, 51(1).
- Mabaso, C. M., and Dlamini, B. I. (2017). Impact of compensation and benefits on job satisfaction. *Research Journal of Business Management*.
- Majeed, A., and Shakeel, S. (2017). Importance of training and development in the workplace. *International Journal of Scientific & Engineering Research*, 8(4).
-

-
- Mohammed, F., and Eleswed, M. (2013). Job satisfaction and organisational commitment: a correlational study in Bahrain. *International Journal of Business Humanities and Technology*, 3(5), 43 – 53.
- Mu, Y., Liu, X., and Wang, L. (2018). A Pearson's correlation coefficient-based decision tree and its parallel implementation. *Information Sciences*, 435(1): 40 – 58.
- Naseem, I., and Salman, M. (2015). Measuring the job satisfaction level of the academic staff. *Journal of Business and Financial Affairs*, 4(2), 1-6.
- Oosthuizen, R. M., Coetzee, M., and Munro, Z. (2016). Work-life balance, job satisfaction and turnover intention amongst information technology employees. *Southern African Business Review*, 20(1).
- Oparaocha, G. O. (2016). Towards building internal social network architecture that drives innovation: a social exchange theory perspective. *Journal of Knowledge Management*, 20(3), 534-556.
- Ozkeser, B. (2019). Impact of training on employee motivation in human resources management. *Procedia Computer Science*, 158, 802–810.
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using SPSS for windows*. 6th ed. Berkshire: Open University Press.
- Paposa, K. K., and Kumar, Y. M. (2019). Impact of Training and Development Practices on Job Satisfaction: A Study on Faculty Members of Technical Education Institutes. *Management and Labour Studies*, 44(3), 248-262.
- Pinzone, M., Guerci, M., Lettieri, E., and Huisingh, D. (2019). Effects of 'green' training on pro-environmental behaviors and job satisfaction: Evidence from the Italian healthcare sector. *Journal of Cleaner Production*, 226, 221-232.
- Praida, P. K., and Sundaray, B. K. (2020). Training and Employee Engagement: An Impact Analysis. *Journal of University of Shanghai for Science and Technology*, 22(11).
- Prasetio, A. P., Yuniarsih, T., and Ahman, E. (2017). Job Satisfaction, organizational commitment, and organizational citizenship behaviour in state-owned banking. *Universal Journal of Management*, 5, 32-38.
- Prendergast, M. (2016). Training and developing non-Irish workers: The perspectives of interested stakeholders. *European Journal of Training and Development*, 40(6), 446-467.
- Rahman, K. U., Akhter, W., and Khan, S. U. (2017). Factors affecting employee job satisfaction: a comparative study of conventional and Islamic insurance. *Cogent Business & Management*, 4(1).
- Rathakrishnan, T., Imm, N. S., and Kok, T. K. (2016). Turnover intentions of lecturers in private universities in Malaysia. *Pertanika Journal of Social Science & Humanities*, 24(S), 129 – 146.
- Razali, N. S. M., Zahari, M. S. M., Ismail, T. A. T., and Jasim, A. R. (2018). Relationship between organizational culture and job loyalty among five-star and four-star hotel employees. *International Journal of Academic Research in Business and Social Sciences*, 8(15), 14–32.
-

- Rodriguez, J., and Walters, K. (2017). The Importance of Training and Development in Employee Performance and Evaluation. *Worldwide Journal of Multidisciplinary Research and Development*, 3(10), 206-212.
- Rubel, M., and Rahman, H. A. (2018). Effect of Training and Development on Organizational Citizenship Behavior (OCB): An Evidence from Private Commercial Banks in Bangladesh. *Global Journal of Management and Business Research: An Administration and Management*, 18(8).
- Samwel, J. O. (2018). Impact of Employee Training on Organizational Performance: Case Study of Drilling Companies in Geita, Shinyanga and Mara Regions in Tanzania. *International Journal of Managerial Studies and Research*, 6(1), 36-41.
- Savareikiene, D., and Daugirdas, L. (2009). *Forms of expressions of employee loyalty*. *Social Research*, 2(16), 86-93.
- Schmidt, S. W. (2004). *Running head: Job training and job satisfaction survey*. East Carolina University.
- Spector, P. E. (1985). Measurement of human service staff satisfaction: development of the job satisfaction survey. *American Journal of Community Psychology*, 12(6):693-713.
- Strenitzerová, M., and Achimský, K. (2019). Employee satisfaction and loyalty as a part of sustainable human resource management in postal sector. *Sustainability*, 11, 1 – 30.
- Tinuoye, G. O. O., Omeluzor, S. U., & Akpojotor, L. O. (2016). Factors influencing job satisfaction of academic librarians in university libraries in Edo and Delta states, Nigeria. *The Electronic Library*, 34(6): 985-996.
- Tizikara, M. K., and Mugizi, W. (2017). Human resource development and employee job satisfaction in a public university in Uganda. *American Journal of Academic Research*, 2, A69-A84.
- Uthyasuriyan, A., Talwar, P., Oon, Y. B., and Rusli, A. (2017). The relationship between employee satisfaction and loyalty: a cross-sectional study in oil and natural gas industry. *Journal of Cognitive Sciences and Human Development*, 2(2), 16-25.
- Vasudevan, M. (2014). Examining the relationship of training on job satisfaction and organizational effectiveness. *International Journal of Management of Business Resources*, 4 (3), 185-202.
- Verbruggen, M., De Cooman, R., and Vansteenkiste, S. (2015). When and why are internal job transitions successful? Transition challenges, hindrances, and resources influencing motivation and retention through basic needs satisfaction. *Group & Organization Management*, 40(6), 744 –775.
- Vidotto, J. D. F., Ferenhof, H. A., Selig, P. M., and Bastos, R. C. (2017). A human capital measurement scale. *Journal of Intellectual Capital*, 18(2), 316-329.
- Wan, F. W. Y., Tan, S. K., and Mohammad, T. M. I. (2013). Herzberg's two factors theory on work motivation: does its work for today's environment? *Global Journal of Commerce & Management Perspective*, 2(5), 18-22.
- Wu, W. L., and Lee, Y. C. (2017). Empowering group leaders encourages knowledge sharing: integrating the social exchange theory and positive organisational behaviour perspective. *Journal of Knowledge Management*, 21(2), 474-491

Yamoah, E. E. (2014). The link between human resource capacity building and job performance. *International Journal of Human Resource Studies*, 4(3).

Younas, W., Farooq, M., Khalil-Ur-Rehman, F., and Zreen, A. (2018). The impact of training and development on employee performance. *IOSR Journal of Business and Management*, 20(7), 20-23.

SSIRC 2023-043**EXPLORING BARRIERS OF REPORTING INTIMATE PARTNER VIOLENCE AGAINST WOMEN IN SESHEGO ZONE 1, LIMPOPO PROVINCE****C.L. Maswanganye**

University of Limpopo, South Africa.

O.R. Chabalala

University of Limpopo, South Africa.

ABSTRACT

Intimate Partner Violence (IPV) is touted as a widespread problem largely affecting women across the globe with long-lasting effects. However, despite high prevalence of this crime [IPV against Women], reporting cases to local South African Police Service (SAPS) remains a never-changing barrier. This qualitative study was guided by exploratory research design. About Seventeen (17) participants were selected using non-probability, also known as purposive sampling, and snowball sampling. Participants were interviewed using semi-structured in-depth face-to-face interviews. The inductive Thematic Content Analysis (TCA) was employed to elicit study themes and sub-themes, aided by audio recordings and written notes. This research found that the incidence of IPV against women is high and has been on the rise over the study period. One of the reasons for this is that victims are not taken seriously when they report the violence to the police. Many of them do not seek help and do not report the abuse to the authorities. Furthermore, it became apparent that lack of awareness about IPV against women and the absence of economic and employment opportunities in the area pose significant barriers to empowering women to stand against violence. It is found that creating awareness and addressing socio-economic challenges can play an essential role in promoting safety and well-being of women affected by IPV in Seshego Zone 1, Limpopo Province. The study recommends that women should be encouraged to report and follow-up IPV cases. It is also suggested that these women should be empowered through community development initiatives to possibly reduce occurrence of this scourge and create safe and supportive environments for them. Thus, targeted strategies to efficiently address this problem are urgently sought.

KEYWORDS: Barriers, Exploring, Intimate Partner Violence, Limpopo Province, Seshego Zone 1, Women.

1. INTRODUCTION

Intimate Partner Violence (IPV) is a pervasive issue that affects women across borders of age, class, income levels, education, culture, and race. It can take several forms, including sexual, physical, and emotional abuse, wherein the acts can be through indecent phone calls, insults, imprecation,

and shouting (Shilubane & Khoza, 2014). Regardless of the form, IPV is a means of regulation by norms that reinforce women's submissive position and helplessness (Carter & Weaver, 2003).

Despite the prevalence of IPV, many women are reluctant to report it due to various barriers. According to the World Health Organisation [WHO] (2018), only one in nine women report incidences of IPV, which is believed to be a gross underestimation of the true extent of the practice. Women are afraid of reporting violent practices against them, as some are not aware of legal provisions in place to protect them (Banda, 2008). Even though significant legislation such as the Domestic Violence Act [DVA] (No. 116 of 1998) is in place to protect women against violence, there are some women who are not aware about it or afraid to report IPV. This Act has effectively implemented several key integrated plans and strategies, including laws against violence, marital rape, and human trafficking in many nations, including South Africa (World Health Report, 2007). The DVA (1998) initiated to ensure the protection of women in South Africa as well as to promote adequate adherence by law enforcement agencies to protect women as much as possible (WHO, 2007).

2. LITERATURE REVIEW

There are notable and highly documented cases of IPV against women across South Africa, including Seshego policing area which is the focus of this study. Seshego region is very similar to many other regions in South Africa. For instance, Dibuseng Moss-Chiliza was shot dead by her husband at a divorce court in Durban (Nene, 2018); Karabo Mokoena was physically abused and killed by her ex-boyfriend (Chabalala, 2018); Nandi Mbizane went missing after last seen with her ex-boyfriend in 2012 (Child, 2012); and Nosiselo Mtebeni, a 23-year-old University of Fort Hare student, was brutally murdered by her boyfriend, with her dismembered body found in a luggage bag placed in a street of East London's Quigney suburb (Malibongwe, 2021). Reeva Steenkamp was also shot by her boyfriend, Oscar Pistorius, who claimed that it was an accident because he had thought she was an intruder. This incident occurred after Oscar Pretorius had woken up in the middle of the night at his Pretoria home (Danniels, 2013).

2.1. Conceptualisation and understanding the nature of the intimate partner violence.

Literature indicates that IPV against women is a world burning issue in both developed and developing countries, including South Africa (Cooper-White, 2011). Identities are vital to the understanding of the IPV against women. Women experience more IPV than men, which is why the development of academic literature on the subject is valuable (Cooper-White, 2011). Further, there may be violence against other genders than women, but most of the crimes are perpetrated against women, and arguably, it is against different types of women. To conceptualisation, Intimate Partner Violence against Women (IPVAW) means practices that degrade and dehumanise women as well as the physical, psychological, and economic acts of abuse (Amoakohene, 2014). Heise (2011) defines this term as any act of GBV that results in, or is likely to result in the physical, sexual, or psychological harm or suffering of women, including threats of such acts, the coercion, or the arbitrary deprivation of liberty, whether occurring in the public or in the private life. Carter and

Weaver (2003) support the above statement by stating that IPVAW refers to a violation of the women's physical and emotional wellbeing which manifests in various forms by their intimate partners.

2.2. International perspective on intimate partner violence against women

According to Mukanangana, Moyo, Zvoushe and Rusinga (2018), globally, efforts have been formulated in a bid to eradicate GBV targeting women. Such policies include: The Convention on Elimination of all Forms of Discrimination against Women of 1979; United Nation [UN] General Assembly (1979); The UN General Assembly of 1993; Fourth World Conference on Women: Action for Development, Equality and Peace, held in Beijing, China, in 1995; The Declaration on Gender and Development on the Prevention and Eradication of violence against women and Children of 1997; and the Domestic Violence Bill of 2006.

Moreover, the Government of Zimbabwe has made strides in addressing Gender-Based Violence (GBV) through the enactment of various pieces of legislation such as the Matrimonial Cause Act (No. 11 of 1987), the Maintenance Act (No. 2 of 1989), Administration of Estates Act (No. 6 of 1997), the Amended Sexual Offences Act (No 8 of 2001), the Criminal Law (Codification and Reform) Act (No. 9 of 2006) and the DVA (No. 14 of 2006). Regardless of all the policies and conferences, the IPV continues to be a thorn in the flesh among women globally, regionally and in Zimbabwe in particular.

Additionally, Yigzaw et al. (2010) highlight that IPV occurs in all countries and transcends social, economic, religious, and cultural groups. According to Yigzaw et al. (2010), studies in Ethiopia have shown that about one-half to two-thirds of women experience one or other forms of spousal abuse at least once in their lifetime. The following acts were mentioned as instances of the IPV: beating with/without an object, burning, forced sex, insults, undermining, not being listened to, calling names, intimidation, and withholding money (Yigzaw et al., 2010). In the same tone, Mkhonto et al. (2014) state that a National GBV Study in Malawi reported the following levels of abuse amongst Malawian women: physical abuse (30%), economic abuse (28%), emotional abuse (25%) and sexual abuse (18%). Falb, Annan, Kpebo and Gupta (2014) confirm that the male perpetrated IPV against women is an egregious human rights concern that has been estimated to occur among 15% to 76% of women. Again, Mkhonto et al. (2014) further indicate that half (49.8%) of rural Ivorian women in community-based sample reported experiencing physical and/or sexual IPV from a male partner at some point in their lifetime, thereby demonstrating that the IPV is commonplace in this region, regardless of the marital status. Falb et al. (2014) mention that in Côte d'Ivoire, a West African nation that has been grappling with armed conflict and political instability for over a decade; both IPV and poor reproductive health of women are concerns.

Besides, the vulnerability of women in Nigeria is an incontestable fact. Nigerian women have suffered various forms of violence and discriminations during the pre-colonial era through the colonial and post-colonial period (Patrick & Ugwu, 2013). Patrick and Ugwu (2013) further highlight that in the northern part of Nigeria, women suffer from the restriction of their freedom of

association and even the right to education because of the practice of purdah: where the girl child is given out early for marriage against her wish and is often sexually abused.

According to Peace (2009), in the United States of America (USA), it is estimated that between two and four million women are victims of domestic violence every year. It is probable that every 18 seconds a woman is a victim of domestic violence. In their study, Peace (2009) explored the barriers that are faced by the victims of domestic violence who are Korean immigrants in the USA and reveals that the Korean community is the main barrier to the prevention of the IPV, as it tends to find fault with the victims of domestic violence and therefore the victim has no way out within their community.

2.3. Prevalence of Intimate Partner Violence against women in South African context

IPV against women is a major social problem in South Africa (WHO, 2016). The National Intimate Partner and Sexual Violence Survey [NISVS] (2010) projects that 47% of women are victims of psychological aggression by an intimate partner in their lifetime, 32% are violence victims, while 16% of women are victims of sexual violence by an intimate partner. According to the WHO (2016), the IPV against women is one of the most widespread violations of human rights worldwide, affecting one in every three women in their lifetime, and often perpetrated by an intimate partner. Also, IPV against women is fast becoming an epidemic in South Africa with an alarming rate which continues to maintain an upward trend. The rate at which women are murdered by their intimate partners is alarming. Consequently, this has raised concerns about the high prevalence of violence in South Africa. For instance, several specific cases of VAW (i.e., the killing of women by their intimate partners) are all pointers to the nature of concerns about security. Despite the prison sentence (32 years) that was placed on the partner of the late Karabo Mokoena, this does not in any way give life back to the victim (Schwartz, 2018).

2.4. The notable causes of Intimate Violence against women

Heise (2011) opines that there is an entrenched belief that men possess strength and power. Some societies believe that men are strong and powerful. As a matter of fact, this is a pointer to the belief in gender norms. Additionally, it is known that women are often perceived as lower than men in terms of power. All of these are witnessed in both spheres of life (public and private) in and around the community. Such imbalance refers to the inequality in gender; little wonder the society inadvertently accepts the cases of IPV against women as though it is a norm. Heise (2011) associates gender norms, the limitations on women's independence and the approval of the IPV against women as what drive men to violate the women's rights in society.

Furthermore, the findings of the study conducted on the IPV against women in Mauritius reveal that the principal causes of violence were unequal power relations, sexual abuse, extra-marital affairs, jealousy and isolation, poverty and dependence on partner, alcohol, and drug abuse (Bhowan & Munbauhal, 2005). According to Peace (2009), in a study on the 'impact of domestic violence' women confess that the causes of aggressive behaviour are jealousy, coupled with poor anger management skills. On the other hand, The Deviant Place Theory (DPT) argues that the more people

visit dangerous places, the more likely they will be exposed to victimisation (Siegel & Worrall, 2013). The dangerous places in this study refer to the places where the victims are likely to experience violence, for example, their intimate partners' place, more especially when they are abusive. Individuals who are more likely to experience IPV in the abuser's place are the ones who stay with the abuser because of poverty and the ones who believe that they love the abuser.

The Social Justice Theory (SJT) argues that wealth and unequal power relations offer victims an opportunity to remain abusive which increases the likelihood of victimisation because abusers are aware that women believe that men possess more economic, political, domestic, and overall decision-making power than women (Kimmel, 2002). The DPT argues that women should leave the abuser's place and start standing on their own feet to reduce the IPV against them. Therefore, the five factors contributing to the IPV against women identified are as follows: Unequal power relations, Jealousy, Poverty, Alcohol abuse and Love for the abuser (Kimmel, 2002).

2.5.Theoretical framework explaining Intimate Partner Violence against women.

This paper is underpinned by two criminological theories, namely the Deviance Place Theory (DPT) developed by Rodney Stark (1989) and the Social Justice Theory (SJT) by Rawls in (1971). According to Siegel and Worrall (2013), the Deviant Place Theory (DPT) proposes a relationship between greater exposure to places of violence and a higher risk of women being victims of IPV. The theory suggests that victims can avoid becoming victims of IPV by avoiding areas where violence is prevalent, such as their abuser's home (Daigle & Mummert, 2014; National Research Council - NRC, 2016). Quinney (2010) argues that the DPT's focus on understanding the causes of norm violations and identifying strategies to prevent IPV makes it a valuable and lasting theory. Victims of IPV can use this theory to identify the causes of IPV and take steps to prevent it. Critics argue that the DPT's emphasis on the macro-level environment neglects the role of individual opportunities and offender selection (Eck & Weisburd, 2005). Furthermore, the theory does not explain why offenders select certain individuals (i.e., target attractiveness) (Eck & Weisburd, 2005).

Further, the Social Justice Theory (SJT) promotes a just society by valuing diversity, challenging injustice, and ensuring equitable treatment and support for human rights. The theory emphasises the equality of all genders and opposes violence against women, including intimate partner violence (IPV). The application of SJT to IPV promotes social justice and adherence to human rights protection, the rule of law, and the fair allocation of resources (Giddings, 2013; Rawls, 2003). SJT is a valuable theory for regulating social institutions and ensuring equitable distribution of primary goods, such as rights, liberties, opportunities, wealth, and income (Rawls, 2003). However, some critics reject the idea of government-directed social justice, as it may be impractical or even immoral, and argue that free societies lack a central distributor to ensure fair distribution of goods and opportunities, leaving women financially dependent on their abusive intimate partners (Zwolinski, 2013)

2.6. Consequences of Intimate Partner Violence

Campbell (2008) suggests that the influence of abuse can persist long after the violence has stopped. The more severe the abuse, the greater its impact on a woman's physical and mental health, and the impact over time of different types and multiple episodes of abuse appears to be cumulative. The consequences of intimate partner abuse are outlined as follows: injury and physical health, mental health and suicide, sexual and reproductive health, homicide and other mortality and effects on children.

Besides, Jewkes and Abrahams (2010) report that cases of violence relate to women who cannot afford to continue with their education. Their study was conducted on 1 306 women who lived in three of South Africa's provinces, namely: Eastern Cape, Mpumalanga, and Limpopo. Additionally, the above-mentioned research reveal that the cases of violence had a relationship with alcohol consumption and the liberal ideas of women's roles. Hence, most of the likely victims (women) appear to be stuck via subordination, emotional manipulation from the abuser, a no-choice of decision other than accepting what norms and standards define. Other areas include the lack of own financial security, panic, humiliation, and the 'motherly' attachment to take care of their children (Artz, 2003).

Artz (2003) reveals that women with disabilities are more likely to experience domestic violence, emotional abuse, and sexual assault than women without disabilities. Women with disabilities may also feel more isolated and feel they are unable to report the abuse, or they may be dependent on the abuser for their care. Like many women who are abused, women with disabilities are usually abused by their intimate partners. Poorer women are exposed to greater violence for multiple reasons. In a household bargaining model that incorporates violence, the lower a woman's income, the worse her bargaining power and the greater the level of IPV. According to Case et al. (2002), poverty exacerbates the abuse because it increases or prolongs the women's exposure to it as it reduces their capacity to leave, and women are therefore more likely to be financially dependent on men. Bhowan and Munbual (2005) indicate that the low socio-economic status probably reflects a variety of conditions that in combination place a woman at greater risk of being victimised. They further argue that an ecological model is more apt to understand the personal, situational, and socio-cultural factors that combine to cause abuse. Women who are less educated and women who grew up in an abusive environment are more likely to be victims of IPV.

2.7. Reasons for the under-reporting of Intimate Partner Violence against women

People who have never been abused often wonder why a person would not just report an abusive relationship. They do not understand that reporting can be more complicated than it seems. Reporting is often the most dangerous time for a victim of abuse because abuse is about power and control. When a victim reports, she is taking control and threatening the abusive partner's power, which could cause the abusive partner to retaliate in very destructive ways (Felson et al., 2002). Some of the reasons why women do not report the violence against them as perpetrated by their male intimate partners include, among others, the victim fearing the abuser, the victim has low self-

esteem and self-doubt, cultural/religious reasons, physical disability and language barriers or immigration status, and lack of money/resources and believing abuse is normal.

2.8.Types of Intimate Partner Violence against women

IPV against women can be physical, sexual, emotional, and even economical. Instances of physical violence include slaps, punches, kicking, beating with a stick, phishing, choking, burning, and the use of weapons such as a gun, knife, and others (Langa-Mlambo & Soma-Pillay, 2014). Men regard physical abuse as a way of disciplining their women and that it is normal to do so. According to the above-mentioned authors, sexual assault is defined as sexually violating another person without such a person's consent. Shilubane and Khoza (2014) contend that women experience emotional violence such as swearing, yelling, and name calling by their partners. Peace (2009) highlights that economic abuse means making one partner to be financially dependent on the other by maintaining complete control over the finances.

2.9. Best approaches to prevent and respond to Intimate Partner Violence

Heise (2011) identifies a set of specific strategies that have demonstrated promise or effectiveness, including: reforming civil and criminal legal frameworks; organising media and advocacy campaigns to raise awareness about existing legislation; strengthening the women's civil rights related to divorce, property, child support and custody; building coalitions of government and civil society institutions; and building the evidence base for advocacy and awareness. In South Africa, there is a campaign called 16 Days of Activism against Women and Child Abuse. In the rest of the world, this has been adopted to mitigate cases of VAW and children together with IPVAV with a view to increasing the rate at which people become aware of the menace (WHO, 2018). This awareness campaign is usually held yearly between late November and early December. Despite these efforts, the criminal justice should arrest and prosecute perpetrators to curb the menace of the IPVAV in society.

3. METHODOLOGY

This study employed a qualitative research approach, specifically an exploratory research design, to explore the barriers faced by women in reporting incidents of IPV in Seshego Zone 1, Limpopo Province. Qualitative research is concerned with generating descriptive data, usually in the form of spoken or written words, to gain insights into a particular phenomenon (Dane, 2007). By adopting an exploratory research design, which is commonly used to gain new insights into a research problem (Creswell, 2013), this study aimed to uncover new data and gain a deeper understanding on the barriers that prevent or discourage women from reporting incidents of intimate partner violence (IPV) in Seshego Zone 1, Limpopo Province

Non-probability sampling method was used, specifically the purposive and snowball sampling methods. Non-probability sampling is a technique where samples are gathered in a process that does not give all individuals in the population equal chances of being selected (Walker & Maddan, 2009). The use of non-probability sampling allowed the researcher to reach specific categories of

participants who may have been hard to reach using probability sampling, specifically women who have experienced IPV (Walker & Maddan, 2009). These methods were employed to ensure that the study included participants who had first-hand experiences of IPV and could provide valuable insights into the barriers to reporting such incidents. This study began with purposive sampling where the researchers purposively selected the elements of inclusion of women who experienced IPV. After interviewing the first participants, the researchers asked them to refer them to other women who experienced IPV (that is, snowballing sampling).

Data from participants were obtained using an interview schedule guide. The interview schedule guide was designed in English for consistency, and efforts were made to ensure that the questions were as short and simple to understand as possible. The interview schedule guide was specifically designed to gather the data on barriers of reporting IPV against women in Seshego Zone 1. The interview schedule guide consisted of several sections, starting with section A which gathered background information about the research population. This was followed by section B which consisted of a series of questions aimed at exploring the participants' knowledge regarding the barriers to reporting IPV in Seshego Zone 1.

Further, two main data collection methods were used, namely face-to-face in-depth semi-structured interviews and documentary studies. A total of 17 participants were interviewed, and data saturation was reached after the 17th interview. Data were written down and audio recorded with permission from the participants. The researcher personally undertook the data retrieval. The interviews were conducted during the COVID-19 pandemic and measures were taken to ensure the safety of both the researchers and participants. The authors employed a qualitative content analysis technique to analyse the data because of its ability to comprehensively examine and record trends within the collected data. The authors transliterated the retrieved data to understand their views on the barriers of reporting IPV against women. Conclusions were drawn from the results while they were presented.

4. FINDINGS AND DISCUSSIONS

This article aimed to explore the barriers of reporting IPV against women in the Seshego Zone 1, Limpopo Province. The research employed a qualitative approach, utilising purposive and snowball sampling to select 17 participants who were interviewed face-to-face using in-depth semi-structured interviews. Inductive TCA was used to analyse the collected data which were recorded and transcribed to enhance the study's findings. Themes and sub-themes were derived from the participants' verbatim expressions to facilitate data analysis and discussion. Several themes emerged from the study, which reflected the participants' barriers of reporting IPV. Themes were analysed and discussed in detail to present the research's major findings. Additionally, verbatim quotes from the raw data were used to support and substantiate the significant findings.

Overall, the study revealed that IPV against women in the Seshego Zone 1 area of the Limpopo Province is a prevalent issue that is often underreported due to various barriers, including fear of retribution, societal norms, and cultural beliefs, lack of support and resources, and inadequate legal

protection. This article also established that the high rate of IPV against women cases are because the victims are not taken seriously when reporting cases. Furthermore, it became apparent that a lack of awareness about IPV against women and the absence of economic and employment opportunities in the area pose significant barriers to empowering women to stand against violence. It is found that creating awareness and addressing socio-economic challenges can play an essential role in promoting safety and well-being of Women affected by IPV in Seshego Zone 1, Limpopo Province. Women should be encouraged to report and follow-up IPV cases. These Women should also be empowered through community development initiatives in order to possibly reduce occurrence of this scourge and create safer and supportive environments for them. Targeted strategies to efficiently address this problem are urgently sought.

Theme 1: The occurrence/prevalence of the violence against women by intimate partners

This theme stipulates the participants' views regarding the occurrence/prevalence of the IPV against women. The participants reported that the IPV against women was prevalent in Seshego Zone 1. The expressed views by the participants concur with paragraph 2.3 of this study where the WHO (2016) highlighted that the IPV against women is one of the most widespread violations of human rights worldwide as it was affecting one in every three women in their lifetime, and it was often perpetrated by an intimate partner. The IPV against women remains one of the most serious and ongoing challenges for international development agencies, governments, and civil society across the globe. The following verbatim quotation were shared by one of the selected study participants:

“To me, it happens daily, I am emotionally violated almost every day of the week. It's like it has become a habit for my partner to call me names whenever he feels like it” (Participant 1, 30 years).

Despite the prevalence of IPV, women are often hesitant to report it due to fear, lack of awareness of legal protections, and cultural factors. The study found support from the DPT which proposes a relationship between greater exposure to places of violence and a greater risk of women being victims of IPV. Women who visit or stay in the abuser's place are at higher risk of experiencing IPV. The DPT suggests that women should avoid places where they may experience violence to reduce the likelihood of IPV.

Theme 2: The causes of the violence against women by intimate partners

The research participants have shown that jealousy, poverty, and inequality are the common contributing factors of the IPV against women in Seshego Zone 1. The findings are supported by Peace (2009) and Bhowan and Munbauhal (2005) in Paragraph 2.4 of this study who agree that jealousy, coupled with poor anger management skills and low socio-economic status probably reflect a variety of conditions that in combination place a woman at greater risk of being victimised. The following verbatim quotations were shared by the selected participants of this study:

“My partner has trust issues, whenever we go out, I must explain when we got home why men were looking at me. According to him, it means I gave them the impressions to look at me and if I do not answer his questions, he would slap me” (Participant 3, 22 years).

“Yhoo! The guy is very insecure; he thinks I am cheating with my colleagues. He wanted a full access to my phone, my Facebook login details and every time we met, he’d go through my WhatsApp and messages just to check my movements and I don’t have access to his phone and its always off” (Participant 11, 27 years).

“I stayed in an abusive relationship because of poverty. Whenever I think of leaving him, I start thinking that I have nowhere to go and have no one to feed me. My parents died long time ago while I was young, and I did not finish school” (Participant 1, 30 years).

Theme 3: Reasons for not reporting the intimate partner violence against women.

In paragraph 2.6 of this study, Felson *et al.* (2002) support this finding by indicating that people who have never been abused often wonder why a person would not just report an abusive relationship. They do not understand that reporting can be more complicated than it seems. The following was shared by the selected participants:

“My financial problems are stopping me from reporting him because no one will provide for me if he goes to prison. My kids will also suffer because I am not working” (Participant 15, 43 years).

“When I fell pregnant, my father chased me out of the house, the only place I could go to was my boyfriend’s place. He then started to abuse me knowing that I cannot report him because I am unemployed, I cannot afford to pay rent and I have no place to go. He is still abusing me, and I am still with him because I do not know where I can go. People think it’s easy, but to tell the truth; it is only easy when you have a supportive family or parents” (Participants 16, 29 years).

“I did not report it because of fear of relapsing back to poverty life and again my partner is from a close family, so I was afraid of damaging his future by reporting him” (Participant 13, 33 years).

“I have a fear of losing him because I do not want my children to grow up without a father, and I cannot afford to support them alone since I don’t have any source of income” (Participant 8, 29 years).

“I did not report it because I was embarrassed of the family issues, I was protecting him while he was sleeping with different girls in our home and knowing that the police will not take me seriously if I report such things. My children were also encouraging me not to report him thinking that he will change, and they also wanted to have a father figure in the family” (Participant 12, 52 years).

“It is because we are not taken seriously when reporting the violence. This thing of reporting someone and then tomorrow you see them roaming the streets should end because they will not refrain from being violent as they know their charges do not last” (Participant 2, 24 years).

“The process of reporting is too long and stressful and the justice does not take us serious”
(Participant 14, 30 years).

The findings from the above section prove that love, lack of money, embarrassment, fear, believing that abuse is normal, and the lack of police interference are the key reasons for not reporting violence. The most common reasons for not reporting violence in Seshego Zone 1 are lack of money, believing that abuse is normal, victims’ fear of being followed by embarrassment and the lack of police interference. It is apparent that the least reason is love.

Theme 4: The different kinds of intimate partner violence against women committed in Seshego Zone 1

The findings of this study indicate that there are two different kinds of IPV against women namely: physical, and emotional abuse. In cases of emotional abuse, the victims often begin to doubt themselves and second-guess all their decisions. This can prevent them from getting the help they so desperately need. The following verbatim quotations were shared by the selected participants of this study:

“He would insult me about my body size saying I am full of fats and worse he ended up insulting me about my HIV status, that is when I decided to end things and made a promise to myself that I will never ever disclose my HIV status to anyone onwards” **(Participant 7, 33 years).**

“Iyhoo, I got married, my father paid off his debt, so he could start off a good life, only to sign up for hell and abuse, ended up with some physical and emotional scars that made me to fear men even today. He accused me of cheating and then hit me and locked me in a room where I was stuck inside the whole day” **(Participant 15, 29).**

The findings from the participants reveal that physical abuse was prevalent. The participants clearly explain that their partners have been slapping, punching, kicking, and beating them. A woman whose father has used her *lobola* to pay off his debt may find it difficult to report the abuse in case the abuser demands his money back.

Theme 5: The best approaches to reduce or end the intimate partner violence against women.

The findings in the section below show that for the IPV against women to be reduced or prevented, there is a need for support groups and awareness campaigns in the community. In addition, the justice system should be strengthened by police investigations. Educational talks for women need to be conducted so that they can learn to stand on their own. Women must be encouraged to start small businesses so that more jobs are created. Victims should be encouraged to report cases of the IPV.

The following quotations were shared by the selected participants of this study:

“There should be an ongoing programme in communities that talks about these different types of violence against women, that both men and women should attend to learn more on how to deal with these issues” (Participant 2, 24 years).

“I think the solution to this is we as women should not depend on men, to take care of us and to speak out, speaking to others helps to leave a toxic relationship. Women who are not working should start small businesses and stand in their own shoes. According to my observation independent women are less likely to be victims of abuse” (Participant 6, 34 years).

“Families should have a close relationship with their kids and make them feel free to talk to them about anything. Crime is crime whether caused by family members or not (Participant 4, 38).

“I think it can be reduced by educating woman about partner violence and creating awareness to woman so that they know what partner violence is, train them to stand up and speak up about partner violence. This will encourage other women to speak up and have some strength to go and report cases of intimate partner violence” (Participant 17, 29 years)

5. CONCLUSION

This article concludes that there is a growing level of barriers of reporting IPV against women in South Africa, for example, the victim fears the abuser, low self-esteem and self-doubt, lack of money/resources and believing abuse is normal. Despite the introduction of legislative and policy measures, the barriers of reporting IPV against women continue to be a serious challenge in the country because women still do not report the IPV against them. The aim of the research was to explore barriers of reporting IPV against women. This study found the following forms of abuse: emotional and physical abuse committed by the participants’ intimate partners. The participants reported that the violence happens frequently and that victims are reluctant to report it. According to Siegel and Worrall (2013), the DPT proposes that the greater exposure to places of violence increases the risk of women being victims of IPV. Therefore, women should avoid places where they experience violence. The study also highlights the need for increased awareness and education on legal provisions that protect women from IPV. This study recommends the promotion of public awareness campaigns to educate women about the importance of reporting and the available support systems; this public awareness can also offer empowerment programmes that educate women about their rights and encouraging them to report abuse. Furthermore, the study suggests that there should be programmes where community leaders openly discuss IPV and ensure that the support does not end at reporting but provide ongoing resources for victims to rebuild their lives. The study concludes that more work needs to be done to address the pervasive issue of barriers to reporting IPV against women in South Africa.

REFERENCES

- Amoakohene, I. M. (2004) 'Violence against Women in Ghana: A look at Women's Perceptions and review of Policy and Social responses. Republic of Ghana. *Social Science and Medicine*, 59(11):2373-2385.
- Artz, L. (2003). *Magistrates and the domestic violence Act: Issues of interpretation*. Cape Town: University of Cape Town.
- Banda, F. (2008). Building on a global movement: Violence against women in the African context. *African Human Rights Law Journal*, 8(1):1-22.
- Bhowan, U. & Munbauhal, H. (2005). Violence against women: Experiences of women in Mauritius. *Gender and Behaviour*, 3(1): 383-395.
- Campbell, J. C. (2008). The intersection of intimate partner violence against women and HIV/AIDS: a review. *International Journal of Injury Control and Safety Promotion* 15(4):221–231.
- Carter, C. & Weaver, C. (2003). *Violence and the media*. Buckingham (England): McGraw-Hill Education (Open University Press).
- Case, A., Lubotsky, D. & Paxson, C. (2002). Economic Status and Health in Childhood: The Origins of the Gradient. *American Economic Review*, 92(5):1308–1334.
- Chabalala, J. (2018). Mantsoe admitted killing Karabo Mokoena. *News24*, 18 April, p.1.
- Child, K. (2012). Still no trace on missing Nandi. *Times live*, 05 April. Available from: <https://www.timeslive.co.za/news/south-africa/2012-04-05-still-no-trace-of-missing-nandi>. [Accessed: 21/07/19]
- Cooper-White, P. (2011). Intimate violence against women: Trajectories for pastoral care in a new millennium. *Pastoral Psychology*, 60: 800-855.
- Creswell, J. W. (2013). *Qualitative inquiry and research design. Choosing among five approaches*. (3rd ed.) New York: SAGE.
- Daigle, L. E. & Mummert, S. J. (2014). Sex-role identification and violent victimization: Gender differences in the role of masculinity. *Journal of Interpersonal Violence*, 29(2): 255–278.
- Dane, F. C. (2007). *Research methods pacific grove: Definitions of discrimination*. California: Brookes/Cole.
- Danniels, L. (2013). We remember Reeva Steenkamp. *Independent Online News*, 19 August 2013. Available from: <https://www.iol.co.za/news/south-africa/gauteng/we-remember-reeva-steenkamp-16629955>. [Accessed: 21/07/19]
- Eck, J. E. & Weisburd, D. (2005). *Crime in places in crime theory*. Washington D.C: University of Maryland.

-
- Falb, K. L., Annan, J., Kpedo, D. & Gupta, J. (2014). Reproductive coercion and intimate partner violence among rural women in Côte d'Ivoire: a cross-sectional study. *African Journal of Reproductive Health*, 18(4):61-69.
- Felson, R. B., Messner, S. F., Hoskin, A. H., & Deane, G. (2002) Reasons for reporting and not reporting domestic violence to the police. *Criminology*, 40(3):617-647.
- Giddings, J. (2013). Access to justice: The social responsibility of lawyers: The Challenge of Providing Legal Representation in the United States, South Africa, and China. *Journal of Law & Policy*, 47(7):44-67.
- Heise, L. (2011). *What works to prevent partner violence? Evidence overview*. London: Department for International Development.
- Jewkes, R. & Abrahams, N. (2010). *The epidemiology of rape and sexual coercion: An overview of social science and medicine*. Cape Town: South African Medical Research Council.
- Kimmel, M. S. (2002). Gender Symmetry in Domestic Violence: Violence against Women. *A Substantive and Methodological Research Review*, 8: 1332-1363.
- Langa-Mlambo, L. & Soma-Pillay, P. (2014). Violence against women in South Africa. *In Obstetrics and Gynaecology Forum*, 24(2):17-21.
- Malibongwe, D. (2021). Nosiselo Mtebeni murder: Student leadership at University of Fort Hare calls for death penalty. *News24*. 25 August 2021, p.2.
- Mkhonto, F., Sengane, M. & Havenga, Y. (2014). Experiences of women on intimate partner violence in a public hospital in Tshwane, South Africa. *African Journal for Physical, Health Education, Recreation and Dance*, 1(2):333-351.
- Mukanangana, F., Moyo, S., Zvoushe, A. & Rusinga, O. (2018). Gender Based Violence and its Effects on Women's Reproductive Health: The Case of Hatcliffe, Harare, Zimbabwe. *African Journal of Reproduction Health*, 18(1): 110-122.
- National Intimate Partner and Sexual Violence Survey (NISVS). (2010). *Findings on Victimization by Sexual Orientation*. US Department of Justice: Office of Justice programmes.
- National Research Council. (2016). Intimate partner violence on older South African women. *South African Medical journal*, 1(20): 3-10
- Nene, N. (2018). Court shooting. *Sunday Tribune*, 02 December. Available from: <https://ewn.co.za/2018/11/26/police-probe-motive-behind-durban-court-shooting>. [Accessed: 03/08/19]
- Patrick, J. M. & Ugwu, A.N. (2013). Culture and gender-related violence against women in Ogoni ethnic nationality in Nigeria: Implications for adult education. *Gender and Behaviour*, 11(2):5804-5811.
-

Peace, C. (2009). The Impact of Domestic Violence on Society. *Politics, Bureaucracy and Justice*, 1(1): 22-26.

Quinney, R. (2010). *The social reality of crime*. Boston: Little Brown.

Rawls, J. (2003). *A theory of justice*. Cambridge: Press of Harvard University Press.

Republic of South Africa. (1998). *The Domestic Violence Act (No. 116 of 1998)*. Pretoria: Government Printers.

Schwartz, A. (2018). *Mantsoe 'a devil in disguise', sentenced to 32 years*. Available from: <https://mg.co.za/article/2018-05-03-mantsoe-a-devil-in-disguise-sentenced-to-32-years> [Accessed: 04/06/18].

Shilubane, H. N. & Khoza, L. B. (2014). Violence against women in Limpopo Province, South Africa: Women's health issues. *African Journal for Physical, Health Education, Recreation and Dance*, 1:(1), 83-93.

Siegel, L. J. & Worrall, J. L. (2013). *Essentials of criminal justice*. Belmont, CA: Wadsworth/Cengage Learning.

Walker, T. J., and Maddan, S. (2009). *Statistics in Criminology and Criminal justice: Analysis and interpretation*. Boston: Jones publisher.

WHO. (2018). *Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence*. Geneva: WHO.

World Health Organisation [WHO]. (2007). *Engaging men and boys in changing gender-based inequity in health: Evidence from programme interventions*. Geneva: WHO.

World Health Report, (2001). *Injuries and Violence Prevention: A Vision for All*. Geneva: WHO.

World Health Report. (2007). *World report on violence and health: A vision for all*. Geneva: WHO.

Yigzaw, T., Berhane, Y., Deyessa, N. & Kaba, M. (2010). Perceptions and attitude towards violence against women by their spouses: A qualitative study in Northwest Ethiopia. *Ethiopian Journal of Health Development*, 24(1):39-45.

Zwolinski, M. (2013). Social justice critiques. *Journal of Value Inquiry*, 42 (2):147-165.

SSIRC 2023-046**SUSTAINING HIGHER EDUCATION INTERNATIONALISATION
SERVICE LEVELS POST-COVID-19****L. Steynberg**

Hebei University of Technology, Tianjin

J.P. Grundling

University of Johannesburg, Soth Africa

B. Liu

Hebei University of Technology, Tianjin

Y. Li

Hebei University of Technology, Tianjin

ABSTRACT

Introduction: Higher education institutions (HEIs) are vital in promoting international cooperation and mutual understanding, but COVID-19 disrupted the global higher education internationalisation landscape. This paper proposes a conceptual model for sustainable internationalisation to integrate into HEIs' academic, research and service systems. The model guides policymakers to develop effective internationalisation service delivery strategies aligned with international standards during crises. In addition, HEIs must prioritise innovation, service value propositions, quality systems and government collaboration to secure funding.

Methodology: The research employed a constructivist grounded theory approach to develop a crisis-ready model for internationalisation service delivery in higher education. Three transformative enablers were identified through a qualitative documentary sampling approach and axial and open coding. The approach was ideology free to ensure broad national and cross-national applicability.

Results: Three transformative enablers, namely scholar-centric higher education internationalisation, higher education internationalisation resilience and higher education internationalisation way-power require higher education policies to prioritise sustainable transformation and support international scholars. HEIs must prioritise safety, collaboration, and support, adapt to changes in technology and the pandemic, and promote equitable and accessible education. Recent research underscores the importance of policymaking, quality, and collaboration in building resilience and serving international students via technology.

Recommendations: Institutions of higher education should prioritise stakeholder needs, navigate global challenges through partnerships, prioritise mental and physical well-being, modernise policies, establish global partnerships, and prioritise sustainability and resilience through long-term planning and continuous improvement. HEIs should also embrace technology to enhance service delivery and tailored education.

KEYWORDS: sustainability, higher education, internationalisation, way-power, resilience, service delivery

1. INTRODUCTION AND BACKGROUND

Internationalisation is crucial for HEIs as it brings numerous benefits, such as academic quality, assurance, prestige, revenue, and cultural diversity (Ndaipa, Edelström & Geschwind, 2022). International students prefer reputable HEIs with innovative learning practices for personal and career development (Zou, 2022). To integrate internationalisation into HEIs' academic, research and service systems, this paper aims to analyse key constructs related to internationalisation and develop a conceptual model for sustainable higher education internationalisation.

Institutions of higher education play a significant role in advancing international cooperation, promoting mutual understanding, and building capacity, which results in a more peaceful and prosperous world (Buckner et al., 2022; Sabzalieva, 2022; Tran et al., 2023).

Internationalisation efforts benefit international scholars by improving their language skills, providing intercultural communication experiences, and increasing employment opportunities (Zharov et al., 2022). Internationalisation is linked to scientific and technological progress and economic development (Zharov et al., 2022). However, the COVID-19 pandemic has caused disruptions across HEIs globally, intensifying social inequalities and necessitating significant transformations (Sabzalieva, 2022; Zou, 2022).

To build sustainable internationalisation strength, HEIs need innovative models promoting sustainability, including institutional resilience, quality research, teaching and learning, and competencies enabling individuals and HEIs to succeed in a globalised world (Buckner et al., 2022). Prioritising sustainable internationalisation enhances HEIs' reputation, increases access to resources and opportunities, and promotes social and economic development. Therefore, developing sustainable internationalisation models is vital for HEIs to adapt to changing circumstances and build strength in the globalised world.

The post-COVID-19 era will transform higher education internationalisation, particularly concerning international mobility, education linkages, educational growth and attracting top scholars worldwide (Ammigan, Chan & Bista, 2022; Goodman & Martel, 2022; Ubogu & Orighofori, 2020; Watterston & Zhao, 2023). To thrive in this new era, HEIs must adopt innovative approaches to internationalisation and prioritise enhancing their service value propositions. As part of the internationalisation process, quality is critical for HEIs (Fatima et al., 2022). Therefore, HEIs must prioritise quality to attract top talent and maintain their competitive edge in the global higher education landscape.

Post-COVID-19, internationalisation service delivery by HEIs demands more than just converting existing approaches. Therefore, HEIs must institute quality systems across the institution to satisfy stakeholders on multiple fronts, including quality processes, service environment and outcomes, as outlined by Camilleri (2021), and collaborate with governments to secure adequate funding for internationalisation efforts (Jampaklay, Penboon & Lucktong, 2022; Watterston & Zhao, 2023).

In the forthcoming sections of this paper, a comprehensive analysis will be presented regarding the three transformative enablers identified in the research: scholar-centric higher education internationalisation, higher education internationalisation way-power, and higher education internationalisation resilience. The discussion will emphasise the importance and implications of these enablers in developing a model for internationalisation service delivery in higher education that can effectively respond to crises. Additionally, the paper is structured to guide readers as they navigate through the methodology, findings, and suggestions that constitute the fundamental insights of the study.

2. METHODOLOGY

2.1 SELECTION OF GROUNDED THEORY

The researchers in this study employed a rigorous Grounded Theory methodology to extract valuable insights and develop a comprehensive model for effective internationalisation service delivery in higher education. Grounded Theory research provides a versatile framework for constructing theories and enables a comprehensive analysis of the studied phenomena. Grounded Theory research consists of multiple variants, each characterised by its unique methodology and philosophical underpinnings.

Three pertinent variants exist in Grounded Theory research, namely Constructivist Grounded Theory, Traditional Grounded Theory, and the variant that Corbin and Strauss have further explored. Choosing a particular variant of Grounded Theory holds significant importance in research, as it influences the entire research endeavour, from collecting data to constructing theoretical constructs (Charmaz, 2006; Glaser, 1967; Corbin & Strauss, 1990).

In this study, the research objectives led to selecting Constructivist Grounded Theory, formulated by Charmaz (2006), as the most appropriate approach. Charmaz's variation on research methodology emphasises the interpretative and constructivist dimensions, highlighting the pivotal significance of researchers' interpretations and contextual circumstances in the process of theory formation. Considering the nature of the research, which entails comprehending and enhancing the provision of internationalisation service delivery within the constantly evolving context of higher education, this method was considered pertinent. This approach extensively examines the experiences and viewpoints of various stakeholders engaged in internationalisation, including international students, faculty members, staff, scholars, and governmental bodies.

2.2 Data Collection and Analysis

After adopting the Constructivist Grounded Theory approach proposed by Charmaz, the researchers proceeded to collect and analyse data following the principles of this particular methodology.

2.2.1 Data Collection

A qualitative documentary sampling approach was used to gather relevant data, specifically emphasising the literature on the COVID-19 pandemic and the internationalisation of higher education. This approach facilitated the systematic inquiry into the effects of the pandemic on

internationalisation service delivery and the responses of HEIs. The data corpus was constructed by carefully selecting a total of 31 publications, encompassing two book chapters published between 2020 to 2023. Internationalisation relevant material in the English language was assisted by doing a thorough keyword search, specifically targeting three core terms: "higher education," "internationalisation," and "service delivery." The incorporation of abstracts throughout the screening procedure facilitated the recognition of significant themes and adjustment constructs directly associated with the operations of HEIs in the context of internationalisation.

2.2.2 Data Analysis

The data analysis phase was conducted following the principles of Constructivist Grounded Theory outlined by Charmaz (2006)—the analytic approach involved open and axial coding techniques, considered essential in constructivist grounded theory research. During the initial phase of open coding, the data gathered underwent a systematic process of deconstruction, wherein distinct components were recognised and categorised based on unique concepts and ideas. This phase facilitated an initial examination of the data, enabling the research team to discern patterns, recurring themes, and emerging concepts. Subsequently, the axial coding stage was implemented to enhance and further explore the prospective categories and themes identified in the initial open coding phase. This process entailed establishing connections between categories and developing a more organised and interconnected comprehension of the data.

2.2.3 Ideology-Free Approach

Consistent with the Constructivist Grounded Theory approach, the researchers maintained an ideology-free stance throughout the data analysis process. This approach guaranteed the maintenance of objectivity in the analysis, devoid of any predetermined ideas or prejudices associated with socially organised systems, such as capitalism, communism, or socialism, as well as considerations of centralisation or decentralisation in social systems. The study sought to increase the generalizability of its findings by adopting a perspective free from any ideology. This approach attempted to provide a holistic knowledge of internationalised higher education institutions that goes beyond the limitations imposed by certain ideological frameworks.

The decision to utilise Charmaz's Constructivist Grounded Theory methodology was a purposeful selection that aligned with the research objectives, facilitating a comprehensive examination of the viewpoints and encounters among those involved in internationalisation service delivery within higher education. The subsequent sections of this paper will explore the findings and insights obtained from this rigorous methodology, emphasising the transformative enablers identified in the context of scholar-centric internationalisation, higher education internationalisation way-power and higher education internationalisation resilience.

3. FINDINGS

To enhance their reputations and attract international faculty, staff, and students, many HEIs have adopted internationalisation as a key strategy. However, success in this area depends on prioritising the needs and expectations of faculty, staff, and scholars. Three transformative enablers have been

identified to facilitate a customer-centric approach. First, HEIs should adopt a scholar-centric approach integrating their governance framework with their internationalisation management. Secondly, virtual mobility, global campus programmes, and health and safety are included in discussing higher education internationalisation way-power. Finally, the resilience of higher education internationalisation is discussed, focusing on modernising processes, technology-enabled service delivery, and faculty and staff support. A detailed discussion of these three transformative enablers will follow.

3.1. SCHOLAR-CENTRIC HIGHER EDUCATION INTERNATIONALISATION TRANSFORMATIVE ENABLERS

The key to successful internationalisation lies in prioritising the needs and expectations of faculty, staff, and scholars. Unlike traditional approaches that treat faculty, staff and scholars as mere educational service consumers, a customer-centric higher education internationalisation strategy acknowledges faculty, staff, and scholars as active contributors to the institution's agenda. It strives to understand the unique requirements of each faculty, member of staff and scholar and provides high-quality support services to enhance their experience. By fostering a culture of continuous improvement through feedback and evaluation, it creates an inclusive, accessible, and responsive learning environment that caters to all needs of faculty, staff, and scholars, regardless of their backgrounds. Ultimately, the approach aims to create a scholar-centric internationalisation strategy and has a dual focus, namely an integrated higher education institution governance framework and an institutionalised higher education internationalisation management focus.

3.1.1 Integrated Higher Education Institution Governance Framework

Institutions of higher education are facing a multitude of challenges due to the COVID-19 pandemic. The findings emphasise the importance of a comprehensive framework to assist HEIs in managing their policy, strategy, governance, reputation, and leadership functions in a cohesive and integrated manner. The interdependence of these functions necessitates a collaborative approach to attain optimal results.

The global COVID-19 pandemic has posed numerous obstacles for HEIs worldwide. To enhance institutional and staff capacity and policies in the aftermath of the COVID-19 pandemic, leaders at HEIs must undergo a process of self-reinvention across multiple dimensions, as suggested by Buckner et al. (2022), De Castro and De Castro (2023), and Tran et al. (2023). In addition, it is imperative for HEIs to undergo transformation and adapt to new regulations to ensure their survival and achieve success (Sabzalieva, 2020).

Scholars have underscored the imperative for HEIs to give precedence to support services, particularly for students from marginalised backgrounds, using "internationalisation at home initiatives" (Ammigan, Chan & Bista, 2022). By adopting international standards and principles, HEIs can improve the overall quality of programmes (Fatima et al., 2023). However, it is also important for HEIs to consider how they will handle issues related to discrimination and hate crimes that may affect international scholars (Buckner et al., 2022; Moscaritolo et al., 2022). In addition

to creating a welcoming environment, HEI leadership should strive to provide resources and services that promote diversity, equity, and inclusion (Ammigan, Chan & Bista, 2022).

As HEIs navigate the shift towards new modes of learning, support services should be prioritised. This includes access to reliable internet and technology, promoting equity and inclusion, prioritising health, and safety, fostering students' online professionalism, providing high-quality services, facilitating remote and flexible learning, and accommodating diverse working locations and schedules (De Castro & De Castro, 2023; Nguyen, Tran & Duong, 2023; Sin, Tavares & Aguiar, 2023).

Institutions of higher education must also consider funding factors by balancing cost-cutting measures while exploring revenue generation opportunities, such as third-stream income (Nguyen, Tran & Duong, 2023). Furthermore, geopolitical tensions between countries must be borne in mind as they can significantly impact the experiences of scholars participating in HE internationalisation (Buckner et al., 2022).

Thus, HEIs must establish new policies and models for effective governance and service delivery to be well-equipped for future crises (Camilleri, 2021; Watterston & Zhao, 2023). This will require HEI leaders to ensure that all aspects of educational services are in good order (Camilleri, 2021; Nguyen, Tran & Duong, 2023). By taking proactive steps like these, HEIs can be better equipped to navigate uncertain times with resilience and agility.

Institutions of higher education must stay competitive in the global market, as countries and HEIs with fewer barriers may appeal more to international scholars (Healey, 2023; Jampaklay, Penboon & Lucktong, 2022). However, strong national policies in host countries can lead to tensions around internationalisation (Buckner et al., 2022), and financial concerns may also be a common issue for international scholars. HEIs must ensure students can assess and recognise quality courses and programmes while managing competition with other HEIs (Buckner et al., 2022; Fatima et al., 2023; Zhang & Zhu, 2022). Developing policies and models prioritising good governance, quality service delivery and effective reputation management can foster an engaging culture for students and scholars. In addition, collaborating with other HEIs on research and learning projects can strengthen institutions' standing and reputations globally (Camilleri, 2021).

3.1.2 Institutionalised Higher Education Internationalisation Management

Establishing service support structures and institutionalised internationalisation advisory working groups are essential for managing HEIs successfully. These groups and structures give HEIs the tools and knowledge they need to guarantee that their international faculty, staff, and students can access high-quality education and support services.

3.1.2.1 Service Support Structures

To improve how well HEIs serve international faculty, staff and students, high-quality service support structures are essential (Zou, 2022). Therefore, these service support structures must be given due attention and resources to ensure the success of international faculty, staff and students in higher education. Quality service support structures such as libraries, student support services,

international offices, registrar's office, health service units and admission offices are crucial in ensuring the satisfaction of international faculty, staff and students and building institutional reputation (Camilleri, 2021; De Castro & De Castro, 2023; Moscaritolo et al., 2022). To address the specific needs of international faculty, staff, and students, HEIs should prioritise providing guidance, communication, reliable information and support for mental health and welfare services (Ammigan, Chan & Bista, 2022; Amoah & Mok, 2022; Chang & Gomes, 2022; De Castro & De Castro, 2023; Fatima et al., 2023; Sin, Tavares & Aguiar, 2023; Zhang & Zhu, 2022). Virtual services such as virtual exchange programmes, online orientation sessions, and virtual social events can also enhance the scholar experience post-COVID-19 and should be considered (Camilleri, 2021; Zou, 2022).

Providing support services to more faculty, staff, and students in the competitive internationalisation market, HEIs should invest in virtual infrastructure with high-quality e-learning, delivery mode, local infrastructure and information (Fatima et al., 2023; Zhang & Zhu, 2022). According to some studies, virtual tools such as virtual fairs, virtual visits and chatbots can also help advertise institutional offers (Lee & Han, 2021; Sin, Tavares & Aguiar, 2022). Effective virtual exchange programmes require finding the right partner, managing group dynamics, and using alumni as facilitators (Sin, Tavares & Aguiar, 2022). By prioritising service support structures as an aspect of institutionalised higher education internationalisation management, HEIs can ensure the success of their international faculty, staff, and students.

3.1.2.2 The Establishment of an Institutionalised Internationalisation Advisory Working Group

As HEIs continue to globalise, they must prioritise their internationalisation agenda to stay ahead. One effective method is through the establishment of institutionalised internationalisation advisory working groups. HEIs can broaden their perspectives and foster collaboration between different entities, ensuring that internationalisation remains a priority amidst competing demands while health, safety and emergency preparedness are also considered (Goodman & Martel, 2022). International faculty, staff and student advising must be of the highest quality with innovative approaches, such as online platforms for mutual support utilised to support international faculty, staff, and students (Amoah & Mok, 2022). Engaging with colleagues and alumni is also critical to the success of internationalisation efforts in HE international offices (Goodman & Martel, 2022). In conclusion, institutionalised internationalisation advisory working groups, health and safety measures, innovative support for international faculty, staff and students, and engagement with colleagues and alumni are essential to successful internationalisation efforts in HEIs (Amoah & Mok, 2022; Goodman & Martel, 2022).

3.2 HIGHER EDUCATION INTERNATIONALISATION WAY-POWER TRANSFORMATIVE ENABLERS

Higher education internationalisation way-power is vital for HEIs to stay competitive in the dynamic global landscape. It involves attracting and retaining international students and scholars, engaging in cross-border collaborations, and establishing a global reputation for teaching, research,

and service excellence. As HEIs expand their reach beyond their borders, a strong internationalisation strategy focusing on virtual scholarly mobility, high-quality global campus programmes, and health and safety is crucial for success.

3.2.1 Virtual International Scholarly Mobility

International scholarly mobility enhances education development by promoting diversity and global perspectives, but this requires building partnerships and infrastructure (Jampaklay, Penboon & Lucktong, 2022; Tran et al., 2023). The transnational and cross-border higher education field is growing rapidly to develop online internationalised higher education, which provides flexible delivery options and facilitates the exchange of diverse perspectives and ideas (Camilleri, 2021; Healey, 2023; Sin, Tavares & Aguiar, 2022). Collaborative efforts across borders, combining international partnerships with local curriculum and virtual global engagement experiences, can expand access to international HEIs and aid in recruiting talented scholars and accessing new research grants (Atherton, 2020; Goodman & Martel, 2022; Healey, 2023; Tran et al., 2023). Flexible policies, procedures and governance structures that adapt to the evolving needs of international faculty, staff and students and unique local contexts are essential for successful collaborations. Institutions of higher education embracing this approach enhance their global reputation for excellence.

3.2.2 High-Quality Global Campus Programs

Buckner et al. (2022) advocate for HEIs to create "global campuses" through online approaches considering diversity in voices, time zones and geographical borders. To accomplish this, HEIs must design and implement flexible and reliable learning models and modalities that enhance digital research, alternative working spaces, and performance standards with technology. However, HEIs must also consider potential limitations, consistency, quality evaluation and ethical development of technology. De Castro and De Castro (2023) emphasise critical concerns such as comprehension of learning content, student engagement and internet connectivity. Furthermore, Abass, Arowolo and Igwe (2021), Camilleri (2021), Chowdhury et al. (2023) and Watterston and Zhao (2023) argue that education service delivery may shift from physical infrastructure to interactive education technology. With the COVID-19 pandemic leading to increased safety concerns, it is expected that many service delivery offerings may become contactless or hybrid post-COVID-19, transforming higher education into a technology-driven mediation. Therefore, HEIs must embrace technology as a cornerstone to ensure high-quality service delivery while also addressing external factors that may affect the implementation of these technologies.

3.2.3 Health, Well-Being, and Safety

Ensuring the health, well-being and safety of international faculty, staff and students is a crucial responsibility of HEIs. Recent studies by De Castro and De Castro (2023) and Watterston and Zhao (2023) demonstrate that developing awareness and assessment protocols can significantly safeguard individuals. Policies must provide strategic direction for managing mental health, physiological protection, and treatment. Moscaritolo et al. (2022) recommend that partnerships can be useful in

addressing mental health needs by providing access to information, counselling, and risk assessments. Social media can also safeguard health, well-being, and safety, particularly in developing countries, by disseminating information about recognising disease symptoms and transmission (Chowdhury et al., 2023).

3.3 HIGHER EDUCATION INTERNATIONALISATION RESILIENCE TRANSFORMATIVE ENABLERS

Achieving resilient higher education delivery in the face of challenges like COVID-19, technological advances and globalisation is crucial for providing students with high-quality and engaging higher education. This requires HEIs to modernise their processes with a focus on innovation, adaptability, and collaboration to meet the evolving needs of students. Modernising processes, leadership in technology-enhanced service delivery and development and support of faculty and staff are essential in a strong internationalisation strategy.

3.3.1 Modernising Processes

Recent research emphasises the significance of policymaking, management, and quality in HEIs for sustained modernisation. Specifically, Kwarteng (2021), Nguyen, Tran, and Duong (2023), Ubogu and Orighofori (2020), and Watterston and Zhao (2023) advocate for the development of new joint approaches to services, research, teaching and learning that can adapt innovatively to the constantly changing natural and social environment, thus building resilience against future crises. Even in competitive contexts, collaboration is vital for knowledge generation and desired outcomes (Tran et al., 2023). Formal partnerships are necessary for internationalisation (Buckner et al., 2022; Tran et al., 2023). Establishing broader, connected partnerships and collaborations worldwide is critical for serving globally dispersed students (Watterston & Zhao, 2023) and sharing best practices to enhance resilience. In addition, social media and educational technology platforms are also important in providing students with emotional, informational and peer support and access to presentations by leading educators (Chowdhury et al., 2023).

3.3.2 Leadership in Technology-Enabled Service Delivery

As a HEI, it is important to keep up with the latest technology-enabled teaching and learning methods to improve the quality of services provided. By offering personalised education options accessible anytime and anywhere, students can have a more engaging and effective learning experience (Accenture, 2021; Ntoyake & Ngibe, 2020; Ubogu & Orighofori, 2020). Many HEIs have already adopted hybrid options and enhanced learning accessibility and engagement, as well as shared administrative functions and support technology-enabled education (Accenture, 2021; Goodman & Martel, 2022; Taylor, 2023). Some HEIs may encounter challenges implementing new learning models during COVID-19 due to their institutional approaches, culture, structures, and curricula. This resistance could lead to poor teaching and learning experiences and incomplete online assessments of student competencies (Amoah & Mok, 2022; Sabzalieva, 2022; Zharov et al., 2022).

3.3.3 Development and Support of Faculty and Staff

Looking towards the future of higher education, it is evident that supporting a comprehensive internationalisation framework is paramount (Buckner et al., 2022; De Castro & De Castro, 2023; Smith et al., 2023; Watterston & Zhao, 2023). Providing quality service delivery, critical dimensions and addressing language barriers for international faculty, staff and students is necessary, as highlighted by Chang and Gomes (2022) and Ntoyake and Ngibe (2020). Developing new communication and teaching patterns while building intercultural competencies to accommodate diverse perspectives is crucial. This is emphasised by Buckner et al. (2022), David and Şerban-Oprescu (2022) and Jampaklay, Penboon and Lucktong (2022). Language barriers can be mitigated by using captions, as suggested by Taylor (2023). To remain competitive globally, HEIs must adopt effective marketing strategies to attract funding and international students (Camilleri, 2021, Kwarteng, 2021). In conclusion, HEIs must support faculty and staff development, address language barriers and adopt effective marketing strategies to enhance online teaching and compete globally.

4. DISCUSSION OF FINDINGS AND RECOMMENDATIONS

After analysing the data, the researchers developed a conceptual model (see Figure 1) for higher education internationalisation that can assist HEIs to prepare for crises. This model offers HEIs a feasible plan to improve their reputation and credibility while navigating the international landscape. The model is explained in detail below.

According to the model, customer-centric internationalisation is a critical factor in institutional internationalisation. This means that HEIs must prioritise the needs of faculty, staff, and students in all their internationalisation efforts. HEIs should focus on faculty, staff and student support, diversity, equity, inclusion and adopt international standards. HEIs must also institutionalise new policies sustainable in the post-COVID-19 period. To achieve customer-centric internationalisation, HEIs should establish service support structures and institutionalised internationalisation advisory working groups. These groups should prioritise stakeholder needs and consider the global landscape. Virtual infrastructure and innovative approaches are essential in this regard. Institutionalised advisory groups can enhance the HEIs' internationalisation agenda by broadening perspectives, fostering collaboration, and prioritising internationalisation amidst competing demands.

To succeed in today's globalised world, HEIs need way-power to navigate internationalisation, build partnerships and adopt policies. Combining global partnerships with local curriculum and virtual engagement is crucial for success. Flexibility is key to meet evolving needs and embrace online trends. Prioritising policies for mental and physical well-being, risk assessments and partnerships with the public and private sectors are crucial. Educational technology, such as AI and knowledge management systems, facilitates knowledge exchange and distribution, ensuring high-quality service delivery and stakeholder satisfaction.

Delivering outstanding higher education that inspires and is resilient necessitates innovation, adaptability, and collaboration. HEIs must update their policies, management and quality processes

while building global partnerships. Educational technology and social media provide students with emotional, informational and peer support. HEIs can improve their reputation and credibility by being resilient, adaptable, and dedicated to continuous improvement. By collaborating, coordinating, managing risks, and prioritising stakeholder needs, HEIs can demonstrate their unwavering commitment to sustainability and cultural integration.

To achieve sustainable internationalisation, HEIs must prioritise long-term planning, sustainability and cultural integration while being responsive to crises and changing circumstances. Neglecting these factors can make HEIs reactive while prioritising them showcases forward-thinking and proactive leadership. HEIs must also exhibit resilience and agility, adapting to changing circumstances while maintaining their reputation and credibility. To handle crises and recover with their reputation intact, HEIs will need to commit to continuous improvement.

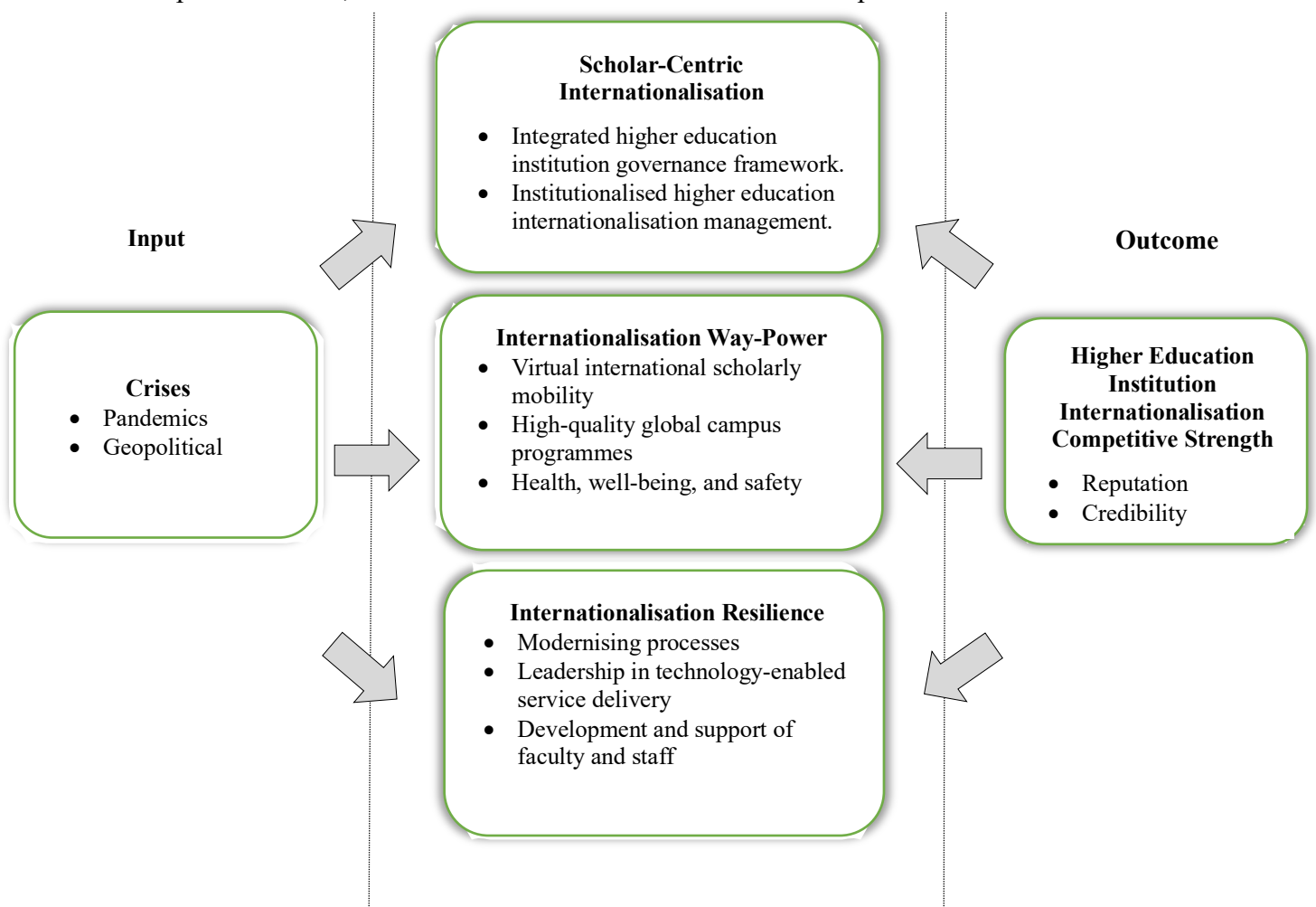


Figure 1. A conceptual crisis-ready higher education internationalisation model.

Maintaining a strong reputation and credibility, requires determination and adaptability by HEIs in the face of adversity. Prioritising stakeholder needs is key to building trust among faculty, staff, students, and other stakeholders. HEIs should also demonstrate a commitment to sustainability, cultural integration, and the resilience and perseverance necessary to thrive in an ever-changing world. Neglecting these factors can result in HEIs experiencing lasting damage to their reputation.

Therefore, HEIS must prioritise collaboration, exchange expertise, and implement risk management strategies to bolster its global reputation and cultivate trust.

Upholding a robust reputation and establishing trust can be achieved by giving precedence to stakeholders' requirements while simultaneously implementing service support structures and formalised advisory working groups. This will ensure that the requirements of all stakeholders are adequately addressed and that HEIs can effectively provide essential support to individuals in need. HEIs can also consider implementing virtual infrastructure and new strategies to strengthen their internationalisation efforts. Doing so may offer a more inclusive educational experience to a broader range of individuals.

To successfully address global challenges, HEIS must prioritise the establishment of partnerships, engage in cross-border cooperation, and integrate local and international efforts. This will enhance the development of adaptability to efficiently respond to dynamic situations and provide optimal support to the academic community, encompassing instructors, staff, and students.

HEIs should also prioritise the establishment and execution of policies aimed at promoting mental and physical well-being. HEIs must conduct comprehensive risk assessments and cultivate partnerships between the public and commercial sectors to address issues related to mental health effectively. This measure will guarantee that faculty, staff, and students can obtain the essential assistance and resources required to maintain their overall well-being. In addition, HEIS must employ and incorporate technology to optimise the provision of exceptional services. This would facilitate HEIs in providing customised educational programmes and comprehensive student assistance.

HEIs should modernise policies and establish partnerships globally to remain competitive in the global market. They should also lead in tech-enabled service delivery and offer advanced learning technologies for tailored higher education. This will help them stay ahead of the curve and provide scholars with the best possible educational experience.

HEIs should prioritise sustainability, cultural integration, and resilience to build a global reputation and stakeholder trust through long-term planning and continuous improvement. This will ensure they can provide a high-quality education while remaining environmentally and socially responsible.

5. LIMITATIONS OF THE RESEARCH

It is important to recognise the study's limitations even if it provided insightful information on a crisis-prepared model for internationalisation service delivery in higher education. Because of the qualitative design's small sample size and emphasis on COVID-19 documents, the entire scope of the phenomena under investigation was not adequately captured. It may not be generalisable to other crises. Additionally, the study's use of constructivist-grounded theory and exclusion of stakeholder perspectives may have influenced the results. The study's emphasis on English-language literature and its ideology-free approach will make it inapplicable in non-English settings and may not adequately account for political and cultural contexts.

6. CONCLUSION

Institutions of higher education are essential to international collaboration. The pandemic and geopolitical tensions, however, have severely affected HEIs, underscoring the critical need for innovative and sustainable internationalisation models that regard institutional resilience, quality, and student support as a top priority.

A crisis-ready internationalisation service delivery model that emphasises resilience, student support, diversity, equity, inclusion, international standards, and institutional policies were developed to address this challenge. Even though this represents a substantial advancement, it is crucial to recognise the study's limits and consider a variety of crises, stakeholder perspectives and cultural contexts when creating inclusive and comprehensive models.

To effectively traverse the post-COVID-19 period, HEIs must prioritise mental and physical well-being, modernise policies and management, focus on long-term planning, sustainability, cultural integration, and exhibit resilience.

7. ACKNOWLEDGEMENT

The authors express their sincere gratitude to Hebei University of Technology and Tshwane University of Technology for their generous support and financial contribution, which made this research possible. They also appreciate the partial funding from the Higher Education Reform Fund of Hebei Province, People's Republic of China (No. 2017GJJG022), the South African Department of Higher Education and Training, and the Faculty of Management Sciences at Tshwane University of Technology.

8. DECLARATION

Regarding the research, authorship and publication of this manuscript, the authors declare that they have no potential conflict of interest. This manuscript had not previously been submitted for publication, and it had been proofread before submission.

REFERENCES

- Abass, O., Arowolo, O. A., and Igwe, E. N. (2020). Towards enhancing service delivery in higher education institutions via knowledge management technologies and blended e-learning. *International Journal on Studies in Education*, 3(1), 10–21. <https://doi.org/10.46328/ijonse.25>
- Accenture. (2021). *Post-pandemic higher education: Ushering in innovation. An interview series*. Retrieved from <https://www.accenture.com/us-en/blogs/voices-public-service/higher-education-in-public-service-with-accenture-avanade-and-microsoft>
- Ammigan, R., Chan, R. Y., and Bista, K. (2022). The impact of COVID-19 on higher education: Challenges and issues. In R. Ammigan, R.Y. Chan and K. Bista (Eds.), *COVID 19 and higher education in the global context: Exploring contemporary issues and challenges*. Maryland: STAR Scholar Press, pp.1-8.

- Amoah, P. A., and Mok, E. W. C. (2022). COVID-19 and well-being of non-local students: Implications for international higher education governance. *Higher Education Policy*, 35(3), 651–672. <https://doi.org/10.1057/s41307-022-00270-4>
- Atherton, A. (2020). *Perspectives on the challenges to access and equity in higher education across the world in the context of COVID*. London: National Education Opportunities Network. Retrieved from <https://worldaccesshe.com/wp-content/uploads/2021/09/SBT2369-National-Education-Opportunities-Network-NEON-Report-Design-v3-Single-Page.pdf>
- Buckner, E., Denenberg, J., Gelashvili, M., Kontelli, M., Marroquin Rodriguez, A., Wang, L., and Zhang, Y. (2022). The internationalization of higher education in the wake of COVID-19: A rigorous review of the literature on short-term impacts. *CIHE Perspectives*, 20:1-58.
- Camilleri, M. A. (2021). Evaluating service quality and performance of higher education institutions: A systematic review and a post-COVID-19 outlook. *International Journal of Quality and Service Sciences*, 13(2), 268–281. <https://doi.org/10.1108/ijqss-03-2020-0034>
- Chang, S., and Gomes, C. (2022). Why the digitalization of international education matters. *Journal of Studies in International Education*, 26(2), 119–127. <https://doi.org/10.1177/10283153221095163>
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage Publications.
- Chowdhury, S., Rahman, M., Doddanavar, I. A., Zayed, N. M., Nitsenko, V., Melnykovich, O., and Holik, O. (2023). Impact of social media on knowledge of the COVID-19 pandemic on Bangladeshi university students. *Computation (Basel)*, 11(2), 38. <https://doi.org/10.3390/computation11020038>
- Corbin, J., and Strauss, A. (1990). *Grounded theory research: Procedures, canons, and evaluative criteria*. *Qualitative Sociology*, 13(1), 3-21.
- David, I., and Șerban-Oprescu, A. (2022). The impact of the COVID-19 pandemic on academic communication. *Synergy*, 18(1), 16-26. <https://doi.org/10.24818/syn/2022/18/1.02>
- De Castro, E. G., and De Castro, C. A. (2023). Initiatives of a state university in sustaining public services in the new normal. *Humanities, Arts and Social Sciences Studies*, 23(1), 80-93.
- Fatima, T., Li, B., Malik, S. A., and Zhang, D. (2023). Mapping the relationship between virtual supervision, online program quality, and international student satisfaction in COVID-19 pandemic world: Does e-learning quality mediates the relationship. *Interactive Learning Environments*, 1–17. <https://doi.org/10.1080/10494820.2023.2177677>
- Glaser, B. G., and Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine Publishing Company.
- Goodman, A., and Martel, M. (2022). *A brief history of senior international officers on U.S. higher education campuses*. New York: Institute of International Education. Retrieved from https://www.iie.org/wp-content/uploads/2023/02/A-Brief-History-of-Senior-International-Officers_PDF.pdf.
- Healey, N. (2021). Transnational education: The importance of aligning stakeholders' motivations with the form of cross-border educational service delivery. *Higher Education Quarterly*, 77(1), 83–101. <https://doi.org/10.1111/hequ.12371>

-
- Jampaklay, A., Penboon, B., and Lucktong, A. (2022). Internationalization of higher education in Thailand: Promises and reality. *Kasetsart Journal of Social Sciences*, 43(1), 183-193. <https://doi.org/10.34044/j.kjss.2022.43.1.25>
- Kwarteng, A. J. (2021). An assessment of outcome criteria associated with the implementation of TQM in a higher education institution in Ghana. *Cogent Education*, 8(1). <https://doi.org/10.1080/2331186x.2020.1859198>
- Lee, J., and Han, S. H. (2021). Preparing for accelerated third order impacts of digital technology in past pandemic service industry: Steep transformation and metamorphosis. In J. Lee & S.A. Han, S.A. (Eds.), *The future of service post-COVID-19 pandemic: Rapid adoption of digital service technology*. Volume 1. Singapore: Springer, pp. 1-8. <https://doi.org/10.1007/978-981-33-4126-5>
- Moscaritolo, L. B., Perozzi, B., Schreiber, B., and Luescher, T. M. (2021). Impact of COVID-19 on International Student Support. *Journal of International Students*, 12(2). <https://doi.org/10.32674/jis.v12i2.3625>
- Ndaipa, C. J., Edelström, K., and Geschwind, L. (2022). National policy for internationalisation in higher education: The case of Mozambique. *Nordic Journal of Comparative and International Education*, 6(1):1-17. <https://doi.org/10.7577/njcic.4763>
- Nguyen, A., Tran, L. T., and Duong, B. (2023). Higher education policy and management in the post-pandemic era. *Policy Futures in Education*, 21(4), 330–334. <https://doi.org/10.1177/14782103231158171>
- Ntoyakhe, M. W., and Ngibe, M. (2020). Developing innovative support structures in higher education institutions: A student perspective. *Journal of Educational Research and Practice*, 10(1). <https://doi.org/10.5590/jerap.2020.10.1.07>
- Sabzalieva, E. (2022). Surviving a crisis: Transformation, adaptation, and resistance in higher education. *Higher Education Governance and Policy*, 3(1), 1–15. <https://doi.org/10.55993/hegp.1054946>
- Sin, C., Tavares, O., and Aguiar, J. (2022). COVID-19: Threat or opportunity for the Portuguese higher education's attractiveness for international students? *Journal of Studies in International Education*, 27(1), 21–38. <https://doi.org/10.1177/10283153221121396>
- Smith, C., Selkrig, M., Dulfer, N., Harrison, M., Cochrane, T., McKerman, A., Pollard, V., and Rasche, J. (2023). Traversing learning and leading collaboration: Stepping towards new power values during turbulent and in-between times. In K. Coleman, D. Uzhegova, B. Blaher & S. Arkoulis (Eds.). *The educational turn: Rethinking the scholarship of teaching and learning in higher education*. New York: Springer, pp. 59-72.
- Taylor, K. J. (2023). A hidden benefit in the COVID-19 pandemic: Rethinking physical geography pedagogy in higher education using a flipped classroom approach. *Irish Journal of Technology Enhanced Learning*, 7(1). <https://doi.org/10.22554/ijetel.v7i1.105>
- Tran, L. T., Nguyen, D. T. B., Blackmore, J., He, B., and Vu, H. Q. (2023). COVID-19, geopolitics, and risk management: Towards framing a reciprocal, coordinated, responsive and empathetic international education sector. *Policy Futures in Education*, 21(4), 423–444. <https://doi.org/10.1177/14782103231163480>
-

- Ubogu, R., and Orighofori, M. V. (2020). Information and communication technology: A strategic tool in the internationalization of higher education. *International Journal of Education and Practice*, 8(3), 586–598. <https://doi.org/10.18488/journal.61.2020.83.586.598>
- Watterston, J., and Zhao, Y. (2023). Global distribution of students in higher education. In K. Coleman, D. Uzhegova, B. Blaher & S. Arkoulis (Eds.). *The educational turn: Rethinking the scholarship of teaching and learning in higher education*. New York: Springer, pp. 129-145.
- Zhang, Y., and Zhu, Y. (2022). Responses to the COVID-19 pandemic in Chinese higher education. *Journal of International Students*, 12(S1), 118–124. <https://doi.org/10.32674/jis.v12is1.4612>
- Zharov, A. N., Beloglazova, L. B., Bondarenko, N. G., and Brega, G. V. (2022). Impact of the pandemic on the learning process of foreign students studying in Russia and prospects for educational migration. *European Journal of Contemporary Education*, 11(2). <https://doi.org/10.13187/ejced.2022.2.582>
- Zuo, K. (2022). Understanding motivation, career planning, and socio-cultural adaptation difficulties as determinants of higher education institution choice decision by international students in the post-pandemic era. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.955234>

SSIRC 2023-047

FACTORS AFFECTING THE PERCEIVED EFFECTIVENESS OF POLICE PERFORMANCE AT A SELECTED POLICE STATION IN THE FREE-STATE

M.S. Mpjatona

STADIO Higher Education, South Africa

C.M. Schultz

Tshwane University of Technology, South Africa

H. de Jager

STADIO Higher Education, South Africa

ABSTRACT

Organisations with appropriate procedures, systems, policies, resources, and leadership supporting the well-being of their employees tend to achieve better results, creating more sustainable organisations. This is also very true for the South African Police Service (SAPS), which must fulfil its constitutional mandate as per Section 205 of the South African Constitution. These include preventing, combating, and investigating crime; maintaining public order; protecting the people of the Republic; and upholding and enforcing the law. It is, therefore, reasonable to argue that perceived police performance is how the public views the effectiveness, support, trustworthiness, honesty and conduct of the Police Service. These critical measurements result from the police fulfilling its constitutional mandate with a framework of good governance and respect for the law. This study aimed to explore the factors affecting the perceived effectiveness of police performance at a selected police station in the Free State province. The station has recently faced challenges in service delivery, and different policing strategies have been applied to improve the overall performance with various outcomes. The researchers used a qualitative approach within an explorative research paradigm by conducting semi-structured interviews with leaders in senior managerial positions. The following are some key issues identified that affect the perceived effectiveness of police performance: a lack of resources, including proper accommodation for staff; a large area that must be policed; a lack of command and control; and poor management. The management must regard effective police performance as one of its key constitutional priorities. Management should commit to ensuring that station orders, national instructions, policies, plans, and guidelines are in place and implemented to deliver exceptional service to the community.

KEYWORDS: Effectiveness, Police performance, Police

1. INTRODUCTION

Policing is one of the many fields of work critical to a nation's economic growth and development. Police officials have a powerful role in keeping order, maintaining public security and safety, and safeguarding the common property of all citizens (Tengpongsthorn, 2016). To perform this task

optimally, it is suggested that police management and leadership must ensure that all factors affecting its performance are addressed to ensure equilibrium is achieved between, for example, tangible performance indicators such as crime stats and the perceived effectiveness of the police service. Ahmad, Zirwatu and Bakar (2018) postulate that factors such as blurring roles, insufficient work-related knowledge, over-burdening work demands, workloads, and an insecure work environment could be factors affecting overall performance.

According to Tengpongsthorn (2016), the inequality of human resources and workload is a further obstacle to the effectiveness of police performance. Khuerlamai (2015), as cited in Tengpongsthorn (2016), points out that budgetary constraints are often cited as a major contributor to the lack of effective and modern work tools and equipment—the public demands effective service delivery performed by competent and disciplined police officers. As indicated by the numerous reform efforts throughout the years, police effectiveness has been a concern at all levels of government (Headley, 2018:15).

2. LITERATURE REVIEW

According to Pintea *et al.* (2020), as cited in Efendi, Ansar, and Fattah (2020), the concept of performance is a reference both in theoretical approaches and in practice, since field performance includes various terms of which the most important are competitiveness, productivity, profitability, and business growth. Ahmad *et al.* (2018) further state that performance is the quality and quantity of work that results from individual or group accomplishment efforts.

Herández-Valdés, Bermúdez-Ruiz, and García-Lirios (2021) postulate that the perception of police performance, whether testimonial or mediatic, will decrease or increase the impact of security policies on civilian trust in authorities. It is, therefore, safe to argue that the level of expertise and integrity displayed by members providing basic policing operations from SAPS front offices or police stations will primarily decide the public's response to the SAPS' level of service delivery. This can include the perceived conduct, honesty, support, and trustworthiness of the police.

2.1. Factors affecting the effectiveness of police performance.

Tengpongsthorn (2017) argues that working conditions and resources are a challenge most police stations face daily, especially concerning the scarcity of modern equipment and work tools as an obstacle in all police divisions. Furthermore, Shieber (2019) postulates that the most critical problem for the organisation today is addressing the expanding and changing nature of demand while working within tighter resource restrictions. However, Kapuria and Maguire (2022) also argue that financial constraints may seriously hinder police officers' capacity to respond effectively to crimes.

Further to resource constraints, Ingsih and Astuti (2019) argue that the working environment, fairness, promotion, and salary influence employee satisfaction in large corporations. For this reason, the South African Police Service Strategic Plan (2020-2022) argues that SAPS members

will only “value their work” if they, in turn, perceive and experience the value placed on them by the organisation.

Personnel cannot perform a professional and ethical police service to the highest standards without the assistance they need to cope effectively with the severe demands posed by the changing policing environment (Shieber, 2019). Shieber (2019) further believes that many police forces still have the potential to develop in aligning resources, skills, and planning to accommodate the shift in demand patterns for service delivery.

Ahmad *et al.* (2018) argues that job blurring, a lack of work-related knowledge, work expectations and workloads, and an insecure work environment also contribute to poor organisational performance. Ahmad *et al.* (2018) also highlights that policing is stressful, and officers' inability to deal with high-pressure situations impacts their work performance. In addition to work stress, social support is important because it encompasses a large landscape where workplace support can influence behaviour, thoughts, and feelings in carrying out duties.

2.2. The future of police performance

The nature of policing demand is evolving and becoming more complex owing to increasing major criminal activity, such as murder, robbery, rape, gender-based violence, and assault (Shieber, 2019). Although police agencies are not entirely to blame for the lack of effective service delivery, they are constructed so that policies may be modified more easily than bigger socioeconomic or cultural issues (Headley, 2018). In this regard, Kapuria and Maguire (2022) also stress the significance of having appropriately connected and coordinated systems for recruiting, hiring, training, and performance management.

Organisations with policies realise a great return on their investment and achieve quick, successful, and long-term growth to support and increase their staff's work effectiveness (Tengpongsthorn, 2016). However, Kapuria and Maguire (2022) suggest that, to ensure that employees can meet the many strategic challenges they confront, the organisation should have a supportive internal climate that values and encourages constant learning. As a result, employees become more excited due to social support, which inspires and drives them to work (Ahmad *et al.*, 2018).

Furthermore, remuneration, advancement, job stability and security, workplace conditions, liberty in the workplace, and connections with co-workers and supervisors are all elements that favourably impact workers' performance (Ingsih & Astuti, 2019). Ahmad *et al.* (2018) believes that workers with solid emotional intelligence can execute a decent job without establishing a fortress among them, a skill needed by most police officers.

The complexity of policing requires police officers to continually enhance their competency and level of discipline and the leadership to support police performance (Efendi *et al.*, 2020). Efendi *et al.* (2020) argue that leadership, competency, and work discipline are examples of factors that can be used to improve the performance of employees or authorities. However, Headley (2018) suggests that human resources, sufficient or more personal power and training interventions must be

prioritised by police departments within the police stations since frontline services are the mirror of the SAPS.

3. METHODOLOGY

3.1 Research design

The study design in this research is exploratory by nature and based on qualitative data analysis within interpretivism. The exploratory research design is ideal for situations where little is known about the research phenomenon, area of interest, research environment or population under study (Creswell, 2014). Therefore, an explorative research design was deemed appropriate, given that there has been little research on factors affecting the perceived effectiveness of police performance at the selected police station.

A qualitative research approach was employed, and open-ended interview questions that can address the research questions were utilised to collect data. Maree (Ed.) (2020) define qualitative research as a method of describing and understanding a phenomenon in context to interpret the meanings revealed by the participants.

3.2 Sampling method

A purposive or judgemental sampling technique was implemented as the study requires participants in managerial positions and involved in the strategic functions of the station. According to Theys and Schultz (2020), the purposive or judgemental sampling technique is based entirely on the researcher's judgement. Crouch and McKenzie (2006) claim that by utilising a limited sample with less than twenty (20) participants, the researcher can examine the individuals' experiences as cases rather than samples, gaining new insight.

Fifteen (15) members from the station were purposefully chosen. The inclusion criteria for choosing these participants were senior management officials working at the selected police station for more than five (5) years since they have a deeper understanding and experience of elements influencing public perceptions of police performance. Two senior and thirteen middle manager commanders from the detective and uniform branches were purposefully selected for this study. Saturation was established early in the study as similar responses, and themes emerged from the data.

3.3 Research instrument

A semi-structured interview schedule with open-ended questions was utilised.

3.4 Data collection

Semi-structured interviews were used to collect information from the selected participants. According to Erasmus, Loedolff, Mda and Nel (2010), semi-structured interviews gave the researchers more control over data collection and probed participants to clarify their initial responses. Interviews are used most frequently in qualitative data collection to obtain participants' input on a subject matter (Friedemann, Mayorga & Jimenez, 2011). According to De Vos, Strydom, Fouche and Delpont (2021) and Bryman and Bell (2017), individual interviews are a qualitative assessment method that encourages a free flow of ideas.

3.5 Data analysis

The researchers analysed the participants' responses using thematic analysis to code the data and identify themes. According to Bengtsson (2016), thematic analysis is a technique for putting data into words and making it easier to understand the results. The themes were created to address the research questions, which sought to explore the factors affecting the perceived effectiveness of police performance at the selected police station.

3.6 Trustworthiness

Lincoln, as cited in De Vos *et al.* (2021), proposes that trustworthiness is a component of four (4) constructs, namely credibility, transferability, dependability, and conformability, in order to reflect the trustworthiness in qualitative research:

- **Credibility:** Purposive sampling was employed in this study, where managers with the highest qualifications and the most years of experience were included. This was done to obtain data that is credible.
- **Conformability:** To verify the research findings' conformability, impartiality, and reliability, the researcher used a member-checking approach to determine the goals, analyses, understandings, views, and assumptions shared by every participant. The study's conclusions were based on participants' responses, with no prejudice or personal interest on the researcher's side. The responses were analysed and kept for future reference.
- **Transferability:** The researchers ensured transferability by coding participants' identities, displaying demographic information, and complementing themes for data display with summaries of straight quotations from participants. The researcher provided descriptions to make it easy for others who want to apply the findings in different situations or contexts.
- **Dependability:** The researchers ensured that the entire research process was reasonable, and that the data were well-documented and audited. During data collection, no alterations were recorded or discovered that would have an impact on the findings.

3.7 Ethical considerations

The anonymity of the participants was ensured by giving participant numbers and not using their names. A permission letter was obtained from the South African Police Service National Research Office, and ethical clearance was obtained from the university where the study was conducted.

4. RESULTS AND DISCUSSION

The researchers identified three main themes and fifteen sub-themes from the combined responses of the participants, as presented below.

Theme 1: Constraining factors affecting the perceived effectiveness of police performance.

| Sub-Themes | Verbatim responses |
|-------------------|--|
| Lack of resources | <ul style="list-style-type: none"> • “Shortage of vehicles at the police station is one of the factors that affect the effectiveness of police performance.” (Participant 10) |

| Sub-Themes | Verbatim responses |
|-----------------------------|---|
| | <ul style="list-style-type: none"> • “Another factor is the issue of state vehicles; when/if the vehicles are broken down, they must be taken in for repairs, and this often takes a long period of time.” (Participant 1) • “The population grows at an alarming rate, but the police station is stagnant or static; it is not growing or developing, and resources continue to be limited.” (Participant 3) • “Lack of resources also contribute to low performance of the station.” (Participant 5) • “Shortage of members and lack of resources affect the station negatively.” (Participant 8) |
| Large vicinity | <ul style="list-style-type: none"> • “Policing area is very large with sixty-eight (68) villages and fifteen (15) cattle posts, travelling a distance to attend complaints.” (Participant 2) • “The station is serving a large area in the district (more than 60 villages), that is highly populated.” (Participant 3) • “The station is serving so many villages with a huge area.” (Participant 9) • “Most of the complaints are attended late because of the scattered villages we are serving.” (Participant 10) |
| Accommodation | <ul style="list-style-type: none"> • “Members are working in an old and small building which limits their flexibility during their duties, for example, not enough space to cater for more than ten (10) community members at a time and less privacy.” (Participant 3) • “The workplace, like the building itself, is not a good working environment.” (Participant 7) • “The building (police station) is very small to accommodate enough number of communities who are coming to the station.” (Participant 10) |
| Poor management | <ul style="list-style-type: none"> • “Management style, the way in which they manage members, not treated equally.” (Participant 7) • “According to what I am thinking personally so, is because of poor management.” (Participant 4) |
| Lack of command and control | <ul style="list-style-type: none"> • “This results in members not cooperating and adhering to the commander’s instructions.” (Participant 1) |

| Sub-Themes | Verbatim responses |
|--------------------|---|
| | <ul style="list-style-type: none"> • “Some members are not taking instructions from senior members.” (Participant 7) • “The lack of command and control also affects the station since some members do as they wish.” (Participant 12) |
| Unity | <ul style="list-style-type: none"> • “There is no unity or union amongst our fellow colleagues; there is a consistent conflict that is always completely unsolved, and this results in members not cooperating and adhering to the commander’s instructions.” (Participant 1) • “There is no unity at the station” (Participant 12) |
| Lack of commitment | <ul style="list-style-type: none"> • “Lack of commitment.” (Participant 13) • “Lack of commitment.” (Participant 14) |

According to the participants, the lack of resources affected the station negatively to such an extent that members became unproductive. This view is supported by Tengpongsthorn (2016), who states that police in almost all divisions felt strongly that enough equipment and work tools are the factors to facilitate more effective work performance.

The participants also pointed to poor management as one of the constraining factors affecting the perceived effectiveness of police performance. This view is shared by Tengpongsthorn (2016), who suggests that police should look for measures to select commanders with more effective work performance and a higher interest in their work than the existing commanders.

The participants also mentioned a lack of command and control, which results in members not cooperating and adhering to the commander’s instructions. Nakato, Mazibuko and James (2020) support this view, stating that communicating shared vision, goals, and performance expectations reduces frustrations among employees and contributes to employees recognising the organisation as an employer of choice.

Theme 2: Contributing factors affecting the perceived effectiveness of police performance.

| Sub-Themes | Verbatim responses |
|------------|--|
| Sick leave | <ul style="list-style-type: none"> • “Unmanaged sick leave and shortage of personnel also affect the effectiveness of police performance at the police station.” (Participant 5) • “Regular sick leave by most members shows that there is a serious concern.” (Participant 12) • “Booking off sick is routine, and as a result, it demoralises others who are positive.” (Participant 6) |

| Sub-Themes | Verbatim responses |
|----------------|---|
| Support | <ul style="list-style-type: none"> • " The station management does not give more support to members in terms of their needs." (Participant 7) |
| Commitment | <ul style="list-style-type: none"> • "Commitment." (Participants 8,13 and 14) |
| Cost-effective | <ul style="list-style-type: none"> • "Cost efficiency - members must take care of their resources." (Participant 14) • "Members must take care of resources" (Participant 13) |

The participants mentioned members' commitment as one of the contributing factors affecting police performance at the station. Nakato *et al.* (2020) support the above statement by agreeing that employees are committed to providing quality service and are committed to an organisation if that organisation shows commitment to its employees.

The participants also mentioned that to perform their duties, they need support from the management. SAPS strategic plan (2020-2025) also agreed that the SAPS members would only "value their work" if they, in turn, perceive and experience the value placed on them by the organisation. Cost-effectiveness was also mentioned as one of the contributing factors to effective police performance. According to Vuma (2016), effectiveness means task performance. Effective organisations are those that meet the challenges put to them, satisfy demands for service, or solve problems and furthermore, for people to be safe and secure, police effectiveness and its measurements thereof should be able to relate to the expectation of the community on safety and security.

Theme 3: What the future of the effectiveness of police performance entail

| Sub-Themes | Verbatim responses |
|----------------------------|--|
| Conducting proper training | <ul style="list-style-type: none"> • "The service should equip members with the right training." (Participant 1) • "More well-trained police officials are needed to be employed." (Participant 8) • "In-service training of the members." (Participant 14) • "Time and again the police must be workshopped so that they can have more knowledge to their work so that in future the reputation of the police station must not fall down." (Participant 13) |
| Community engagement | <ul style="list-style-type: none"> • "Positive relationship between the community and police officials." (Participant 8) • "More engagement with the community at large and trust amongst them." (Participant 2) • "The current situation must be addressed according to the needs of the community." (Participant 10) |

| Sub-Themes | Verbatim responses |
|------------|---|
| | <ul style="list-style-type: none"> • “The community will suffer and lose trust in the police.” (Participant 3) |
| Motivation | <ul style="list-style-type: none"> • "There must be overtime operations regularly." (Participant 5) • “Members must be promoted so that the morale can be uplifted.” (Participant 4) • “If members can be promoted, not just act on vacant posts without even compensation.” (Participant 6) |
| Station | <ul style="list-style-type: none"> • “The new station must be built.” (Participant 13) • “Renovation of the station.” (Participant 14) |

The participants recommended training interventions to boost the members' knowledge. The view is supported by Nakato *et al.* (2020), who state that continuous learning and development are synonymous with employee satisfaction and attracting and retaining talented workers. Furthermore, Erasmus *et al.* (2010) argue that employees must be subjected to training or skills development interventions to maintain organisational consistency.

Community engagement is also mentioned as one of the factors that can help in the effectiveness of police performance. Newham and Rappert (2018) also agree that well-articulated policy-community partnerships with clearly defined and achievable goals, adequate resourcing and consistent personnel with good communication support are more likely to succeed. Zinn (2017) also shares the same sentiments that the key to solving the problem from a policing perspective is to use community policing to enable the police to build relationships with the community. A relationship of trust could serve as a vehicle for sharing information and active collaboration with the police, even in the face of threats by violent criminals.

The participants also recommended motivation by utilising overtime duties with remuneration. This view is supported by Nakato *et al.* (2020), who contend that all monetary and non-monetary compensation and incentives provided by the organisation to its employees play an important role in attracting and retaining talented employees and contribute to attaining organisational goals.

5. MANAGEMENT IMPLICATIONS AND RECOMMENDATIONS

The lack of resources affects the station negatively, indicating the perception of ineffective policing. Based on the responses, various participants suggested that it was evident that command and control were lacking, influencing the perception of the effectiveness of the police station. The data show that much needs to be done regarding resources, whereby members need to be cost-effective by taking care of the little they have. The management should consider drafting station orders that need to be implemented to ensure command and control as well as the commitment of members.

It is also evident that there is a serious challenge of accommodation whereby the station building is very old and small to allow flexibility when performing duties, which affects service delivery.

Furthermore, factors such as upgrading the station building with proper resources are not considered. In that case, crime investigation and crime prevention might be affected negatively.

Another issue that requires urgent intervention is the shortage of members, whereby a limited number of members serves a large vicinity. This results in poor reaction time. This view is supported by Zinn (2017), who states that the recruitment of more officers, the offering of real empowerment within the police organisation at the precinct level, and the targeting of unacceptable public behaviour will upgrade police performance.

Lastly, management should consider all the factors affecting service delivery at the station and address them systematically and pragmatically. For example, failure to address the shortage of personnel, which is affecting members negatively is a well-documented reason for high levels of stress, and this might result in poor service delivery with the possibility that the community might perceive police as negative and non-supported.

6. CONCLUSION

The findings gathered from the participants clearly indicate that more factors affect service delivery at the selected police station. This is attributed to various factors, such as a lack of resources, command and control, and commitment from the members. Therefore, the management should formulate station orders and guidelines (going back to basics) to enhance service delivery.

REFERENCES

- Ahmad, A., Zirwatul, R. & Bakar, A.A. 2018. Factors influencing job performance among police personnel: An empirical study in Selangor. *Management Science Letters*, 8:939-950. <https://doi.org/10.5267/j.msl.2018.6.014> [Accessed: 23 June 2018].
- Bengtsson, M. 2016. How to plan and perform a qualitative study using content analysis. *Nursing Plus Open*, 2:8-14. <https://doi.org/10.1016/j.npls.2016.01.001>
- Bryman, A. & Bell, E. 2017. *Business research methods*. Oxford: Oxford University Press.
- Creswell, J.W. 2014. *Research design: qualitative, quantitative, and mixed methods approach*. 4th ed. Los Angeles: SAGE.
- Crouch, M. & McKenzie, H. 2006. The logic of small samples in interview-based qualitative research. *Social Science Information*, 45(4):483-499.
- De Vos, A.S. (ed.), Strydom, H., Fouché, C.B. & Delport, C.S.L. 2021. *Research at grassroots: for the social sciences and human service professions*, 5th ed. Pretoria: Van Schaik.
- Erasmus, B.J., Loedolff, P.V.Z. (eds.), Mda, T.V. & Nel, P.S. 2010. *Managing training and development in South Africa*. Cape Town: Oxford University Press.
- Efendi, A., Ansar, A. & Fattah, N. 2020. The effect of leadership, competence, and discipline on police performance in the Soppeng Polres Police. *Economics and Digital Business Review*, 1(1):1-10. <http://doi.org/10.37531/ecotal.v1i1.1> [Accessed: 15 January 2020].
- Friedemann, M., Mayorga, C. & Jimenez, L. 2011. Data collectors' field journals as tools for research. *Journal of Research in Nursing*, (16):5.

-
- Headley, A.M. 2018. Understanding the organisational factors that impact police-community relations. Florida International University. doi: 10.12140/RG.2.2.31594.95686
- Herández-Valdés, J., Bermúdez-Ruíz, G. & García-Lirios, C. 2021. Perception of police performance in streets around biosecurity. *Public Security and Public Order*, 27:39-50. [https://doi: 10.13165/PSPO-21-26-07](https://doi.org/10.13165/PSPO-21-26-07)
- Ingsih, K. & Astuti, S.D. 2019. Determinant factors of police performance. *International Journal of Innovation, Creativity and Change*, 9(2):262-273.
- Kapuria, M. & Maguire, E. R. 2022. Performance management and the police response to Women in India. *Journal of Social Science*, 11(58):1-17. <https://doi.org/10.3390/socsci11020058>
- Maree, K. (ed.) 2020. *First steps in Research*, 3rd ed. Van Schaik. Johannesburg.
- Nakato, J., Mazibuko, N.E. & James, S. 2020. Antecedents influencing effective talent management in public health institutions in Uganda. *Journal of Contemporary Management*, 17(2):601–631.
- National Development Plan. 2011. Vision for 2030. National Planning Commission. Pretoria: The Presidency.
- Newham, G. & Rappert, B. 2018. Policing for impact. Is South Africa ready for evidence-based policing? *SA Crime Quarterly*, 64:7-26.
- Shieber, A. 2019. Assessment of police effectiveness, efficiency, and legitimacy. Available at: Kent Blogs. blogs.kent.ac.uk
- South African Police Service Strategic Plan. 2020 to 2025.
- Theys, N.A. & Schultz, C.M. 2020. A qualitative perspective of talent management. *Journal of Contemporary Management*, 17(1):64-85.
- Tengpongsthorn, W. 2016. Factors affecting the effectiveness of police performance in Metropolitan Police Bureau. *Kasetsart Journal of Social Sciences*, 38:39-44. <http://dx.doi.org/10.1016/j.kjss.2016.07.001>
- Vuma, P.R. 2016. Measuring the ability of the police to prevent crime: could this assist in stressing the importance of crime prevention? *Acta Criminologica: African Journal of Criminology & Victimology*, 29(1).
- Zinn, R. 2017. The policing of robbery with aggravating circumstances: Case study of incarcerated offenders of home invasions, carjackings and cash-in-transit heists in South Africa. *Acta Criminologica: African Journal of Criminology & Victimology*, 30(2)

SSIRC 2023-050**EXPLORING THE LINK BETWEEN EMPLOYEE PERFORMANCE AND JOB MOTIVATION****C.C. Mara**

University of Johannesburg, South Africa

ABSTRACT

A Johannesburg-based organisation has recently experienced increased levels of absenteeism, low morale, and higher levels of employee turnover. Failure to attract and retain motivated employees has been proven to result in unmet corporate performance targets and the long-term competitiveness of organisations where departing employees negatively affect the morale of residual employees. The many young entrants into the South African workforce are motivated differently, and prefer flexible work conditions, respect, recognition, communication, learning opportunities and work-life balance. Considering the large youth contingent in South Africa, the preferences of this young workforce are important to consider. Adopting a positivistic ontology, this study was conducted quantitatively. Descriptive research was used to collect data from 68 APS Pty Ltd employees surveyed to investigate the strength and direction of the relationship between employee performance and job motivation. The sample was representative of the population of 72 that work at APS Pty Ltd. Results proved that while both intrinsic and extrinsic factors motivated employees, it was more the absence of intrinsic motivating factors, notably recognition and career advancement opportunities, that led to the human capital problems experienced at APS. Also, while the absence of extrinsic motivation demotivated employees, their introduction did little for employee motivation. It is recommended that APS embarks on intrinsic motivation, such as job-redesign and reward management, to emphasise what has worked well in terms of intrinsic rewards. In addition, since this was a cross-sectional study, longitudinal research may present better results, from which policy decisions may flow.

KEYWORDS: (5 - 7 words): human capital; job design; motivation; performance; South Africa**1. INTRODUCTION**

Although doing business in the 5th Industrial Revolution is mostly technology-driven, more than ever, humans and their interaction with technology have enjoyed renewed research attention (WEF, 2018). Several intrinsic and extrinsic motivators are used in modern organisations to keep employees motivated to stay with their organisations longer, including training and development, innovative compensation efforts and employee engagement, aimed at enhancing employee commitment and increased job confidence (Biason, 2020). Based on the notion that motivated employees are results-oriented, identify with the organisation and focus on achieving specific goals, many organisations invest in having a pool of motivated and engaged employees through training and development (Ford, Baldwin & Prasad, 2018).

APS Pty Ltd, a Johannesburg based organisation, has been experiencing an increase in absenteeism, employee turnover and a decrease in morale, and management assumed that it could be due to low levels of motivation. A study was therefore initiated to analyse a possible linkage between employee performance and job motivation. Since employee performance is directly linked to the quality or quantity of work, and organisational success is impacted by employee performance (Lee, Hom, Eberly & Li, 2018), motivation was highlighted as a potential explanation for the lack of performance. It is in the interest of any manager to understand what keeps their employees motivated in an ever-dynamic business environment (Mara, 2019) and therefore this study may be valuable to a wider range of organisations. Motivated employees who are psychologically engaged with their work may contribute to organisational performance (Biason, 2020). In contrast, management's failure to attract and retain talented employees may result in the loss of skills, expertise, corporate memory, human capital, and it may decrease the morale of remaining employees (Ford *et al.*, 2018). Therefore, understanding what motivates employees and what makes them remain with the organisation for an extended period is crucial for the retention of human capital and, more importantly, for the success and sustainability of the organisation (Doppelt, 2019; Mara, 2019). It is, however, not clear if managers understand which motivational factors may help the organisation increase productivity and optimum employee performance. Considering that motivated employees generally perform better, which reflects in reduced levels of absenteeism, employee turnover, grievances, and tardiness (Warnich, Carell & Hatfield, 2015), managers should further analyse how employee motivation influences work performance. Therefore, a problem statement for this study may be stated as follows:

How does employee motivation influence work performance at APS South Africa?

To answer this question, a primary and several secondary objectives may be stated as follows:

Primary objective:

To investigate how employee motivation influences their work performance at APS Pty Ltd.

Secondary objectives:

- To determine the extrinsic and intrinsic motivational factors at APS Pty Ltd.
- To determine the extrinsic and intrinsic factors that influence employee motivation at APS Pty Ltd.
- To determine how motivational factors influence employee performance.
- To make recommendations on factors that motivate employees to enhance performance.

To disentangle these objectives, the researcher had to translate them into various practical steps and empirically investigate the research problem. An organisation was decided upon, a sample of respondents were selected and surveyed, and data was analysed qualitatively. What follows next is a discussion of the relevant literature that underscores this study.

2. LITERATURE REVIEW

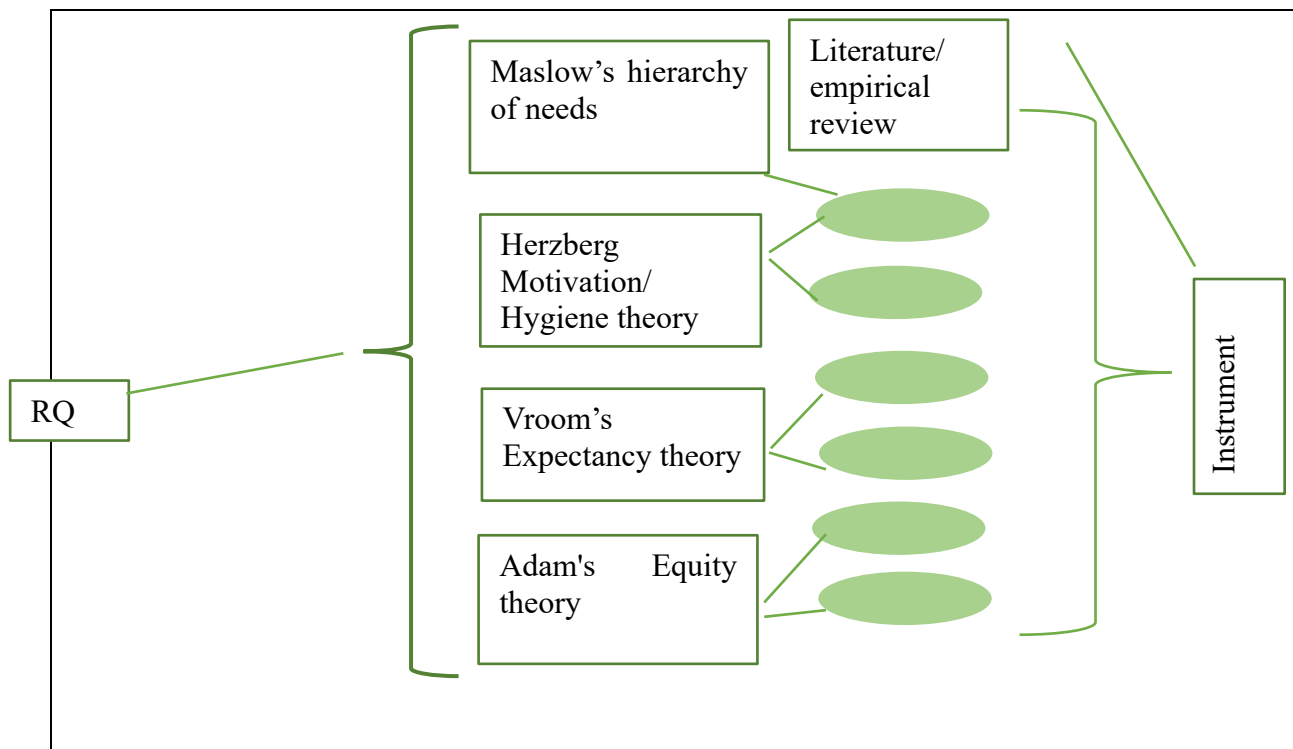


Illustration 1: Graphically illustrated conceptual framework. Source: author design

2.1 Overview

Illustration 1 above contains a graphic representation of the theories selected to ground the literature for this study. Various models, theories, and ideas have been forwarded by various authors to analyse how employee motivation influences work performance. Haque, Haque and Islam (2014) highlight four popular motivation theories that have been used in management studies over the years, namely Maslow's hierarchy of needs, Herzberg Motivation/Hygiene theory, Victor Vroom's Expectancy theory and Adam's Equity theory. Morgenroth, Ryan and Peters (2015) agreed and categorised these theories as content theories of motivation and process theories of motivation. While there are many others, these theories, as contained in Illustration 1 above, will be discussed briefly as the main theories to ringfence the literature studied for this paper. Following this illustration of the four theories and how they relate to the literature the researcher selected, this section continues with a brief discussion of each of the theories and relevant literature. The section is concluded with a summary of the concepts and literature.

2.2. Theoretical review

Motivation implies an inner state that drives actions in humans to behave in a certain manner and towards personal goals (Judge & Zapata, 2015). According to Haque *et al.* (2014), employees are motivated by environmental factors, which factors are important to managers to consider. We are generally defined as motivated when we display the willingness to put forth effort in pursuit of organisational objectives (Kulkarni, Narasimhan, Saeedi & Tenenbaum, 2016). Every individual

therefore possesses that factor that has the potential to affect the way, strength, and eagerness of behaving towards work (Judge & Zapata, 2015).

2.2.1. Content motivational theories

The content theories of work motivation attempt to determine what motivates people at work (Morgenroth *et al.*, 2015). These theories focus on the ‘what’ of motivation (Rhee, 2019). The most prominent theories in this category are Maslow’s hierarchy of needs theory (Maslow, 1943), and Herzberg’s two-factor theory (1966).

Maslow’s hierarchy of needs theory progresses through a hierarchical order of importance, suggesting that people are in a continuous state of motivation and that the nature of that motivation is variable and complex (Maslow, 1966). Maslow suggests that people are rarely in a state of complete satisfaction except for a short while. As they fulfil one need, another assumes prominence and motivates further effort until satisfied (Morgenroth *et al.*, 2015). Unless and until a lower need has been satisfied, higher needs do not motivate. Once a need is satisfied, it no longer motivates, only unmet needs motivate (Rhee, 2019). Maslow’s hierarchy of needs is still widely used today, but criticized for, among others, missing a social connection and collaboration, the absence of which makes attaining these needs not possible (Fallatah & Syed, 2018). Managers will need to determine at which stages the employee is in their lives if they want to use this model to motivate employees and not paint everyone with the same brush.

Susan Harter’s Perceived Competency Motivation Theory (1992) states that the self-esteem construct in Maslow’s hierarchy of needs is correlated with motivation to perform tasks. Self-esteem is incumbent on both a sense of competence and the social support and acceptance an individual receives (Davies, Nambiar, Hemphill, Devietti, Massengale & McCredie, 2015). While Harter’s study was conducted in the sport context, her results are easily applicable to the workplace. In modern organisations, employees tend to gain self-esteem through building social capital and when they experience an emotionally safe environment (Hur, 2018).

The second content motivational theory is Herzberg’s motivation-hygiene theory (1966). This theory shares similarities with Maslow’s need hierarchy, as it identifies with job satisfaction, growth, and self-actualisation (Alshmemri, Shahwan-Akl & Maude, 2015). Frederick Herzberg (1966) found that specific characteristic of a job consistently related to job satisfaction and dissatisfaction. The Two-Factor Theory states that certain factors in the workplace cause job satisfaction, while a separate set of factors cause dissatisfaction (Jensen, 2018).

Herzberg called the factors that increased satisfaction *motivators*; these include recognition, achievement, the work itself, responsibility, advancement, and growth (Alshmemri *et al.*, 2015). Conversely, he termed factors causing dissatisfaction as *Hygiene Factors*, and these include salary, organisational policies, levels of supervision, work conditions, status, security, relationships with supervisors, and peers (Alshmemri *et al.*, 2015). What is interesting about Hertzberg’s findings, is that addressing the causes of dissatisfaction does not in itself automatically create satisfaction (Hur,

2018; Jensen, 2018). Increasing satisfaction is a two-step process that involves first eliminating the hygiene factors and then focusing on the motivators that make employees happy at work (Mehrad, 2015). Furthermore, Hur (2018) found that job satisfaction was not impacted by hygiene factors as Herzberg theorised.

2.2.2. Process motivational theories

The process theories of motivation, which focus on how the employee is motivated, include Vroom's Expectancy theory and Adam's Equity theory. Victor Vroom (1964) theorised that a person tends to choose one option over another, especially if they believe that chosen efforts will lead to performance, performance will lead to rewards, and rewards may be either positive or negative (De Simone, 2015). This theory has three main characteristics, namely expectancy (the belief that effort will lead to goal attainment), instrumentality (the belief in a reward if performance expectations are met), and valence (how much we value the reward) (Lloyd & Mertens, 2018). According to Nimri, Bdair, and Al Bitar (2015), expectancy theory is the most comprehensive motivational model that seeks to predict or explain task-related effort. However, the theory was criticized almost immediately for its simplicity (Lawler, 1971) and its inability to predict workplace motivation and behaviour (Lunenburg, 2011). Lloyd and Mertens (2018) suggested a fourth element, namely the social context. In this respect, human beings have social needs, and our intra-organisational social capital (IOSC) tends to influence our workplace motivation (Jensen, 2018).

Adam's equity theory (1963) focuses on people's perception of the fairness of their work outcomes, relative to their work inputs. According to Mulder (2018), employees judge the fairness of a leader based on social comparisons. Therefore, employees base their inputs/outcomes ratio on that of other employees (Pritchard, 1969; Mulder, 2018). They tend to judge a leader's fairness based on the leader's treatment of other employees similar in job titles and make these comparisons by evaluating what they give to the organisation to what rewards the organisation gives back to them (Tseng & Kuo, 2013). Pritchard (1969) criticised this theory and stated that an input might be considered as an outcome in certain instances, or a person making the comparison might perceive factors such as fringe benefits and special parking at work as correlated, while these are separate. Pritchard (1969) also questioned the selection of the others we tend to draw comparisons with, and whether it depends on status, salary, or rank, how many others and whether the others are mutually exclusive.

2.3 Literature/empirical review

Armstrong (2023) states that constructs such as motivation, commitment and engagement drive human behaviour in the workplace. Therefore, literature on the selected constructs was chosen to aid the researcher in addressing the research question. Also, a short overview is included of empirical investigations on topics like the current study.

2.3.1 Motivation

People are generally motivated or moved to do something given sufficient reason for it (Armstrong, 2023). Well-motivated people purposefully act, although the work itself may provide additional motivation in the form of inspirational leadership, recognition, and rewards (Davies *et al.*, 2018).

2.3.2 Commitment

Commitment is about identifying with the organisation and positive feelings toward their work (Hur, 2018). It refers to attachment or loyalty, a strong desire to remain a member of the organisation, a strong belief in, and acceptance of, organisational goals and values, and a readiness to exert effort on behalf of the organisation (Armstrong, 2023).

2.3.3 Engagement

Engagement contains elements of motivation and commitment (Armstrong, 2023). The latter two states of being are more about management actions that affect employees collectively, such as improvements in work conditions (Davies *et al.*, 2018). Engaged employees are interested in, and positive, or even excited about their job (Mulder, 2018). Employees tend to repay their organisation through their level of engagement and in response to the resources they receive from the organisation (Nimri *et al.*, 2015). Engagement is driven by challenging work, autonomy, variety, feedback, fit (compatibility with coworkers, managers, the job itself, and the organisation) growth opportunities, reward, and recognition (Hur, 2018).

2.3.4 Job enlargement

Job enlargement provides for the horizontal extension of the job, i.e., additional tasks added to the job (Armstrong, 2023). This provides the worker with increased variety. Job enlargement is increasing the number of different tasks in each job by changing the division of labour. The idea is that by increasing the range of a task performed by a worker, it will cause a drop in boredom and fatigue and should increase motivation (Nimri *et al.*, 2015). In cases where the manager simply expanded the number of jobs or tasks to be done (that is, increasing the job scope), motivation has not increased. Furthermore, job satisfaction increases where the scope of knowledge used in the job is expanded (Armstrong, 2023).

2.3.5 Job enrichment

Job enrichment is affected through the vertical extension of the job, thus providing a worker with increased task complexity and responsibility (Nimri *et al.*, 2015). Job enrichment is increasing the degree of responsibility a worker has over the job by empowering workers to experiment to find new or better ways of doing the job (Jensen, 2018). In addition, job enrichment encourages workers to develop new skills, allowing workers to decide how to do the work and giving them the responsibility for deciding how to respond to an unexpected situation and allowing workers to monitor and measure their performance (Mulder, 2018). Job enrichment increases the job depth (the degree of control employees has over their work). Employees are empowered to do some of the jobs typically done by their managers. The tasks involved should give the employees increased freedom, independence, and responsibility (Morgenroth *et al.*, 2015).

2.3.6 Employee embeddedness

Employee retention is a management imperative as it affects productivity, costs, and sustainability (Mara, 2019). To a large extent, therefore, retaining employees is a function of their satisfaction, and feelings of commitment towards their teams and the organisation (Booyesen, 2019). While much

research emphasis has been placed on the reasons for employees to leave an organisation, employee embeddedness places the emphasis on reasons for an employee to stay with an organisation. Managers who can successfully find such reasons and strategically enhance them, may have better control over retaining competent employees (Irabor & Okolie, 2019).

2.4 Empirical Review of the Impact of Motivation on Employee Performance

The following sub-section focuses on the review of related literature, particularly on how employee motivation influences work performance at APS Pty Ltd. Most of the studies that show the relationship between motivation and employee performance were conducted in developing countries.

2.4.1 The Impact of Motivation on Employee Performance in Selected Insurance Companies in Nigeria (2019) (Ekundayo, 2018)

The study conducted on the impact of motivation on employee performance in selected insurance companies in Nigeria by Oluwayomi Ayoade Ekundayo, of Joseph Ayo Babalola University, Nigeria, demonstrates that the selected insurance company effectively and appropriately applied positive motivation to make its employees perform exceptionally well. Positive motivation is a reward for good performance; it also discovered that there is a strong relationship between motivation and employee performance. The type of motivation determined the level of performance of the employee. When positive motivation was efficiently, skilfully, and effectively applied, the level of employee performance increased, and vice versa (Mulder, 2018).

2.4.2 An investigation of the relationship between work motivation (intrinsic & extrinsic) and employee engagement (Khan and Iqbal, 2013).

This study done by Khan and Iqbal (2013) found a strong positive relationship between intrinsic and extrinsic motivation factors and employee motivation, employee engagement, and employee performance. The four main intrinsic motivational factors that had more influence on the employee motivation and engagement were: challenging work, job appreciation, satisfaction, and stress, while the four extrinsic factors were job security, good wages, promotion, and growth and recognition. In closely similar relationships done by Christian, Garza, and Slaughter (2011) and Chalofsky and Krishna (2009) a link was observed between work engagement and motivational factors (contextual as well as individual factors). Kahn (1990) also related employee engagement to motivation. Fairlie (2011) and Macey and Schneider (2008) pointed out that an investigation was required to find the link between work motivation and employee engagement. All the above studies support the results of Khan and Iqbal (2013), proving that a strong positive direct relationship exists between work motivation (intrinsic and extrinsic) and employee performance.

2.4.3 Relationship between employee motivation and performance: A study at University Technology MARA (Terengganu) (2015) (Mohd Said, Ahmad Zaidee, Mohd Zahari, Ali and Salleh, 2015)

The relationship between employee motivation and job performance among non-academic staff in UiTMT was researched. This study proposed and found that employee motivations could be a

valuable tool in measuring the level of job performance among the non-academic staff in UiTMT. Firstly, the study has substantiated the relationship between individual needs, personal preferences, and work environment towards job performance among the non-academic staff. A motivated employee makes a great effort on carrying out every aspect of his or her duties and responsibilities. These findings agreed with studies done by Aarabi, Subramaniam, and Akeel (2013) in which motivational factors were seen to have a significant effect on employee performance, with intrinsic motivational factors, such as training and promotion, showing a significantly higher influence on motivation.

3. METHODOLOGY

The descriptive research design was seen as the most appropriate research design because it is flexible and can be used to collect a wide range of social and economic information (Mouton, 2015). Descriptive research can be applied in both quantitative and qualitative studies supported by case studies and surveys (Akhtar, 2016). The descriptive research design was selected as it used mainly to describe the status of variables and in this study, the researcher wanted to understand the status of employee motivation and employee performance at APS Pty Ltd. In addition to this, the descriptive research design was adopted as the researcher did not have control over the outcome of the study but was able to generalise the results of the study to the whole population (Creswell, 2015). Furthermore, the positivist ontology, following a top-down research approach, enabled the researcher to move from the general to the specific by selecting a theory, narrowing it down to formulate the study, and test the findings to conclude (Mouton, 2015). Questionnaires were used as the research instrument as they create a value-free stance to creating new knowledge (Creswell, 2015).

Random probability sampling was best suited for data collection in this study, for which the characteristics of the population from the sample were inferred and because this method will give every subject in the population an equal chance to be selected (Akhtar, 2016). Mouton (2015) states that the sample selected must represent the target population for the researcher's findings to be generalised to the wider population. In this study, the target population was the employees of APS Pty Ltd, who, as a group, had the same interest and characteristics that differentiated them from other groups and individuals (Creswell, 2015).

From a population consisting of 81 employees in eight departments, being Logistics, New Equipment, After Sales, IT, Head Office, Wellness, Marketing, and Business Support, a sample of 72 employees was selected. This is based on a confidence level of 99% and a confidence interval of 5%. An online questionnaire was administered as it facilitated the collection of data from a wide range of participants, was easy to administer, and inexpensive (Pallant, 2011). The questionnaire had a demographic section and a further section containing statements that indicated the level of participant agreeableness on a Likert Scale (Pallant, 2011; Creswell, 2015). Sections B, C and D consisted of questions on extrinsic and intrinsic motivational factors, the extent to which extrinsic and intrinsic employee motivational factors influence employee motivation.

Data was analysed using SPSS Version 25 and enabled the researcher to establish relationships between variables (Pallant, 2011). Both descriptive and inferential statistics were produced and analysed. Furthermore, measures of central tendency, skewness, kurtosis, inferential statistics were also analysed. Inferential statistical analysis was done to determine the relationship between employee motivation and employee performance (Mouton, 2015). In line with the scientific research principles, a Cronbach Alpha was done on the research instrument to test the internal consistency reliability on all the sections of the questionnaire and the results showed a Cronbach Alpha of 0.83, which is acceptable in qualitative analysis (Pallant, 2011).

4. RESULTS AND DISCUSSION

Of the 72 questionnaires distributed, 67 were completed and returned for analysis. Thus, the response rate of 93.05% was observed and was sufficient for inferential purposes (Creswell, 2015). The Cronbach's Alpha was computed to estimate the internal consistency of the research instrument on each of the four main sections of the study. The Cronbach's alpha value ranges between 0 and 1 with 0 exclusive and an alpha value close to zero representing the lowest reliability level, while 1 indicates the highest reliability of the research instrument (Mouton, 2015). According to Pallant (2011), the Cronbach's alpha value of less than 0.6 is unacceptable, while a value of between 0.80 and 0.90 is very good. Table 1 presents the reliability analysis results of the study.

4.1 General

Table 1: Cronbach's Alpha test results per section

| Section | Item | N | Cronbach's Alpha | Comment |
|---------|--|----|------------------|------------|
| B | To determine the extrinsic and intrinsic motivational factors at APS Pty Ltd. | 15 | 0.921 | Very good |
| C | To determine the factors that motivate employees in an organisation. | 14 | 0.788 | Acceptable |
| D | To evaluate the influence of motivation on performance. | 14 | 0.901 | Very good |
| E | To make recommendations on factors that motivate employees to enhance their performance. | 14 | 0.877 | Very good |
| Overall | | 57 | 0.833 | Very good |

Source: Author's compilation from IBM SPSS Statistics v25

Reliability analysis was conducted on the perceived task consisting of up to 15 items in each section. The findings in Table 1 show Cronbach's Alpha value of 0.921 for Section B, which was accepted as very good, 0.788 for Section C, which was viewed as acceptable, and 0.901 and 0.877 for Sections D and E, respectively, which were also accepted as very good. The results of the study showed that the questionnaire reached acceptable reliability with Cronbach's Alpha value for all the

items (57) in sections B, C, D, and E of 0.833, which is considered very good. This Cronbach's Alpha value implies that all the variables for the study are accepted for investigative purposes.

4.2 Demographic results (Section A)

The sample results show that 64.18% of the respondents in the sample were males, while females constituted 35.82% of the sample. This demographic factor may have influenced the aggregated feedback as females were found to be more likely than their male counterparts to be influenced by non-financial motivational factors at work, such as recognition (Stefko, Bacif, Fedorko, Horvath & Propper, 2017).

Considering the demographics, that 4.48% (3) of the respondents were between 18 and 25 years, 38.81% (26) were between 26 and 36 years, 50.75% (34) were between 37 and 45 years and only 5.97% (4) were above 56 years, most of the employees surveyed were 37 to 45 years old. Age appears to be a factor in terms of human motivation (Hitka & Balzova, 2015). Motivation was also found to be stronger for older than for younger employees (Boumans, de Jong & Janssen, 2011). These authors further found that to remain motivated, older employees were more in need of intrinsically challenging and fulfilling jobs than younger employees. However, their study found a stronger positive association between career opportunities and motivation among younger employees.

Irdianto and Pintra (2016) found that those with higher levels of education were more motivated by intrinsic factors than those with lower levels of education. Their results may explain the low levels of motivation found in the current study, which proved that 34.3% (23) of the respondents have matric as their highest educational qualification. Only 4.5% of the respondents held post-graduate qualifications and they were from the sales, IT department, accounts and services and support departments.

While Section A contained questions on demographic factors, Sections B, C and D of the questionnaire ranged from questions on internal and external motivating factors, to questions on motivation and employee performance. The results of these sections will be discussed in relation to the research objectives. To attain this objective, respondents were prompted to give their personal opinions on the suggested extrinsic and intrinsic motivational factors at APS Pty Ltd. Respondents indicated their level of agreement that a particular motivational factor was available at APS Pty Ltd on a Likert style question, ranging from 1 = Strongly Disagree; 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

4.3 Section B: Identifying the intrinsic and extrinsic factors at APS Pty Ltd

Fifteen factors regarded as intrinsic and extrinsic motivational factors were identified at APS Pty Ltd. The perceptions of the respondents on the identified factors were quantified and the findings are presented in Illustration 2 below.

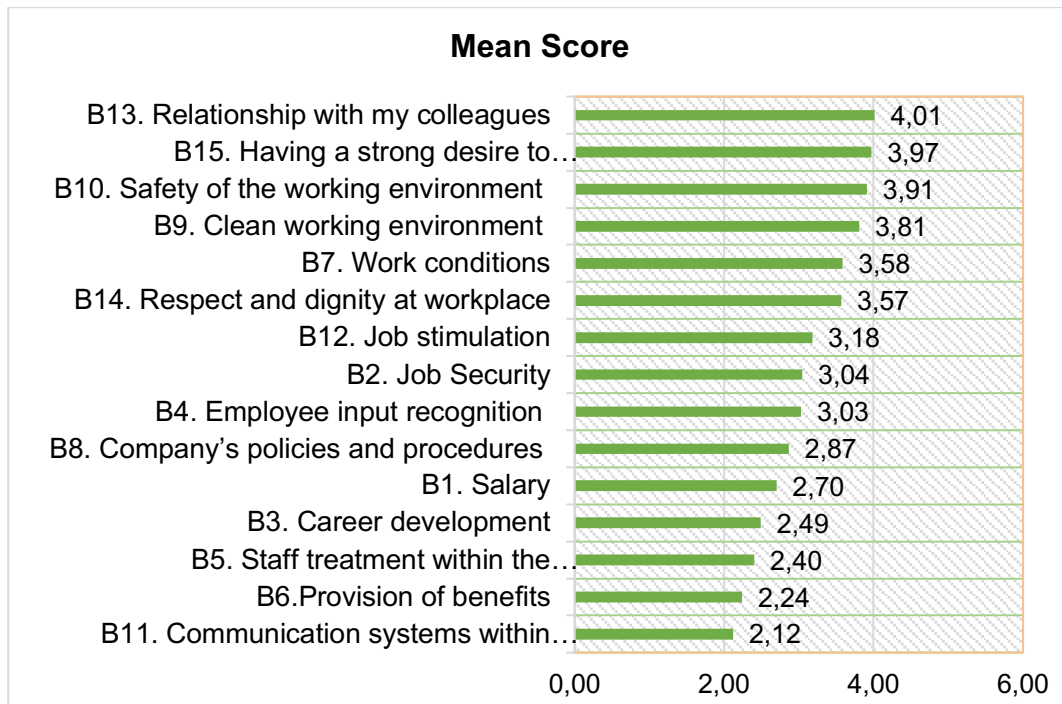


Illustration 2: Intrinsic and extrinsic motivational factors at APS Pty Ltd

(Source: Author's compilation from IBM SPSS Statistics v25)

Section B of the questionnaire sought to determine the extent to which the intrinsic and extrinsic factors influence employee motivation at APS Pty Ltd. To accomplish this objective, perceptions on the impact of intrinsic and extrinsic motivational factors at APS Pty Ltd were recorded on a Five-point Likert Scale, where responses meant the following: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, and 5= Strongly Agree.

Fourteen intrinsic and extrinsic motivational factors were identified as possible factors that influence employee motivation at APS Pty Ltd. The individual perceptions of the motivational factors were quantified using the Relative Importance Index (RII) adopted from Ozdemir (2010). RII facilitates in determining the contribution of a particular variable to the variable of interest (employee motivation), both by itself and combined with other independent variables. The computation of the Relative Importance Index (RII) is as follows:

$$Relative\ Importance\ Index\ (RII) = \frac{1}{A * N} \sum W_i$$

Where $W_i = p_i * UI$, $0 \leq RII \leq 1$; and $i = 1, 2, 3, 4, \& 5$

p_i = frequency of respondents sharing an identical rating on the supposed intrinsic and extrinsic motivational factors that influence employee motivation at APS Pty Ltd organisation.

UI = respondent's rating of an intrinsic and extrinsic motivational factor on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

N = is the sample size (the total number of respondents, which in this case is 67).

A = the integer value of the highest response on the Likert scale, which in this case is 5.

The RII value ranges from 0 to 1 with 0 exclusives. The higher the RII value, the greater the extent to which intrinsic and extrinsic motivational factors influence employee motivation at APS Pty Ltd

organisation. The most significant motivational factors were found to be the ones with the RII score greater than or equal to the overall RII score, which in this case is 0.738.

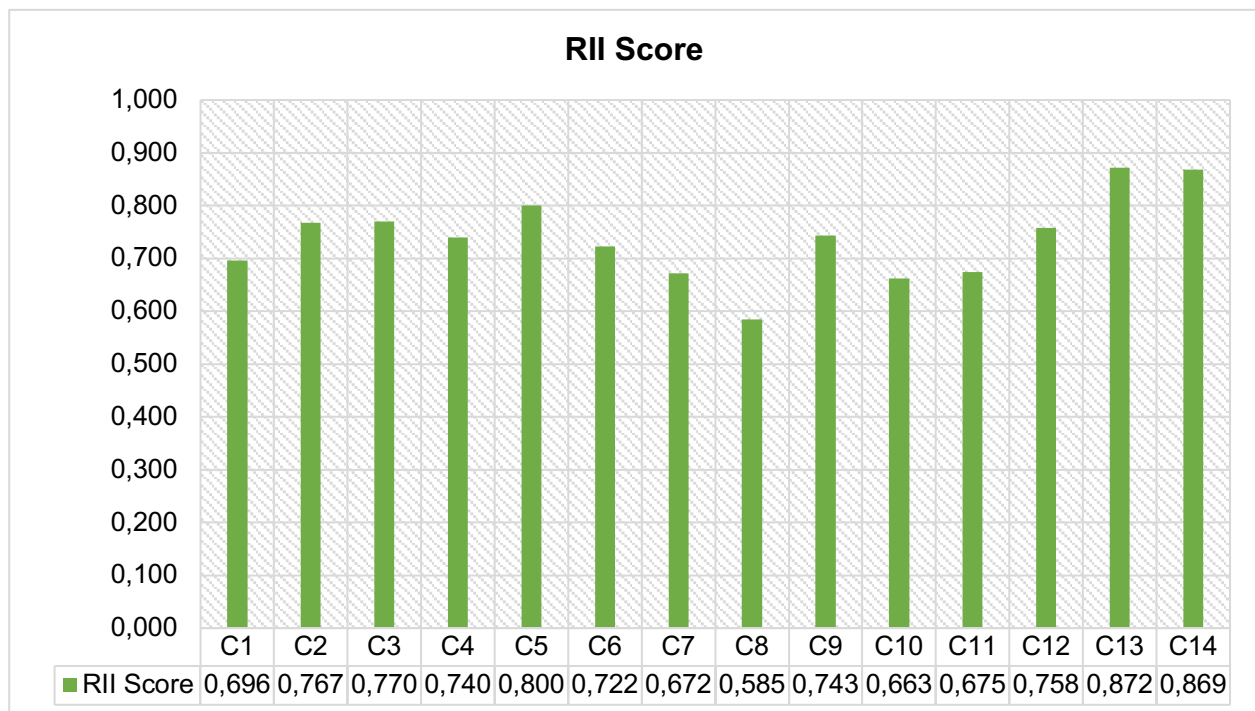


Illustration 3: RII Scores of intrinsic and extrinsic factors that influence employee motivation. Source:
Author's compilation from IBM SPSS Statistics v25

4.4 Section C: The influence of motivational factors on employee performance at APS Pty Ltd

The secondary objective 3 of this study was to determine the influence of motivational factors on the performance of employees at APS Pty Ltd. Using the Relative Importance Index (RII) to determine the extent to which the identified motivational factors influence employee performance at APS Pty Ltd, the RII was computed for each factor to determine the most and least significant motivation factors on employee performance at APS Pty Ltd. The factors were ranked according to the RII scores with an RII of 1 being the most significant and RII close to 0 has the least significant influence on employee performance. The results for the RII scores are presented in Illustration 4 below.

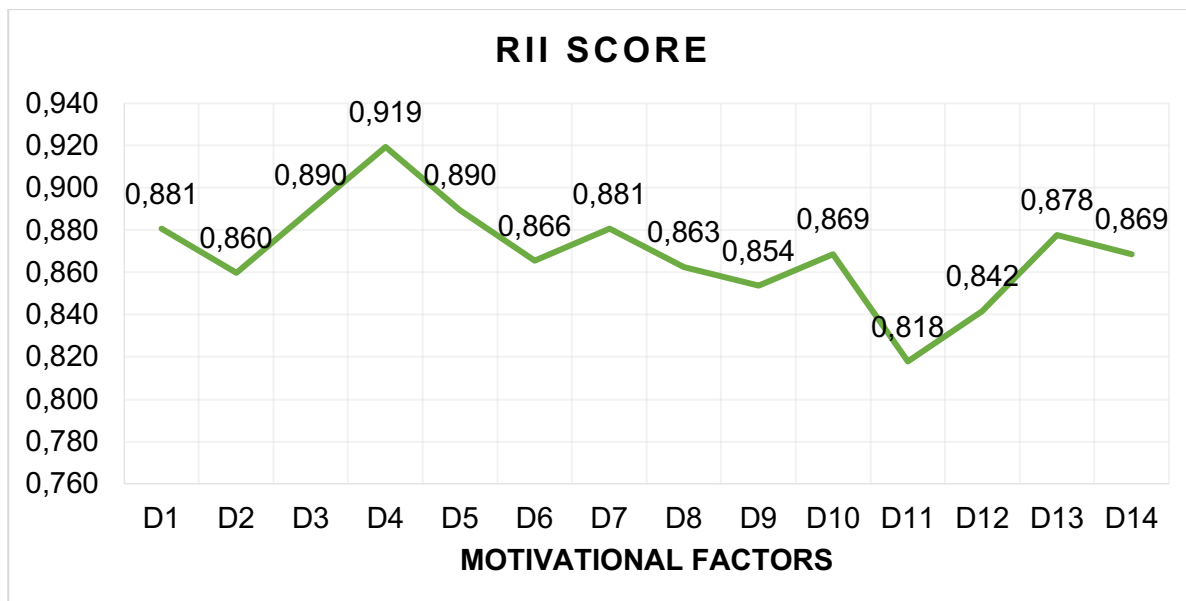


Illustration 4: RII Scores of motivational factors that influence employee performance. Source: *Author’s compilation from IBM SPSS Statistics v25*

The results in Illustration 4 above show that fourteen factors were identified as motivational factors that influence employee performance at APS Pty Ltd company. The intrinsic and extrinsic motivational factors identified at APS Pty Ltd included being happy with one’s salary, job security, the opportunity for career development, being involved in the decision-making process, good working conditions, being happy with company policies and procedures and respect and dignity at work. However, the five top motivational factors were a positive relationship with colleagues, work goals, a safe working environment, a clean working environment, and good working conditions. These results align with those of Ryan and Deci (2017) who found that salary was one of the main motivational factors within a work environment. Mehrad (2015), and Bekes, Perry and Robertson (2018) have posited that job security is one of the main motivational factors within the work environment. These extrinsic motivational factors were regarded as more important at APS Pty Ltd, while the least important motivational factors were communication systems within the organisation, employee benefits, and staff treatment. These could be identified as being demotivation factors within the organisation. This result supports that of Aarabi *et al.* (2013), who found that good communication was one of the significant factors that motivated employees at the workplace.

Section B of the questionnaire addressed secondary objective 2: to determine the extent to which extrinsic and intrinsic employee motivational factors influence employee motivation at APS Pty Ltd or what demotivates them. Twelve of fourteen motivational factors had a significant effect on employee motivation, and being treated with respect and dignity was reported to have had the greatest effect on motivation. The 14 factors can be seen in Illustration 5 below. These results support the study of Irdianto and Pintra (2016) who argued that dignity and respect among co-workers had a profound effect on the level of motivation of employees. Being given learning opportunities was found to be the next highest motivational factor at APS Pty Ltd. Employees are

motivated when they are allowed to attend programmes and are exposed to learning. Job security was found to be the third influential factor in employee motivation. Irdianto and Pintra (2016) argue that a secure job enhances the employee to focus on the job and the long-term prospects it offers. The study also found that employees were motivated when they were given rewards for doing extra work. Career advancement was seen to be one of the two factors that had the least influence on the motivation of employees at APS Pty Ltd. However, scholars such as Trapp and Kehr (2016), have argued that employees are concerned about fulfilling their career needs in a safe work environment, thus its presence can be a source of motivation for the employees.

4.5 Section D: The influence of motivation on employee performance

Objective 3: To determine how motivation influences their performance.

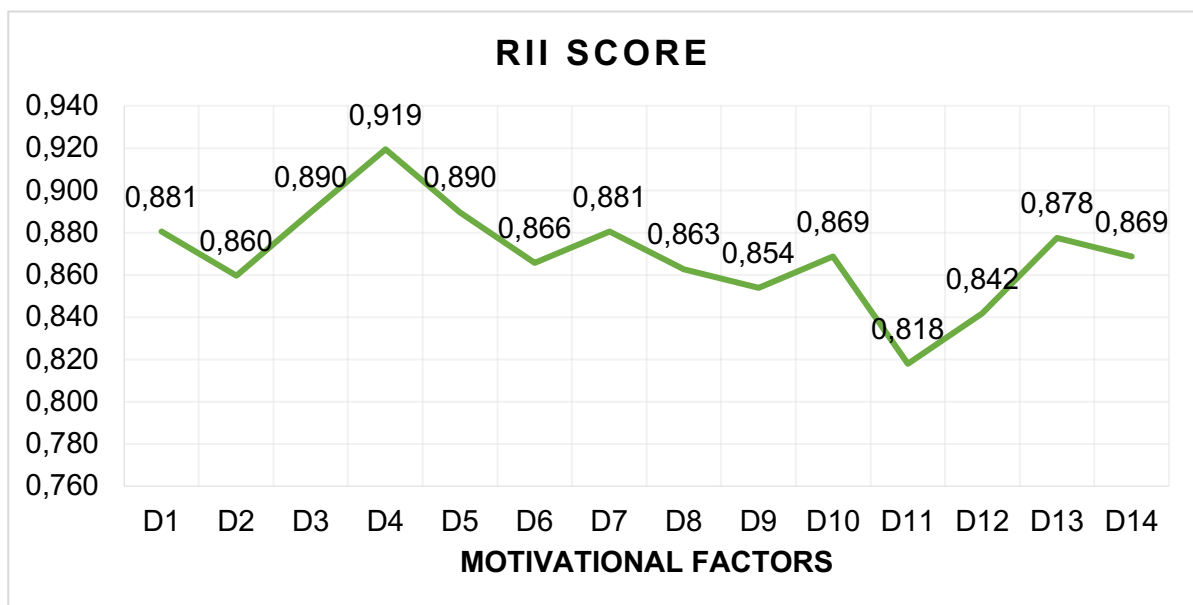


Illustration 5: RII Scores of motivational factors that influence employee performance. Source: *Author’s compilation from IBM SPSS Statistics v26*

Respondents perceived the following motivational factors to have influenced their performance at APS Pty Ltd: a job well done, clear communication by management, being with a well-motivated team, learning opportunities, a clear career path for advancement, and time off for family. These six most significant motivational factors are intrinsic motivational factors (Khan and Iqbal, 2013; Strauss, Parker & O’Shea, 2017). This result was also supported by Mulder (2018) who argues that intrinsic factors such as recognition for a job done can help improve the motivation of employees and hence have their effect on performance. Khan and Iqbal (2013) emphasise the importance of communications within the organisation, especially communications that involve operational activities, to ensure that the business achieves its objectives. In agreement, Nimri *et al.* (2015) state that poor communication and coordination by the management contribute to poor employee performance. The study also found that factors such as an increase in participation in company strategy developments, being involved in more engaging tasks, provision of travel benefits, and cleaner working conditions, had a significant influence on employee performance. The motivational

factors that have the least influence on employee performance were social events provided by the organisation and an increase in responsibility at work.

4.6 Conclusions from the findings

The responses from the empirical investigation showed that extrinsic and intrinsic motivational factors influenced the level of motivation among employees. The results also showed that other motivational factors, such as a good salary and job security, had the highest influence on the employees' level of motivation. The study illustrated that motivation affected employee performance. While all motivational factors had an influence on employee performance, factors such as recognition for work done as well as being treated with respect and dignity had significantly more influence on employee performance.

5. CONCLUSION AND RECOMMENDATIONS

Following the empirical investigation, the following recommendations are presented to managers:

5.1 Recommended actions

Changes in the workforce, such as a younger and more diverse contingent, pose various challenge to managers in making the correct decisions. This workforce of today is comprised of employees from various generations, racial groups, cultures, and nationalities with varying demands and expectations. The study, therefore, sought to determine how motivational factors can influence employee performance. There was a need to assess the extrinsic and intrinsic motivational factors and how the extent these have influenced the motivation level of employees at APS Pty Ltd. The study also aimed at giving recommendations on improving factors that can motivate employees to enhance their performance.

It is recommended that employees are recognised of *a job well-done* as this was seen as having a highly significant influence on employee performance. This can be achieved by offering awards for outstanding performance. There is a need for APS Pty Ltd to have well-designed remuneration systems in place as well as offering competitive salaries and remuneration packages.

Clear communication between employees and the management was ranked the second most significant influential motivation factor for employee performance at APS Pty Ltd. There is a need to build clearer communication structures within the organisation to encourage management and subordinate communication.

Most respondents agreed with the assertion that *a well-motivated team* would enhance their performance, and this factor was ranked the third most important to influencing employee performance at APS Pty Ltd. APS Pty Ltd needs to ensure that the team members are well motivated, because the team members who may not be motivated may hurt the group performance.

The respondents ranked *having learning opportunities* as the fourth most significant motivational factor that influences employee performance at APS Pty Ltd. Learning, creativity, and innovation

within the organisation can be a useful motivational tool to motivate employees to achieve more in such a way that they will commit themselves to continuously improving employees' skills. APS Pty Ltd may enrol their employees in the various development programs available in the market. The programs do not only allow the employees to gain new skills, but they boost the employee's self-confidence and self-esteem, as well as their intentions to stay with the organisation.

A clear *career path for advancement* provided by the organisation was also found to be very significant in influencing employee performance at APS Pty Ltd. APS Pty Ltd needs to ensure that there are opportunities within the organisation for career advancement. This can be done by having proper procedures for employee development and promotion. The employees need to be informed of opportunities for promotion so that they can set goals for themselves and work towards the achievement of those goals.

Adequate time off for family was regarded as one of the most significant factors that influence employee performance at APS Pty Ltd. This can be done by having a good structure of leave days and off days' system in place. Employees within APS Pty Ltd must be encouraged to take their leave days when they accrue instead of redeeming them for cash.

5.2 Future Research

While this study has contributed theoretically and empirically to the body of knowledge on employee motivation, future researchers should consider its limitations, namely its relatively small size and scope. However, ample opportunities are presented for future research using the same design. Future research should investigate further factors that may influence employee performance, perhaps factors that have been sourced by the employees themselves during a pilot study. This study examined motivational factors and their effect on employee performance at a single point in time. In addition to this, future studies, perhaps conducted longitudinally, and looking at a wide variety of organisations and contexts, may provide new insights into the effects of employee motivation on employee performance. A longitudinal study would therefore provide a significant approach in testing and retesting the outcomes of future studies. Further research should consider both quantitative and qualitative techniques to understand the phenomena in more detail. By considering a qualitative type of research, such as focus group interviews, a deeper and richer understanding of the phenomenon may be attained.

6. REFERENCES

- Aarabi, M.S., Subramaniam, I.D. & Akeel, A.B. (2013). Relationship between Motivational Factors and Job Performance of Employees in Malaysian Service Industry. *Asian Social Science*, 9(9), 301-310.
- Akhtar, I.M. (2016). Research Design. *Research in Social Science: Interdisciplinary Perspectives*, 1(1), 68-84.
- Alshmemri, M., Shahwan-Akl, I. & Maude, P. (2015). Herzberg's Two-Factor Theory. *Life Science Journal*, 14(5), 12-16.

- Armstrong, M. (2023). *Armstrong's Handbook of Human Resource Management Practice*, 16th ed. London: Kogan Page.
- Biason, R.S. (2020). The effect of job satisfaction to employee retention. *International Journal of Economics, Commerce and Management*, 7(3), 405-413.
- Booyesen, C. (2019). *Antecedents to the intention to quit amongst Generation Y Information Technology professionals in software development organisations in South Africa* (Doctoral dissertation, Stellenbosch: Stellenbosch University).
- Boumans, N.P.G., de Jong, A.H.J. & Janssen, S.M. (2011). Age-Differences in Work Motivation and Job Satisfaction. The Influence of Age on the Relationships between Work Characteristics and Workers' Outcomes. *The International Journal of Aging and Human Development*, 73(4), 331-350.
- Creswell, J.W. (2015). *A concise introduction to mixed methods research*. California, USA: Thousand Oaks.
- Davies, B. Nambiar, N. Hemphill, C. Devietti, E. Massengale, A. & McCredie, P. (2015) Intrinsic Motivation in Physical Education. *Journal of Physical Education, Recreation & Dance*, 86, 8, 8-13, DOI: 10.1080/07303084.2015.1075922
- De Simone, S. (2015). Expectancy value theory: Motivating health care workers. *American International Journal of Contemporary Research*, 5(2), 19-23.
- Doppelt, R. (2019). Skill flows: A theory of human capital and unemployment. *Review of Economic Dynamics*, 31, 84-122.
- Fallatah, R. & Syed, J. (2018). A Critical Review of Maslow's Hierarchy of Needs. In: *Employee Motivation in Saudi Arabia*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-67741-5_2
- Ford, K.J., Baldwin, T.T. & Prasad, J. (2018). Transfer of Training: The Known and the Unknown. *Annual Review of Organisational Psychology and Organisational Behavior*, 5, 201-227.
- Harter, S. (1982). The Perceived Competence Scale for Children. *Child Development*, 53(1), 87-97.
- Haque, M., Haque, M. & Islam, M. (2014). Motivational Theories – A Critical Analysis. *ASA University Review*, 8(1), 61-86.
- Herzberg, F. (1966). *Work and the nature of man*. New York: World Publishing.
- Hitka, M. & Balazova, Z. (2015). The impact of age, education and seniority on motivation of employees. *Business: Theory and Practice*, 16(1), 113-120 doi:10.3846/btp.2015.433
- Hur, Y. (2018). Testing Herzberg's Two-Factor Theory of Motivation in the Public Sector: Is it Applicable to Public Managers? *Public Organizational Review* 18, 329-343.
- Irdianto, W. & Pintra, A. (2016). *The Influence of Education and Economic Background Towards The Training Participants' Motivation and Study Result of UPT-PK Singosari Malang*. AIP Conference Proceedings 1778, 030061
- Irabor, I.E. & Okolie, U.C. (2019). A review of employees' job satisfaction and its effect on their retention. *Annals of Piru Haret University - economic series*, 19(2), 93-114.
- Jensen, J.D. (2018). Employee Motivation: A Leadership Imperative. *International Journal of Business Administration*, 9(2), 93-98.

- Judge, T.A. & Zapata, C.P. (2015). The person-situation debate revisited: Effect of situation strength and trait activation on the validity of the Big Five personality traits in predicting job performance. *Academy of Management Journal*, 58(4), 1149-1179.
- Khan, W. & Iqbal, Y. (2013). *An Investigation of the Relationship between Work Motivation (Intrinsic & Extrinsic) and Employee Engagement*. A Study on Allied Bank of Pakistan. Unpublished Master's degree. Umeå School of Business, Umeå University.
- Kulkarni, T.D., Narasimhan, K., Saeedi, A. & Tenenbaum, J. (2016). Hierarchical deep reinforcement learning: Integrating temporal abstraction and intrinsic motivation. *Advances in Neural Information Processing Systems*, 1(1), 3675-3683.
- Lawler, E.E. (1971). *Pay and organisational effectiveness: A psychological view*. New York: McGraw-Hill.
- Lee, T.W., Hom, P., Eberly, M. & Li, J.J. (2018). Managing employee retention and turnover with 21st-century ideas. *Organisational Dynamics*, 47(2), 88-98.
- Lloyd, R. & Mertens, D. (2018). Expecting More Out of Expectancy Theory: History Urges Inclusion of the Social Context. *International Management Review*, 14(1), 28-77.
- Lunenburg, F. (2011). Expectancy theory of motivation: Motivating by altering expectations. *International Journal of Management, Business and Administration*, 15(1).
- Mara, C. (2019). *Manager perceptions of risk and return in human capital development*. Unpublished doctoral thesis. University of Johannesburg, South Africa.
- McClelland, D.C. (1965). Toward a theory of motive acquisition. *American Psychologist*, 20(5), 321-333. <https://doi.org/10.1037/h0022225>
- Mehrad, A. (2015). Role of Herzberg motivation-hygiene theory on explanation of job satisfaction among staff at organisation. *International Journal of Information Research and Review*, 2(12), 1491-1492.
- Morgenroth, T., Ryan, M.K. & Peters, K. (2015). The motivational theory of role modeling: How role models influence role aspirants' goals. *Review of General Psychology*, 19(4), 465-483.
- Mouton, J. (2015). *Understanding Social Research*. Pretoria, South Africa: Van Schaik Publishers.
- Mulder, P. (2018). Adams Equity Theory. (Online). [Available from ToolsHero: <https://www.toolshero.com/psychology/adams-equity-theory/>].
- Nimri, M., Bdair, A. & Al Bitar, H. (2015). Applying the expectancy theory to explain the motivation of public sector employees in Jordan. *Middle East Journal of Business*, 55(24), 1-13.
- Ozdemir, M. (2010). *A Probabilistic schedule delay analysis in Construction Projects by using Fuzzy Logic incorporated with Relative Importance Index (RII) Method*. Unpublished MSc Civil Engineering. Middle East Technical University.
- Pallant, J. (2011). *SPSS Survival Manual*, 4th Edition. Australia: Allen & Unwin,
- Pritchard, R.D. (1969). Equity theory: a review and critique. *Organisational Behavior and Human Performance*, 4(2), 176-211.
- Rhee, H. (2019). Comparison of Process Theories to Content Theories in Motivating Workforces. *International Journal of Human Resource Studies*, 9(4), 267-274.
- Ryan, R.M. & Deci, E.L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.

- Stefko, R., Bacif, R., Fedorko, R., Horvath, J. & Propper, M. (2017). Gender differences in the case of Work Satisfaction and Motivation. *Polish Journal of Management Studies*, 16 (1), 215-225.
- Strauss, K., Parker, S.K. & O'Shea, D. (2017). When does proactivity have a cost? Motivation at work moderates the effects of proactive work behavior on employee job strain. *Journal of Vocational Behavior*, 100, 15-26.
- Trapp, J.K. & Kehr, H.M. (2016). How the influence of the implicit power motive on negotiation performance can be neutralized by a conflicting explicit affiliation motive. *Personality and Individual Differences*, 94, 159-162.
- Tseng, L. & Kuo, C. (2013). Customers' attitudes toward insurance frauds: an application of Adams' equity theory. *International Journal of Social Economics*, 41(11), 1038-1054.
- Vroom, V. (1964). *Work and motivation*. New York City, NY: John Wiley and Sons.
- World Economic Forum (WEF) (2018). *The Future of Jobs Report*. (Online). [Available at: [WEF_Future_of_Jobs_2018.pdf \(weforum.org\)](https://www.weforum.org/reports/the-future-of-jobs-report-2018)].
- Warnich, S., Carrell, M.R., Elbert, N.F. & Hatfield, R.D. (2015). *Human Resource Management in South Africa*, 5th Edition. Cape Town: CENGAGE Learning.

SSIRC 2023-052**A REVIEW STUDY ON ALTERNATIVE MANAGEMENT METHODS TO SUSTAIN MEDICINAL PLANTS IN SOUTH AFRICA****N.F. Shibambu**

University of Limpopo, South Africa

ABSTRACT

The use of indigenous medicinal plants is still prevalent as the most trusted form of health care, predominantly in developing countries. Overuse of medicinal plant resources, coupled with the negative impacts of unpredictable rainfall and rising temperatures, necessitated the development of local methods to manage medicinal plants. These indigenous management methods have proved to be failing and aggravating threats to medicinal plants. This study aimed to review the alternative management and management methods to protect medicinal plants in South Africa. A review of literature presents in situ, ex situ, natural reserves, wild nurseries, botanical gardens, and seed banks as alternative management methods proposed and used by scientists to manage and manage medicinal plant species. These methods are western practices introduced to local communities to manage and protect the indigenous medicinal plant species for future use and as a cultural heritage. From a qualitative standpoint, this study adopted the interpretivist research design to offer support to employed systematic review method. Seminal studies on this subject were purposively collected using keywords extracted from the research topic. The collected data was analysed using the inductive Textual Content Analysis (TCA) method. The results of this study reveal that there are various management methods that implemented as strategies to safeguard the existing medicinal plants, and this proves if these methods are implemented correctly, these plants will still be available for future use. It is concluded and recommended that the demand of medicinal plants impose huge threats to their anticipated availabilities, therefore, relevant stakeholders need to take urgent corrective measures and necessary precautions while harvesting them and prevent illegal invasion. Equally, the concerned parties should be consistently exposed to the improved resources, advanced training and better education about the benefits and importance of these plants.

KEYWORDS: medicinal plants, management method, in situ, ex situ, natural resource**1. INTRODUCTION**

Medicinal plants are essential resources and have always been used for the purposes of food and primary healthcare around the world, some of the medicinal plants are recommended for their therapeutic values (Hassan, 2012). In most developing countries which include South Africa, medicinal plants and the entire traditional medicine system play an imperative role in the healthcare system (Van Wyka & Prinsloo, 2018). Herbal medicines and their preparations have been used for thousands of years throughout the world, both developing countries such as South Africa and developed countries such Canada rely on herbal medicine (Mabogo, 1990 and Keskin, 2018). It is predictable that about 15,000 medicinal plants are under threat of extinction around the world (Chen

et al., 2016). An extremely estimated conservative measures present that the current loss of medicinal plant is between 100 and 1000 times higher than what is usually expected on the ordinary extinction rate and that the world is losing at least one of the prospective most important drugs in every 2 years (Chen *et al.*, 2016). Proper management and management strategies of these plants are thus important for their continued convenience (Stern *et al.* 2000). However, the ineffective management of biodiversity leads to the destruction of resources, which in turn is essential for the survival of people (Steenkamp, 2002).

According to the International Union for Management of Nature and the World Wildlife Fund (IUCNWWF), there are between 50,000 to 80,000 flowering plant species used for medical purposes worldwide (Chen *et al.*, 2016). Among these, approximately 15,000 species are under threat with extinction from improper harvesting and habitation destruction and 20% of their wild properties have already been almost exhausted with the growth of human population and consumption of these plants (Chen *et al.*, 2016). The preservation and maintainable use of medicinal plants have been studied comprehensively (Uprety *et al.*, 2012). Additionally, the Department of Environmental Affairs (DEA) requested the South African National Biodiversity Institute (SANBI) to establish a common Biodiversity Management Plan, this was approved by the 15th of January 2015, the protection and safeguarding of these plants is in alongside Section 43 of the National Environmental Management: Biodiversity Act (NEMBA) ((No. 10 of 2004), as well as the principles for the Biodiversity Management Plans for Species (BMPS) (Shibambu *et al.* 2021). For medicinal plants with progressively restricted materials, ecological use of wild resources can be an effective preservation substitute (Chen *et al.*, 2016).

Further, overuse of medicinal plant resources, together with the negative impacts of urbanisation, habitat loss, population increase, improper harvesting, climate change, unpredictable rainfall, and rising temperatures, necessitate the development of local methods to manage medicinal plants. To address the mentioned negative impacts, knowledge, and skills about the management and management of biodiversity are required (Martin, 1995). Like in many other countries around the world, South Africa's indigenous plant systems are depleting while in fact good management, as well as investing in management of plants is necessary (Martin, 1995). This initiative can improve the medicinal plants across the country (Mabogo, 1990; Rankoana, 2000; and Rankoana 2001). Preservation of plants in South Africa used to be based on a law enforcement approach, until recently; and now that it is increasingly evident that the used approach was not effective, new management methods are needed (Moeng, 2010). Although some factors that endanger medicinal plants cannot be stopped, people should ensure that management methods are properly executed to preserve all medicinal species in an area where they can be found when needed (Shibambu *et al.*, 2021).

2. LITERATURE REVIEW

2.1 Strategic management methods to safeguard medicinal.

The significant part of plants survival is influenced by the survival of people, this was observed through the beginning of the ecology up to its preservation (Van Wyka & Prinsloo, 2018). Management of plants is aimed at supporting the sustainable development of natural resources that are implemented to preserve and protect these medicinal plants through employing in methods that do not put danger in the existence and availability of medicinal plants or methods that do not destroy the important habitats and ecosystem up until where they come into extinct (Kasagana & Karumuri, 2011). Additionally, gatherers of medicinal plant utilise different methods of harvesting of which some threaten the future existence of medicinal plants and some of these methods are safe for the survival of medicinal plants, the methods include removing parts of the bulk, collection of roots, bulb, uprooting the whole plant, and cutting stems and leaves off (Rasethe *et al.* 2019). When plant gatherers are collecting the large quantities of medicinal plants of management concern, they use those harvesting methods and, in some cases, they use methods of collection that are illegal in protected areas, and they critically place the ecosystems in danger (Rasethe *et al.* 2019). The targeted population of medicinal plants is rapidly declining, and most of them are facing extinction without their therapeutic potential being fulfilled (Rasethe *et al.* 2019). Management methods used to protect plant genetic resources have been realised previously as a fundamental factor of biodiversity management (Shibambu *et al.* 2021).

Moreover, the 'In-Situ and Ex-Situ' managements are the two main methods for management of indigenous plant species (Kasagana & Karumuri, 2011). According to Kasagana and Karumuri (2011), in South Africa, law enforcement approach was used for management of medicinal plants, however, the approach has evidently been unsuccessful and new effective and participatory methods are needed to protect medicinal plants. To answer to the overexploitation and threat of natural resources such as medicinal plants, numerous efforts have been implemented of late to manage the multiplicity of medicinal plants (Moeng & Potgieter, 2011). Moeng and Potgieter (2011) highlight that Community-Based Natural Resources Management (CBNRM) is responsible for the management of medicinal plant.

The availability and survival of medicinal plants is mostly determined after harvesting these plants (Van Wyka & Prinsloo, 2018). The plant generally dies and faces extinction when the bark, roots or the entire parts of the plant are harvested (Van Wyka & Prinsloo, 2018). The gathering of leaves, flowers, fruits, and seeds are considered less damaging; however, severe pruning affects a plant's dynamism and reproductive potential and their future existence (Van Wyka & Prinsloo, 2018). Sustainability of the harvesting rate is categorised by plants that are being harvested, for instance, the kind of the plants or parts of the plants that are collected, their fruitfulness and growth rates (Van Wyka & Prinsloo, 2018). However, natural reserves and wild nurseries are good examples to retain the medical effectiveness of plants in their natural environments, while botanic gardens and seed banks are essential exemplars for ex situ management and future replanting (Chen Chen *et al.* 2016). The natural habitat and organic features of medicinal plants must be known for the purposes

of guiding management practices, for example, to assess whether species management should take place in its natural environment or can be taken to nursery (Chen Chen *et al.* 2016).

2.2.1 In situ management

Most of the common medicinal plants that are found in South Africa are reported to be endemic in nature and medical features due to the secondary metabolites that exist when they react to inducements from the natural environment (Chen *et al.* 2016). The in-situ management methods in an entire communities allow us to safeguard the medicinal plants and protect the natural communities, together with the complex relation that exists between them (Gepts, 2006). Moreover, it is proven that in situ management can increase the quantity of diversity that can be protected, and it can give strength of the relationship between medicinal protection and their sustainable use (Forest *et al.* 2007). In situ management have showed exertions on a world range that were focused on instituting the management areas and taking a view that is ecosystem-oriented, instead of species-oriented (Ma *et al.* 2012). In situ management that are effective are channelled by set of rules, regulations, and potential compliance of medicinal plants within the area (Volis & Blecher, 2010).

2.2.2 Natural reserves

One of the key causes of medicinal plants extinction or scarcity is the degradation and destruction of natural resources (Camm *et al.* 2002). Natural reserves are conservative areas that are implements to safeguard the essential medicinal plants that still exist in South Africa (Rodríguez *et al.* 2007). For the natural reserves to be able to know which key natural habitats of medicinal plants to safeguard necessitates evaluating the impact and ecological unit purposes in relation to human beings (Liu *et al.* 2001).

2.2.3 Wild nurseries

Due to cost considerations and the amount of land coverage, it may not be true to consider a natural wild plant environment to be an area that is protected (Kramer *et al.* 2009). A wild nursery is a convenient area for plant-oriented nurturing and domestication of plant species that are assumed to be under threat in a protected environment, natural environment, or an area that is not far from where medicinal plants naturally breed (Chen *et al.* 2016). Even though the populations of medicinal plants are under threat due to over exploitation, urbanisation, habitation dreadful conditions, climate change, and invasive species, amongst others, wild nurseries are meant to offer an in-effect method for in situ management of medicinal plants that are common or widespread, under threat, endangered, and in high demand (Liu *et al.* 2011).

2.2.4 Ex situ management

Ex situ management is not obviously distinguished from in situ management; however, it is still in effect, particularly for the medicinal plants that are damaged and endangered with low level of growth, scarce, and high susceptibility to replanting (Yu, 2010). The main aim of ex situ management is to nurture and naturalise threatened medicinal plant species to ensure that they continue to survive and occasionally to produce huge amounts of planting methods used to create

medicine, and action is often taken immediately to safeguard medicinal plant resources (Swarts *et al.* 2009). Furthermore, majority of medicinal plant species from the previous wild can preserve high influence when grown in protected areas that are far away from the areas where they naturally grow from, moreover, they can also have their reproductive resources taken and be stored in management areas such as seed banks for them to be replanted in future (Chen *et al.* 2016).

2.2.5 Botanic gardens

Botanic gardens are part of ex situ management, and they execute an essential role to, and they are used to uphold the ecological unit to improve the existence of scarce and threatened medicinal plant species (Chen *et al.* 2016). Even though the existing collections normally contain of merely a limited characters of each plant species and so are of restricted practice in terms of genetic safeguarding, botanic gardens have numerous exclusive characteristics (Yuan, 2010). They are made up of an extensive diversity of medicinal plants that are developed together under mutual circumstances, and frequently contain taxonomically and organically different flora (Yuan, 2010). Botanic gardens can further contribute to the management of medicinal plant over developing breeding and crop growing protocols, along with using programmes of nurturing and diversity breeding (Maunder *et al.* 2001).

2.2.6 Seed banks

Seed banks are seen to be an improved method to store the hereditary variety of most of the medicinal plants ex situ management as related to botanic gardens, and they are suggested to assist safeguard the organic and hereditary features of plant species (Li, 2009). Additionally, seed banks permit comparatively speedy access to sample of plants to assess of their features, contributing effective data for safeguarding the remaining population of plant species (Li, 2009). The difficult duties of seed banking are how to reinstate the plant back to its original environment of the wild and how to successfully help in the restoration of wild inhabitants of species (Chen *et al.* 2016).

3. RESEARCH DESIGN AND METHODOLOGY

From a qualitative standpoint, this study adopted the interpretivist research design to offer support to employed systematic review method. Dan (2017) presents that the research design is intended to evaluation the improvement in a specific research field [A review research on management strategies methods to protect medicinal plants in South Africa]. Moreover, the aim of this research design is to recognise, assess and sum up the outcomes of the reviewed research studies by making existing data more reachable to policymakers (Yannascoli, Schenker & Baldwin, 2013 and Bwanga, 2020).

In this study, the researcher adopted purposive sampling technique. In purposive sampling technique, the researcher can be influenced by their own judgment when selecting participants of the study. When the researcher relies on their own judgement, choosing elements of the sample is called a non-probability sampling method or purposive sampling. Researchers often have faith that they can gain an illustrative sample by using a sound judgment, which will result in saving time and money. Seminal studies on this subject were purposively collected using keywords extracted from the research topic. Only sources of high academic standing, with integrated ideas, and not

separate writings on this topic were reviewed. The reviewed documentary studies were demarcated to recent studies [Not older than 15 years, other considered studies outside this projection provided greater significance to the research topic] to offer relevance and trustworthiness. Again, the researcher used Textual Content Analysis (TCA) to analyse consulted textual materials and to collect and categorise relevant data on this subject. Starkings (2012) along with Matthews and Ross (2010) mention that to achieve TCA, documents are something more than just a source of data since it is possible to research documents as a 'field' of research.

4. FINDINGS AND DISCUSSION

4.1 The Identification of Study Themes and Challenges

4.1.1 Strategic management methods to safeguard medicinal.

- **Overexploitation-** To answer to the overexploitation and threat of natural resources such as medicinal plants, numerous efforts have been implemented of late to manage the multiplicity of medicinal plants (Moeng & Potgieter, 2011).
- **Genetic variety-** Seed banks are seen to be a better way to store the genetic variety of majority of the medicinal plants *ex situ* management as compared to botanic gardens, and they are recommended to assist safeguard the biological and genetic features of plant species (Li, 2009).
- **Original environment-** The difficult duties of seed banking are how to reinstate the plant back to its original environment of the wild and how to effectively help in the restoration of wild population of species (Chen *et al.* 2016).

4.2 Factor that Endanger Medicinal Plants

It is stated in section 2.1 of this study that the availability and survival of medicinal plants are mostly determined after harvesting these plants (Van Wyka & Prinsloo, 2018). As presented in section 2.1 of this study, gatherers of medicinal plant utilise different methods of harvesting of which some threaten the future existence of medicinal plants and some of these methods are safe for the survival of medicinal plants, the methods include removing parts of the bulk, collection of roots, bulb, uprooting the whole plant, and cutting stems and leaves off (Rasethe *et al.* 2019). In section 2.1 of this study, it is confirmed that the plant generally dies and faces extinction when the bark, roots or the entire parts of the plant are harvested (Van Wyka & Prinsloo, 2018). Continually, it is stated in section 2.1 of this study that the gathering of leaves, flowers, fruits, and seeds are considered less damaging; however, severe pruning affects a plant's dynamism and reproductive potential and their future existence (Van Wyka & Prinsloo, 2018).

Moreover, in section 2.1 of this study it is stated that plants management is aimed at supporting the sustainable development of natural resources that are implemented in order to preserve and protect these medicinal plants through employing methods that do not put danger in the existence and availability of medicinal plants or methods that do not destroy the important habitants and ecosystem up until where they come into extinct (Kasagana & Karumuri, 2011). In section 1 of this study, it is argued that although some factors that endanger medicinal plants cannot be stopped,

people should ensure that management methods are properly executed to preserve all medicinal species in an area where they can be found when needed (Shibambu *et al.* 2021).

4.3 Strategic management methods to safeguard medicinal.

The data that are presented in section 1 and section 2.1 of this study present the methods that are used to safeguard medicinal plants and their effectiveness in South Africa. It is presented in section 1 of this study that medicinal plants are essential resources and have always been used for the purposes of food and primary healthcare around the world, some of the medicinal plants are recommended for their therapeutic values (Hassan, 2012). In section 1 of this study, it is also supported that medicinal plants are globally valuable sources of herbal products and are disappearing at a high speed (Chen *et al.* 2016). Continually, data presented in section 1 of this study indicate that it is predictable that about 15,000 medicinal plants are under threat of extinction around the world (Chen *et al.* 2016). Furthermore, an extremely estimated conservative measures present that the current loss of medicinal plant is between 100 and 1000 times higher than what is usually expected on the ordinary extinction rate and that the world is losing at least one of the prospective most important drugs in every 2 years as stated in section 1 of this study (Chen *et al.* 2016).

4.4 Management methods in South Africa

Moreover, in section 1 of this study, it is stated that herbal medicines and their preparations have been used for thousands of years throughout the world, both developing countries such as South Africa and developed countries such as Canada rely on herbal medicine (Czech *et al.* 2000; Mabogo, 1990; and Keskin, 2018). The data presented in section 1 confirm that proper management strategies of these plants are thus important for their continued convenience (Stern *et al.* 2000). It is also stated in section 1 of this study that the ineffective management of biodiversity leads to the destruction of resources, which in turn is essential for the survival of people (Steenkamp, 2002). It is substantiated in section 1 of this study that to address the mentioned negative, knowledge, and skills about the management and management of biodiversity are required (Martin, 1995). Again, it is stated in section 1 of this study that like in many other countries around the world, South Africa's indigenous plant systems are depleting while in fact good management and investing in management of plants are necessary (Martin, 1995).

Additionally, it is mentioned in section 1 of this study that management of biodiversity in South Africa used to be based on a law enforcement approach, until recently, now that it is increasingly evident that the used approach was not effective new management methods are needed (Moeng, 2010). In support it is also stated in section 2.1 of this study that in South Africa law enforcement approach was used for management of medicinal plants, however, the approach has evidently been unsuccessful and that new, effective, and participatory methods are needed to protect medicinal plants (Kasagana & Karumuri 2011). However, it is stated in section 2.1 of this study that to answer to the overexploitation and threat of natural resources such as medicinal plants, numerous efforts have been implemented as of late to manage the multiplicity of medicinal plants (Moeng &

Potgieter, 2011). In addition, it is highlighted that the CBNRM is responsible for the management of medicinal plant (Moeng & Potgieter, 2011).

4.5 In-Situ and Ex-Situ' management methods

Moreover, it is presented in section 2.1 that the 'In-Situ and Ex-Situ' management are the two main methods for management of indigenous plant species (Kasagana & Karumuri, 2011). Additionally, it is stated in section 2.1 of this study that the sustainability of the harvesting rate is categorised by plants that are being harvested, for instance, the kind of the plants or parts of the plants that are collected, their fruitfulness and growth rates (Van Wyka & Prinsloo, 2018). In confirmation, it is stated in section 2.1 of this study that natural reserves and wild nurseries are good examples to retain the medical effectiveness of plants in their natural environments, while botanic gardens and seed banks are essential exemplars for ex situ management and future replanting (Chen et al, 2016). Hence it is stated in section 2.1 of this study that the natural habitat and organic features of medicinal plants must be known for the purposes of guiding management practices, for example, to assess whether species management should take place in its natural environment or can be taken to nursery (Chen *et al.* 2016).

Besides, section 2.1.1 of this study states that most of the common medicinal plants that are found in South Africa are reported to be endemic in nature and medical features due to the secondary metabolites that exist when they react to inducements from the natural environment (Chen *et al.* 2016). It is also described in section 2.1.1 of this study that the in-situ management methods in an entire communities allow us to safeguard the medicinal plants and protect the natural communities, together with the complex relation that exists between them (Gepts, 2006). It is further presented in section 2.1.1 of this study that in situ management have showed efforts on a world range that were focused on establishing the management areas and taking a view that is ecosystem-oriented, instead of species-oriented (Ma et al, 2012). It is also presented in section 2.1.2 of this study that natural reserves are conservative areas that are implements to safeguard the essential medicinal plants that still exist in South Africa (Rodríguez *et al.* 2007). Hence, it is mentioned in section 2.1.2 of this study that for the natural reserves to be able to know which key natural habitats of medicinal plants to safeguard require assessing the impact and ecosystem functions human beings (Liu *et al.* 2001).

Also, it is presented in section 2.1.3 that it is impossible to consider each natural wild plant environment to be a protected area, due to cost contemplations and amount of the land used (Kramer *et al.* 2009). Considerably, in section 2.1.3 of this study, it is described that a wild nursery is an established area for species-oriented nurturing and domesticating of medicinal plants that are viewed to be under a certain threat to be in a protected area, natural environment, or an area that is not far from where medicinal plants naturally grow (Chen *et al.* 2016). It is also mentioned in section 2.1.3 of this study that even though the populations of medicinal plants are under threat because of overexploitation, urbanisation, habitat degradation, climate change and invasive species amongst others, wild nurseries are meant to provide an effective tactic for in situ management of medicinal plants that are endemic, under threat, endangered, and in high demand (Liu *et al.* 2011).

Moreover, in section 2.1.4 of this study it is clearly stated that ex situ management is not usually clearly differentiated from in situ management, however, it is its effective, especially for the medicinal plants that are overexploited and under threat with low level of growth, scarce, and high susceptibility to replanting diseases (Yu, 2010). Again, it is stated in section 2.1.4 of this study that the main aim of ex situ management is to cultivate and naturalise endangered medicinal plant species to ensure that they continue to survive and sometimes to produce large amounts of planting material used to create medicine, and action is often taken immediately to safeguard medicinal plant resources (Swarts *et al.* 2009). Majority of medicinal plant species from the previous wild can preserve high influence when grown in protected areas that are far away from the areas where they naturally grow from, moreover, they can also have their reproductive resources taken and be stored in management areas such as seed banks for them to be replanted in future as it is stated in section 2.1.4 of this study (Chen *et al.* 2016).

Generally, as stated in section 2.1.5 of this study, botanic gardens are part of ex situ management, and they execute an essential role to and maintain the ecological unit to improve the survival of scarce and endangered medicinal plant species (Chen *et al.* 2016). As presented in section 2.1.5 of this study, botanic gardens can further play a role in the management of medicinal plant through developing propagation and cultivation protocols, along with using programmes of nurturing and diversity breeding (Maunder *et al.* 2001)

4.6 Role played by seed banks.

Finally, as presented in section 2.1.6 of this study, seed banks are seen to be a better way to store the genetic variety of majority of the medicinal plants ex situ management as compared to botanic gardens, and they are recommended to assist safeguard the biological and genetic features of plant species (Li, 2009). Continually, it is stated in section 2.1.6 of this study that seed banks allow comparatively quick access to sample of plants to evaluate of their features, contributing effective data for safeguarding the remaining population of plan species (Li, 2009). It is also mentioned in section 2.1.6 of this study that the difficult duties of seed banking are how to reinstate the plant back to its original environment of the wild and how to effectively help in the restoration of wild population of species (Chen *et al.* 2016).

5. STUDY CONCLUSIONS AND RECOMMENDATIONS

The aim of this study was to review strategic management methods to safeguard medicinal in South Africa. From this study's main aim, it was witnessed that in South Africa there are various methods of medicinal plants management that are being put into place, consequently leading to sustainability of these plants. The study reviewed six management methods that are used in South Africa. According to the findings of this study, there are various factors that leads to the need of safeguarding medicinal plants which include overexploitation, invention of species, urbanisation, habitat degradation, climate change, amongst others. The results of this study reveal that there are various alternative management and management methods to sustain medicinal plants in South Africa, and this proves that when these methods are implemented correctly these plants will still be available for future use. Moreover, most medicinal plant species from the previous wild can retain

high influence when grown in protected areas that are far away from the areas where they grow naturally.

Equally, the relevant stakeholders should be consistently exposed to the improved resources, advanced training and better education about the benefits and importance of these plants. Although institutions such as the CBNRM are introduced for the protection and preservation medicinal plants, they are not always effective and successful in protecting some medicinal plants, therefore, the protections and preservations of the witnessed overexploitation and threat of natural resources such as medicinal plants; numerous efforts have been implemented lately to manage the multiplicity of medicinal plants. Therefore, the CBNRM is currently responsible for the management of these plant, this reads with the assertions made by Moeng and Potgieter (2011) in section 2.3 of this study. Overall, the issue of extinction of medicinal plants is recognised as a major problem in South Africa and management methods should be utilised accordingly with urgency.

In Conclusion, the purpose of this study was to review strategic management methods to safeguard medicinal in South Africa. The issue of safeguarding medicinal plants should be treated with urgency, and it is proven that South Africa do have existing management methods that help safeguard medicinal plants. Importantly, the recommendations are provided in the following section for possible implementations thereof.

5.1 Study recommendations

This study can be used as a director to educate relevant stakeholders on what kind of management methods are being used and that can be used going forward about safeguarding medicinal plants for their future use. Furthermore, research studies could be done relating in this study area to ensure triangulation as a method of reliability. For the purposes of good practices to ensure that management methods are utilised accordingly so that medicinal plants are preserved and protected, this study recommends the following, as illustrated in tables 1 of this study.

Table 1. Recommendations to improve study aim and the identified themes and challenges.

| No | Identified themes and challenges | Recommendations |
|----|----------------------------------|---|
| | Study aim | Strategic management methods to safeguard medicinal plants |
| 1 | Overexploitation | It is seen from this study that overexploitation is a major concern in the availability of medicinal plants; therefore, this study recommends that the reviewed methods to safeguard medicinal plants should be properly implemented. |
| 2 | Genetic variety | This study recommends that genetic variety of medicinal plants should be identified to have effectively manage medicinal plants while using the reviewed methods to safeguard medicinal plants. |

| No | Identified themes and challenges | Recommendations |
|----|----------------------------------|--|
| | Study aim | Strategic management methods to safeguard medicinal plants |
| 3 | Original environment | It is recommended from this study that management areas should consider the distance between the original environment of the medicinal plants and the management area. |

Source: Researcher's illustrations (2023)

REFERENCES

- Bwanga, O. (2020). How to conduct a qualitative systematic review to guide evidence-based practice in Radiography. *International Journal of Sciences: Basic and Applied Research*, 52(1), 205-213.
- Camm, J. D., Norman, S. K., Polasky, S., & Solow, A. R. (2002). Nature reserve site selection to maximize expected species covered. *Operations Research*, 50(6), 946-955.
- Chen, S. L., Yu, H., Luo, H. M., Wu, Q., Li, C. F., & Steinmetz, A. (2016). Management and sustainable use of medicinal plants: problems, progress, and prospects. *Chinese medicine*, 11(1), 1-10.
- Czech, B., Devers, P. K., & Krausman, P. R. (2001). The relationship of gender to species management attitudes. *Wildlife Society Bulletin*, 187-194.
- Dan, V. (2017). Preserving the evolutionary potential of floras in biodiversity hotspots. *Nature*, 445(7129), 757-760.
- Gepts, P. (2006). Plant genetic resources management and utilization: the accomplishments and future of a societal insurance policy. *Crop science*, 46(5), 2278-2292.
- Hassan, B. A. R. (2012). Medicinal plants (importance and uses). *Pharmaceut Anal Acta*, 3(10), 2153-435.
- Keskin, C. (2018). Medicinal plants and their traditional uses. *Journal of Advances in Plant Biology*, 1 (2), 8-12.
- Kramer, A.T., & Kayri, H. (2009). Plant management genetics in a changing world. *Trends in plant science* 14(11), 599-607.
- Li, D. Z., & Pritchard, H. W. (2009). The science and economics of ex situ plant management. *Trends in plant science*, 14(11), 614-621.
- Liu, C., Hua, Y., & Chen, S. (2011). Framework for sustainable use of medicinal plants in China. *Zhi Wu Fen Lei Yu Zi Yuan Xue Bao*, 33(1), 65-68.
- Liu, J., Linderman, M., Ouyang, Z., An, L., Yang, J., & Zhang, H. (2001). Ecological degradation in protected areas: the case of Wolong Nature Reserve for giant pandas. *Science*, 292(5514), 98-101.

- Ma, J., Rong, K., & Cheng, K. (2012). Research and practice on biodiversity in situ management in China: progress and prospect. *Biodiversity Science*, 20(5), 551-558.
- Mabogo, D. E. N. (1990). The ethnobotany of the VhaVenda [MSc dissertation]. *Pretoria: University of Pretoria*.
- Maluleke, W., & Shibambu, N. F. (2021). Exploring illegal harvesting and theft of the selected South African endangered indigenous plants on the red data list: Case studies of rural areas. *ADRRRI Journal of Arts and Social Sciences*, 18(3 (6) October-December), 244-295.
- Martin, G. J. (1995). *Ethnobotany: a methods manual*, Chapman y Hall. *Nowy Jork*.
- Matthews, R., & Ross, E. (2010). *Research methods: A practical guide for the social sciences*. Pearson Education Ltd.
- Maunder, M., Higgens, S., & Culham, A. (2001). The effectiveness of botanic garden collections in supporting plant management: a European case study. *Biodiversity & Management*, 10(3), 383-401.
- Moeng, E.T., & Potgieter, M. J. (2011). The trade of medicinal plants by muthi shops and street vendors in the Limpopo Province, South Africa. *Journal of Medicinal Plants Research*, 5(4), 558-564.
- Moeng, T. E. (2010). *An investigation into the trade of medicinal plants by muthi shops and street vendors in the Limpopo province, South Africa* (Doctoral dissertation).
- Pimm, S. L., Russell, G. J., Gittleman, J. L., & Brooks, T. M. (1995). The future of biodiversity. *Science*, 269(5222), 347-350.
- Rankoana, S. A. (2000). *Aspects of the ethnobotany of the Dikgale community in the Northern Province* (Doctoral dissertation, University of the North).
- Rankoana, S. A. (2001). Plant-based medicines of the Dikgale of the Northern Province. *South African Journal of Ethnology*, 24(3), 99-108.
- Rasethe, M. T., Semanya, S. S., & Maroyi, A. (2019). Medicinal plants traded in informal herbal medicine markets of the Limpopo Province, South Africa. *Evidence-Based Complementary and Alternative Medicine*, 2019.
- Rodríguez, J. P., Brotons, L., Bustamante, J., & Seoane, J. (2007). The application of predictive modelling of species distribution to biodiversity management. *Diversity and Distributions*, 13(3), 243-251.
- Starkings, S. (2012). *Quantitative data analysis with IBM SPSS 17, 18 & 19: a guide for social scientists* by Alan Bryman and Duncan Cramer.
- Stenkamp, Y. (2002). *The concept of Endemicism and the management of plant diversity impact*. Impact Printers: Pamsgale.
- Stern, KR, Bidlack, J,E, Jansky, S & Uno, G. (2000). *Introductory plant biology*. California State University-Chico: New York.

Swarts, N. D., & Dixon, K. W. (2009). Terrestrial orchid management in the age of extinction. *Annals of botany*, 104(3), 543-556.

Uprety, Y., Asselin, H., Dhakal, A. and Julien, N., (2012). Traditional use of medicinal plants in the boreal forest of Canada: review and perspectives. *Journal of ethnobiology and ethnomedicine*, 8(1), pp.1-14.

Van Wyk, A. S., & Prinsloo, G. (2018). Medicinal plant harvesting, sustainability and cultivation in South Africa. *Biological Management*, 227(1), 335-342.

Volis, S. and Blecher, M., (2010). Quasi in situ: a bridge between ex situ and in situ management of plants. *Biodiversity and management*, 19(9), pp.2441-2454.

Yannascoli, S. M., Schenker, M. L., Carey, J. L., Ahn, J., & Baldwin, K. D. (2013). How to write a systematic review: A step-by-step guide. *University of Pennsylvania Orthopaedic Journal*, 23(1), 64-69.

Yuan, Q. J., Zhang, Z. Y., Hu, J., Guo, L. P., Shao, A. J., & Huang, L. Q. (2010). Impacts of recent cultivation on genetic diversity pattern of a medicinal plant, *Scutellaria baicalensis* (Lamiaceae). *BMC genetics*, 11(1), 1-13.

Yu, H., Xie, C., Song, J., Zhou, Y., & Chen, S. (2010). TCMGIS-II based prediction of medicinal plant distribution for management planning: a case study of *Rheum tanguticum*. *Chinese Medicine*, 5, 1-9.

Zerabruk, S., & Yirga, G. (2012). Traditional knowledge of medicinal plants in Gindeberet district, Western Ethiopia. *South African Journal of Botany*, 78(1), 165-169.

SSIRC 2023-056

THE INFLUENCE OF SUPPLY CHAIN FLEXIBILITY ON RESILIENCE AND COMPETITIVE ADVANTAGE IN THE CONSUMER ELECTRONICS INDUSTRY

W.V.L. Okoumba

Vaal University of Technology, South Africa

C. Mafini

Vaal University of Technology, South Africa

ABSTRACT

The South African consumer electronics industry is one of the most important economic sectors in the country. However, it faces numerous constraints in the areas of stakeholder communication, capacity utilisation, industry segmentation, and import procedures, to name a few. The aim of the study is to test the connection between supply chain flexibility, responsiveness, and firm competitive advantage in the consumer electronics industry in South Africa. The study followed a quantitative method involving a survey of 195 randomly selected supply chain professionals drawn from consumer electronics firms operating in Gauteng province. The collected data were analysed using the structural equation modelling procedure to test the hypothesised relationships. Distribution flexibility and information systems flexibility predicted both supply chain responsiveness and firm competitive advantage. Supply chain responsiveness, in turn, predicted firm competitive advantage. The study proposes reengineering organisational processes by adopting more flexible supply chain practices in the areas of distribution and information systems as approaches to improve the resilience and competitiveness of consumer electronics firms and supply chains.

Keywords: Sourcing flexibility; distribution flexibility; information system flexibility; supply chain responsiveness; firm competitive performance; South African consumer electronics goods

1. INTRODUCTION

The South African consumer electronics industry is one of the most important economic sectors in the country; and amongst the largest on the continent (Mostert, Niemann & Kotzé, 2017). The industry is credited with the production and retail of various products ranging from household appliances, electronic or electrical machinery and telecommunication equipment and tools. Besides, other products manufactured and traded include generators, lighting equipment, wires, electrical motors and insulators, light bulbs, and distribution equipment. Some of the products are targeted towards the automotive, railways, power generation, transmission, and aerospace sectors (Statistics South Africa, 2018). Some of the notable brands available in the industry include Whirlpool, Defy, Samsung, LG Electronics, Hisense, Sinotec and Univa, (Department of Trade and Industry South

Africa, 2020). The industry is the favourite category of online shoppers, which shows its significance as an attractive investment destination (Deloitte Digital, 2021).

The consumer electronics industry is not immune to challenges faced by other sectors. Some of these setbacks include communication challenges with stakeholders, poor capacity utilisation and industry segmentation, stringent customs procedures, geographic access to major target markets, slow responsiveness to technological advancements, inadequate market intelligence, and ineffective adaptability to global market trends, to name a few (Park, 2016). As a response to these challenges, the study proposes restructuring the firms' operation processes by adopting more flexible supply chain practices in the areas of sourcing, distribution, and information systems. The study proposes that the attainment of flexible supply chain management (SCM) could boost the sector's resilience, culminating in competitive advantages.

2. LITERATURE REVIEW

2.1. Supply chain flexibility practices

The importance of supply chain flexibility (SCF) practices and their strategic relevance to organisational performance has been well-documented (Chirra & Kumar, 2018; Chandak, Chandak & Dalpati, 2019). SCF may be defined as a firm's ability and capability to adjust its value chain network operation to swiftly respond and react to expected changes or risks emanating from uncertain market demands (Singh, Modgil & Acharya, 2019). It is a multifaceted construct which has dimensions related to all organisational levels, such as operational, strategic, and tactical flexibilities (Singh, Modgil & Acharya, 2019). Other flexibility dimensions include inbound and outbound logistics processes, distribution flexibility (DF), information system flexibility (ISF), information technology flexibility, sourcing flexibility (SF), and external flexibility (Chan et al., 2017; Sandeepa & Chand, 2018). The current study focuses on SF, DF and ISF dimensions, based on their strategic nature as key determinant factors of SCR (Tang 2006; Tang & Tomlin, 2008). Studies by Colicchia, Dallari and Melacini (2010) and Yang and Yang (2010) found these three dimensions to be drivers of SCR.

SF refers to the ability to organise and avail resources and materials to respond better to volatile firms' purchasing and procurement requirements (Swafford, Ghosh & Murthy, 2006). Effective sourcing adaptability results in the improved performance of a business's supply chain activities. (Chopra & Meindl, 2016; Delic & Eysers 2020).

DF refers to a firm's capability to cope with changes in market conditions related to its distribution operations, allowing firms to offer agile services in response to customers' sudden changes in requirements (Ge, Xu, Liu, Gu & Li, 2019). DF plays a strategic role in optimising responsiveness and customer satisfaction (Snoeck & Winkenbach, 2020). This outcome is achievable by improving the speed of delivery and quality of the service rendered.

ISF can be defined as the flexibility of a firm's information system to adjust and control changes taking place in its environment (Gebauer & Schober, 2006). Information systems which are

characterised by a great degree of flexibility provide adequate support for operational functions, such as procurement, logistics and warehousing, to name a few (Nandakumar, Jharkharia & Nair, 2014).

2.2. Supply chain resilience

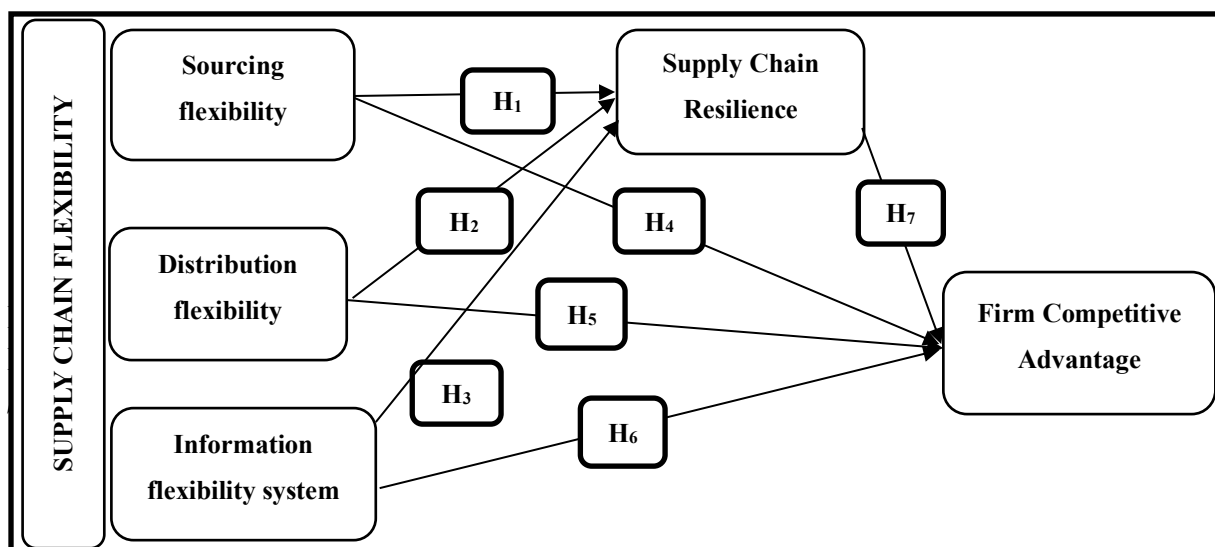
SCR is regarded as a business’s capability to prepare, adjust, adapt and develop responsive strategies designed to minimise the adverse effects of turbulence and unexcepted changes in a supply chain ecosystem (Ponomarov & Holcomb, 2009). It is characterised by proactive strategies to equip firms to counteract markets’ imbalance and incidents (Colicchia & Strozzi, 2012). Resilient value and supply chain networks enable the reduction of operational bottlenecks and maintain performance outcomes at a desired level (Mohammed, Yazdani, Oukil & Gonzalez, 2021).

2.3. Firm competitive advantage

FCP refers to the ability to attain a significant level of performance by outperforming its counterparts based on its key performance indicators (Porter, 1998). Firms which can demonstrate a sustainable level of competitive edge are well-equipped to maintain their competitive trajectory and success over a sustained period (Covin & Lumpkin, 2011). Such a degree of competitive consistency is essential in ensuring competitive excellence and increased productivity and profitability of the firm’s supply chain network; in the process reinforcing its market-leading status (Pratono, Darmasetiawan, Yudianto & Jeong, 2019).

3. CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

The conceptual model of the study is presented in Figure 1 and comprises three predictors (sourcing flexibility, distribution flexibility and information system flexibility), one mediating construct (supply chain resilience) and an outcome construct (firm competitive advantage).



Empirical evidence in several studies (Chiang, Kocabasoglu-Hillmer & Suresh, 2012; Pereira, Christopher & Da Silva, 2014; Mandal, 2020) reveals a positive association between SF and SCR. Additionally, Piprani, Jaafar, Ali, Mubarik, and Shahbaz (2022) stressed that SCF through logistics

flexibility optimised SCR. Several earlier studies also concluded that DF is an antecedent of SCR (Tang, 2006; Tang & Tomlin, 2008; Colicchia et al., 2010; Yang & Yang, 2010). Lastly, studies by Dubey et al. (2019), and Gu, Yang and Huo (2021) found that ISF contributes to SCR. These insights lead to the following hypotheses:

H1: Sourcing flexibility positively influences supply chain resilience.

H2: Distribution flexibility positively influences supply chain resilience.

H3: Information sharing flexibility positively influences supply chain resilience.

Supply chain flexibility practices and firm competitive advantage

Firms' capabilities to adjust their sourcing operations to respond to customer and market demands are vital to maintaining their competitiveness by optimising their performance (Hilman & Mohamed, 2012). Tarigan, Siagian and Jie (2020) further established that an effective and flexible sourcing strategy exerts an impact on FCA. Karagoz and Akgun (2015) found DF to positively impact FCA. This result was endorsed by Tosun and Uysal (2016), who opine that DF contributes to FCA by sustaining customer satisfaction through firms' abilities to adjust their operations to respond swiftly to market constraints. Furthermore, Osita-Ejikeme and Eketu (2021) argue that ISF is a pillar of firms' sustainable FCA. This observation was confirmed by Arsawan, Koval, Rajiani, Rustiarini, Supartha and Suryantini (2022), who found that the exchange of information and knowledge exerts a significant influence on sustained FCA. The following hypotheses are thus stated:

H4: Sourcing flexibility positively influences firm competitive advantage.

H5: Distribution flexibility positively influences firm competitive advantage.

H6: Information-sharing flexibility positively influences firm competitive advantage.

Supply chain resilience and firm competitive advantage

Abeyssekara, Wang and Kuruppuarachchi (2019) concluded that SCR exerts a positive effect on FCA through the mediating role of agile operation. Consistently, Gölgeci and Kuivalainen (2020) highlight that SCR enhances operational performance, resulting in superior firm competitiveness. Therefore, it is hypothesised that:

H7: Supply chain responsiveness positively influences firm competitive advantage.

4. METHODOLOGY

4.1. Research design

The study adopted a quantitative method using a survey design to provide a better generalisation of the results across the consumer electronics sector.

4.2. Sampling method

The population in this study was composed of supply chain professionals employed in the consumer electronics industry in South Africa. The final sample of 195 supply chain professionals operating in this sector in Gauteng province was drawn from an estimated target population of over 4,000 employees (as per Zoominfo Technologies Inc. 2023 database), which constituted the sample of the study. These professionals were drawn selectively based on their expertise and experience in the

supply chain management (SCM) field as practitioners in the sector. Given the plurality of consumer electronics firms, an accurate sample frame was unobtainable; hence the study adopted a purposive approach.

2.3. Research instrument

The study used a structured questionnaire to collect data from the targeted supply chain professionals. The SCF practices measurement scales were adopted from Swafford, Ghosh and Murthy (2006) and Moon, Yi and Ngai (2012). SCR and FCA were measured using scales adopted from Wu and Chen (2012), and Mandal et al. (2016). Measurement scales were presented in a five-point Likert scale anchored by 1= strongly disagree to 5= strongly disagree.

2.4. Data collection

The data were collected between September and November 2022 using a combination of physical drop-off and an online survey. For the former, the questionnaires were distributed and collected after three weeks from respondents. For the online survey, a link was distributed to respondents, who returned their responses through a submission button. From the 400 questionnaires distributed, 195 were used in the final data analysis, representing a response rate of 48.7.

4.5. Data analysis

The data were analysed using the Statistical Packages for the Social Sciences (SPSS version 27.0) to analyse the sample properties and the partial least squares (SMART PLS version 3.0) tools. The analysis included descriptive statistics, analysis of the psychometric properties of measurement scales and hypotheses testing using structural equation modelling (SEM).

3. RESEARCH RESULTS

3.1. Sample profile

In terms of the demographic results, regarding the gender distribution, most respondents were male (66.2%; n=129) compared to females (33.3%; n=66). Most professionals had significant SCM experience, having been in their role between five to ten years (n=188; 96.4%). Most of the respondents (73.3%; n=145) were employed in senior and strategic positions, such as purchasing, procurement and warehouse manager. In terms of race, most respondents (50.2%; n=98) were black. Lastly, with reference to education levels, the highest number of respondents (58.9%; n=115) were holders of a university degree.

5.2. Psychometrics properties results

SEM, as applied in this study included testing for scale accuracy to check the psychometric properties of the measurement scales, followed by path analysis to test the hypotheses. The psychometrics properties analysis included the tests for reliability and validity, using various indicators. The results are presented in Table 1.

Table 1. Scale analysis results.

| Constructs | Scale Items | Factor Loadings | α | Rho_A | CR | AVE |
|------------|-------------|-----------------|----------|-------|------|------|
| SF | SF1 | 0.659 | 0.74 | 0.9 | 0.82 | 0.54 |
| | SF2 | 0.755 | | | | |
| | SF3 | 0.667 | | | | |
| | SF4 | 0.848 | | | | |
| DF | DF1 | 0.831 | 0.86 | 0.86 | 0.90 | 0.64 |
| | DF2 | 0.838 | | | | |
| | DF3 | 0.808 | | | | |
| | DF4 | 0.792 | | | | |
| | DF5 | 0.742 | | | | |
| ISF | ISF1 | 0.732 | 0.77 | 0.80 | 0.87 | 0.69 |
| | ISF2 | 0.883 | | | | |
| | ISF3 | 0.878 | | | | |
| SCR | SCR1 | 0.754 | 0.74 | 0.90 | 0.85 | 0.66 |
| | SCR2 | 0.839 | | | | |
| | SCR3 | 0.848 | | | | |
| FCA | FCA1 | 0.795 | 0.81 | 0.82 | 0.87 | 0.57 |
| | FCA2 | 0.738 | | | | |
| | FCA3 | 0.666 | | | | |
| | FCA4 | 0.768 | | | | |
| | FCA5 | 0.822 | | | | |

SF=Sourcing flexibility; DR= Distribution flexibility; ISF= Information systems flexibility; SCR= Supply chain flexibility; FCA= Firm competitive advantage; α = Cronbach alpha coefficient; CR= Composite reliability; AVE= Average variance extracted

Source. Authors' compilation

The reliability results presented in Table 1 show that all scales were reliable, as they all meant the threshold value of equal or greater than 0.7 required for the Cronbach alpha, Rho A and Composite Reliability (CR), respectively.

In testing for convergent validity, the Average Variance Extracted (AVE), as well as the factor loadings, were considered. The lowest recommended AVE for each scale was 0.5, and the same value was considered for the item factor loadings (Anderson & Gerbing, 1988). As shown in Table 1, AVE values and factor loadings were above the recommended 0.5, thereby confirming that all items were converging well on their expected constructs.

Discriminant validity was tested using inter-construct correlations. According to Bagozzi and Yi (1988), correlations less than 1.0 are an indicator of discriminant validity. As shown in Table 2, all correlations between the constructs were less than 1, confirming that discriminant validity was acceptable.

Table 2. Inter-construct correlations results

| | DF | FCA | ISF | SCR | SF |
|------------|--------|--------|--------|--------|-------|
| DF | 1.000 | | | | |
| FCA | 0.752 | 1.000 | | | |
| ISF | 0.600 | 0.870 | 1.000 | | |
| SCR | 0.877 | 0.823 | 0.725 | 1.000 | |
| SF | -0.130 | -0.156 | -0.189 | -0.172 | 1.000 |

SF=Sourcing flexibility; DR= Distribution flexibility; ISF= Information systems flexibility; SCR= Supply chain flexibility; FCA= Firm competitive advantage

Source: Authors' compilation

5.3. Path analysis results

As indicated above, SmartPLS version 3.0 was used to perform the path analysis. The results are presented in the structural model in Figure 1.

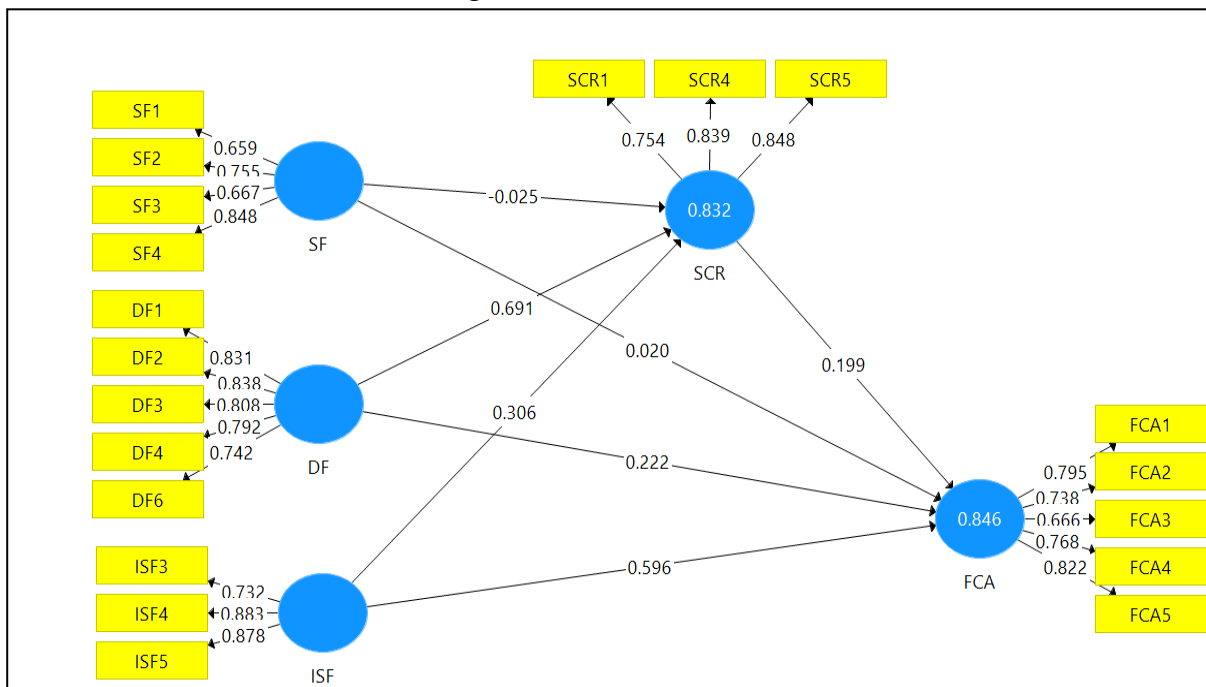


Figure 1. Structural model results

Figure 1 presents the structural model results of the study. Factor loadings (standardised regression weights) for individual items ranged between 0.666 and 0.883. Path coefficients for the tested relationships ranged between $\beta = -0.025$ and $\beta = 0.691$, with the highest occurring between DF and SCR ($\beta = 0.691$). The weakest relationships occurred between SF and SCR ($\beta = -0.025$); and SF and FCA ($\beta = 0.020$).

The results of the hypotheses tests are summarised in Table 3.

Table 3. Results of structural equation model analysis

| Suggested path | Hypothesis | T Statistics | P Values | Path coefficients β | Decision |
|----------------|----------------|--------------|----------|---------------------------|------------------|
| SF → SCR | H ₁ | 0.747 | 0.455 | -0.025 | Rejected |
| DF → SCR | H ₂ | 25.731 | 0.000 | 0.691 | Supported |
| ISF → SCR | H ₃ | 7.788 | 0.158 | 0.306 | Supported |
| SF → FCA | H ₄ | 0.698 | 0.485 | 0.020 | Rejected |
| DF → FCA | H ₅ | 3.144 | 0.002 | 0.222 | Supported |
| ISF → FCA | H ₆ | 11.641 | 0.000 | 0.596 | Supported |
| SCR → FCA | H ₇ | 2.722 | 0.007 | 0.199 | Supported |

Significance level <0.05; SF=Sourcing flexibility; DR= Distribution flexibility; ISF= Information systems flexibility; SCR= Supply chain flexibility; FCA= Firm competitive advantage

Source: Authors' compilation

Table 3 presents the results of the hypotheses testing. Of the six hypotheses developed, four were supported and two were rejected (H₁ and H₄). The results mean that SF has no influence on SRC and FCA.

4. RESULTS AND DISCUSSION

As observed in Table 3, the study's results showed that DF ($\beta = 0.691$; $t = 25.731$; $p = 0.000$) and ISF ($\beta = 0.306$; $t = 7.788$; $p = 0.158$) are driving factors of SCR. The two also positively influenced FCA ($\beta = 0.222$; $t = 3.144$; $p = 0.002$; $\beta = 0.596$; $t = 11.641$; $p = 0.000$); with DF exerting a stronger influence on SCR. However, H₁ ($\beta = -0.025$; $t = 0.747$; $p = 0.455$) and H₄ ($\beta = -0.025$; $t = 0.698$; $p = 0.020$) were rejected, which shows that SF is not a driver of both SCR and FCA in the South African consumer electronics goods. However, SCR predicted FCA ($\beta = 0.199$; $t = 2.722$; $p = 0.007$). The results denote DF and ISF are enabling factors of SCR and FCA; SCR predicts FCA in the consumer electronics goods sector in South Africa.

These results are consistent with previous results by Mandal, Sarathy, and Rao Korasiga (2016) who stressed that DF contributes to SCR. This view is important because DF allows consumer electronics firms to diversify their distribution channels to minimise operational delay and meet their delivery commitment. In the same breath, it is conceivable to stress that maintaining a level of dependability by consumer electronics firms in responding to distribution challenges can boost their operational performance and sustain customer satisfaction, which leads to optimal competitiveness (Phaxisithidet & Banchuen, 2020). Furthermore, Gu, Yang and Huo (2021) attributed FCA to firms' abilities to effectively utilise their IS resource to facilitate their agile response. This observation is particularly important because consumer electronics firms equipped with systems such as RFID (radio frequency identification), electronic data interchange (EDI), enterprise resource planning (ERP) and other office automated systems (OAS) are likely to be resilient enough to handle market turbulence. Moreover, Carvalho and Azevedo (2012) found that SCR influences FCA through SC performance. Similarly, Abeysekara, Wang and Kurupparachchi (2019) suggest that resilient firms can attain a level of competitiveness in volatile environments. This view is equally applicable to consumer electronics firms which have demonstrated adaptability

to deal with supply chain imbalances and are better positioned to maintain their level of success and survival.

5. CONCLUSION

The study examined the relationship between SCF practices and SCR, and FCA in South African consumer electronics firms. Quantitative data were collected from supply chain professionals drawn from the consumer electronic goods industry in Gauteng province. The results of the study showed that DF and ISF contribute to SCR and FCA respectively, while SF has no impact. The results also reveal that SCR influences FCA. Overall, these results are important because they offer practical insights into which SCF practices are important for the electronic consumer goods industry in optimising the resilience of their supply chain. From a theoretical perspective, the results add to the body of SCM literature by identifying SCF practices relevant to SCR and FCA.

6. RESEARCH LIMITATIONS

Firstly, caution should be exercised in generalising to other environments since the study is based on data collected from Gauteng province only. Secondly, the study has a narrow scope since only three SCF practices were identified, even though several other practices could also have been applied in the study. This being the case, future studies may seek to broaden the scope by looking at additional flexibility dimensions such as product, volume, manufacturing, responsiveness, logistics and supply base flexibility, to name a few. Secondly, an expansion of the geographic scope of the study to other regions apart from Gauteng province can provide a better representation of this important sector of the South African economy.

REFERENCES

- Abeyssekara, N., Wang, H. & Kuruppuarachchi, D. (2019). Effect of supply-chain resilience on firm performance and competitive advantage: A study of the Sri Lankan apparel industry. *Business Process Management Journal*, 25(7),1673-1695.
- Anderson, J.C. & Gerbing, D.W. (1988). Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411.
- Arsawan, I.W.E., Koval, V., Rajiani, I., Rustiarini, N.W., Supartha, W.G. & Suryantini, N.P.S. (2022). Leveraging knowledge sharing and innovation culture into SMEs sustainable competitive advantage. *International Journal of Productivity and Performance management*, 71(2), 405-428.
- Bagozzi, R.P. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16, 74-94.
- Beneke, J., de Sousa, S., Mbuyu, M. & Wickham, B. (2016). The effect of negative online customer reviews on brand equity and purchase intention of consumer electronics in South Africa. *The International Review of Retail, Distribution and Consumer Research*, 26(2), 171-201.
- Carvalho, H., Azevedo, S.G. & Cruz-Machado, V. (2012). Agile and resilient approaches to supply chain management: influence on performance and competitiveness. *Logistics Research*, 4, 49-62.
-

-
- Chan, A.T., Ngai, E.W. & Moon, K.K. (2017). The effects of strategic and manufacturing flexibilities and supply chain agility on firm performance in the fashion industry. *European Journal of Operational Research*, 259(2), 486-499.
- Chandak, A., Chandak, S. & Dalpati, A. (2019). The impact of supply chain strategy and supply chain flexibility on supply chain performance: A Study in the Indian Context. *IUP Journal of Supply Chain Management*, 16(1).
- Chiang, C.Y., Kocabasoglu-Hillmer, C. & Suresh, N. (2012). An empirical investigation of the impact of strategic sourcing and flexibility on firm's supply chain agility. *International Journal of Operations & Production Management*, 32(1), 49-78.
- Chirra, S. & Kumar, D. (2018). Evaluation of supply chain flexibility in automobile industry with fuzzy Dematel approach. *Global Journal of Flexible Systems Management*, 19, 305-319.
- Colicchia, C. & Strozzi, F. (2012). Supply chain risk management: a new methodology for a systematic literature review. *Supply Chain Management: An International Journal*, 17(4), 403-418.
- Colicchia, C., Dallari, F. & Melacini, M. (2010). Increasing supply chain resilience in a global sourcing context. *Production Planning & Control*, 21(7), 680-694.
- Covin, J.G. & Lumpkin, G.T. (2011). Entrepreneurial orientation theory and research: Reflections on a needed construct. *Entrepreneurship Theory and Practice*, 35(5), 855-872.
- Delic, M. & Eyers, D.R. (2020). The effect of additive manufacturing adoption on supply chain flexibility and performance: An empirical analysis from the automotive industry. *International Journal of Production Economics*, 228, 107689.
- Deloitte.Digital. (2021). *Digital Commerce Acceleration Increased online purchases present new opportunities for digital commerce players*. Retrieved from <https://www2.deloitte.com/content/dam/Deloitte/za/Documents/strategy/za-Digital-Commerce-Acceleration-2021-Digital.pdf>
- Department of Trade and Industry South Africa. (2020). *Investing in South Africa's electronics sector. Supplying an emerging African middle class*. Retrieved from https://nwdc.co.za/wp-content/uploads/2020/08/FACT-SHEET_ELECTRONICS_2020.pdf
- Dubey, R., Gunasekaran, A., Childe, S.J., Fosso Wamba, S., Roubaud, D. & Foropon, C., (2021). Empirical investigation of data analytics capability and organisational flexibility as complements to supply chain resilience. *International Journal of Production Research*, 59(1), 10-128.
- Ge, S., Xu, Z., Liu, H., Gu, C. & Li, F. (2019). Flexibility evaluation of active distribution networks considering probabilistic characteristics of uncertain variables. *IET Generation, Transmission & Distribution*, 13(14), 3148-3157.
- Gebauer, J. & Schober, F. (2006). Information system flexibility and the cost efficiency of business processes. *Journal of the Association for Information Systems*, 7(3), 8.
-

-
- Gölgeci, I. & Kuivalainen, O. (2020). Does social capital matter for supply chain resilience? The role of absorptive capacity and marketing-supply chain management alignment. *Industrial Marketing Management*, 84, 63-74.
- Gu, M., Yang, L. & Huo, B. (2021). The impact of information technology usage on supply chain resilience and performance: An ambidexterous view. *International Journal of Production Economics*, 232, 107956.
- Hair, J.F. (2011). Multivariate data analysis: An overview. *International Encyclopedia of Statistical Science*, 904-907.
- Hilman, H. & Mohamed, Z.A. (2012). Strategic role of sourcing strategy in the relationships between competitive strategies and organisational performance. *Journal for International Business and Entrepreneurship Development*, 6(1), 75-82.
- Karagoz, B. & Akgun, E.A. (2015). The roles of IT capability and organisational culture on logistics capability and firm performance. *Journal of Business Studies Quarterly*, 7(2), 1-23.
- Mandal, S. (2021). Impact of supplier innovativeness, top management support and strategic sourcing on supply chain resilience. *International Journal of Productivity and Performance Management*, 70(7), 1561-1581.
- Mandal, S., Sarathy, R., Korasiga, V.R., Bhattacharya, S. & Dastidar, S.G. (2016). Achieving supply chain resilience: The contribution of logistics and supply chain capabilities. *International Journal of Disaster Resilience in the Built Environment*.
- Mohammed, A., Yazdani, M., Oukil, A. & Santibanez Gonzalez, E.D. (2021). A hybrid MCDM approach towards resilient sourcing. *Sustainability*, 13(5), 2695.
- Moon, K.K.L., Yi, C.Y. & Ngai, E.W.T. (2012). An instrument for measuring supply chain flexibility for the textile and clothing companies. *European Journal of Operational Research*, 222(2), 191-203.
- Mostert, W., Niemann, W. & Kotzé, T. (2017). Supply chain integration in the product return process: A study of consumer electronics retailers. *Acta Commercii*, 17(1), 1-16.
- Nandakumar, M.K., Jharkharia, S. & Nair, A.S. (2014). *Organisational flexibility and competitiveness*. New Delhi: Springer India.
- Osita-Ejikeme, U.E. (2021). Information systems flexibility and robustness of manufacturing firms in Nigeria. *International Journal of Multidisciplinary Research and Growth Evaluation*, 2(6), 119-129.
- Park, M. (2016). Defying obsolescence. In *Longer Lasting Products*. Routledge.
- Phaxisithidet, T. & Banchuen, P. (2020). The influence of logistics flexibility and logistics service quality on competitive advantage of logistics service users in special economic zone, Lao PDR. In *The first International Conference on Management, Innovation, Economics and Social Sciences*.
-

College of Innovation and Management, Suan Sunandha Rajabhat University, 1 U-Thong Nok Road, Dusit, Bangkok 10300 Thailand.

Piprani, A.Z., Jaafar, N.I., Ali, S.M., Mubarik, M.S. & Shahbaz, M. (2022). Multi-dimensional supply chain flexibility and supply chain resilience: the role of supply chain risks exposure. *Operations Management Research*, 15(1-2), 307-325.

Ponomarov, S.Y. & Holcomb, M.C. (2009). Understanding the concept of supply chain resilience. *The International Journal of Logistics Management*, 20(1), 124-143.

Porter, M. (1998). (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: The Free Press.

Pratono, A.H., Darmasetiawan, N.K., Yudiantoso, A. & Jeong, B.G. (2019). Achieving sustainable competitive advantage through green entrepreneurial orientation and market orientation: The role of inter-organisational learning. *The Bottom Line*, 32(1), 2-15.

Roberta Pereira, C., Christopher, M. & Lago Da Silva, A. (2014). Achieving supply chain resilience: the role of procurement. *Supply Chain Management: an International Journal*, 19(5/6), 626-642.

Sandeepa, S. & Chand, M. (2018). Analysis of flexibility factors in sustainable supply chain using total interpretive structural modelling (T-ISM) technique. *Uncertain Supply Chain Management*, 6(1), 1-12.

Singh, R.K., Modgil, S. & Acharya, P. (2019). Assessment of supply chain flexibility using system dynamics modelling. *Global Journal of Flexible Systems Management*, 20, 39-63.

Snoeck, A. & Winkenbach, M. (2020). The value of physical distribution flexibility in serving dense and uncertain urban markets. *Transportation Research Part A: Policy and Practice*, 136, 151-177.

Swafford, P.M., Ghosh, S. & Murthy, N. (2006). The antecedents of supply chain agility of a firm: scale development and model testing. *Journal of Operations Management*, 24(2), 170-188.

Tang, C. & Tomlin, B. (2008). The power of flexibility for mitigating supply chain risks. *International Journal of Production Economics*, 116(1), 12-27.

Tarigan, Z.J.H., Siagian, H. & Jie, F. (2020). The role of top management commitment to enhancing the competitive advantage through ERP integration and purchasing strategy. *International Journal of Enterprise Information Systems (IJEIS)*, 16(1), 53-68.

Tosun, Ö. & Uysal, F. (2016). Physical distribution flexibility in logistics systems and its impact on productivity. *Journal of Advanced Management Science*, 4(1).

SSIRC 2023-059**SUSTAINING THE COVID-19 INDUCED DIGITAL TRANSFORMATION IN EDUCATION MECHANISMS FOR SUCCESS IN THE FOURTH INDUSTRIAL REVOLUTION****D. Mhlanga,**

University of Johannesburg, South Africa

ABSTRACT

The COVID-19 pandemic has caused a worldwide disruption of educational systems that is unparalleled and has sped up the transition to digital and remote learning. This transition has increased the demand for innovative educational techniques and could lead to long-lasting changes in the field. With the emergence of new technologies like artificial intelligence, robotics, and the Internet of Things, the Fourth Industrial Revolution (4IR) presents new options for education that can help students get ready for a world that is changing quickly. As a result, the purpose of the study was to analyse the methods that might be followed to maintain the digital transformation in education that was induced by COVID-19. The study used documentary analysis. Document analysis is a method of research that involves systematically analysing documents to understand their meaning and significance with a research question or topic of interest. This method involves analysing various types of documents, such as written texts, photographs, videos, and audio recordings. The study found out that the COVID-19 pandemic has accelerated the digital transformation of educational institutions around the world, and to sustain these changes, it is important to Invest in digital infrastructure, offer training and support for teachers, create engaging online learning experiences, prioritize student well-being, foster a culture of innovation, Collaborate with other institutions and stakeholder and many more. The article concludes that maintaining the digital transition in education necessitates a thorough and integrated approach involving policymakers, teachers, students, parents, and other stakeholders. It highlights the necessity of making investments in digital infrastructure, teacher preparation, and the creation of creative educational strategies that use cutting-edge technologies. The article also emphasises the significance of encouraging a culture of lifelong learning that equips people for the opportunities and challenges of the 4IR. In general, the report offers insights into the processes needed to maintain the COVID-19-induced digital transformation in education and proposes a path for assuring the sector's future success.

KEYWORDS: COVID-19, Digital Transformation, Education, Fourth Industrial Revolutio**1. INTRODUCTION**

The COVID-19 pandemic has accelerated the shift to digital and remote learning and produced an unprecedented disruption to the world's educational systems (Waller 2021, Alsoud & Harasis 2021, Maqsood et al. 2021). COVID-19's impact compelled societal changes across the world. Governments issued directives that, almost immediately (Mhlanga and Moloji 2020, Mehta & Maniar 2023), prevented large gatherings of people, prohibited in-person business transactions, and

urged people to work from home as much as possible. In response, due to the Internet, businesses and educational institutions started looking for ways to carry on their operations remotely. While working from home offices, they utilized a variety of collaboration platforms and video conferencing features to stay in touch with their coworkers, clients, and students (Waizenegger et al. 2020; Mhlanga 2021). Technology was already playing a bigger role in the workforce before the outbreak. Many businesses saw technology as a useful tool for connecting with clients, providing automation and quicker procedures, and offering some workplace flexibility. However, the new coronavirus outbreak and the ban on non-essential business interactions in person further expedited these adoptions. It compelled businesses to look for innovative digital solutions so they could continue operating remotely and providing their clientele with services. Many organizations adopted this shift towards digital operations on both the front end and the back end. To finish work or school tasks while working far from one another, numerous professional organizations and academic institutions had to come up with novel methods of communication and collaboration. Customers have also voiced a desire for services that involve little to no human interaction, pushing for remote or at least contact-limited operations from a customer-facing perspective. Together, these factors sped up a digital revolution that has affected a variety of organizations, including educational institutions. People can better grasp how organizations might embrace their digital transformation and what aspects of these changes are likely to endure by looking at how these developments have affected educational institutions.

According to Iglesias-Pradas et al. (2021), the COVID-19 pandemic has significantly altered how conventional higher education institutions offer their courses. Iglesias-Pradas et al. (2021) claim that, in contrast to previous shifts from face-to-face instruction to blended, online, or flipped classrooms, changes in emergency remote teaching a temporary switch of instructional delivery to a different remote delivery mode occur suddenly and unplanned. Iglesias-Pradas et al. (2021) investigated the effects of organizational factors related to unplanned change, instruction-related variables - class size, synchronous/asynchronous delivery, and use of digital supporting technologies - on students' academic performance at the School of Telecommunication Engineering, Universidad Politécnica de Madrid. In emergency remote teaching, students' academic performance improved, according to Iglesias-Pradas et al. (2021). This finding lends support to the theory that organizational factors may have something to do with emergency remote teaching's success; the analysis did not uncover any differences between courses with various class sizes or delivery methods.

According to a different study by Babbar & Gupta (2022), the current COVID-19 epidemic has fundamentally altered the teaching-learning process and revolutionized the educational sector. The goal of Babbar & Gupta (2022) is to examine the various teaching methods employed by educational institutions around the globe and to offer a comprehensive overview of the numerous steps that governments and universities have made to cope with the dire situation. According to Babbar & Gupta (2022), both instructors and students gained new experiences because of the drastic change to digital pedagogy and online tests and evaluations. Babbar & Gupta (2022) explain the remarkable difficulties that numerous stakeholders faced in making the necessary transition to

digital learning as well as the significant efforts made by educational institutions to reduce learning losses. The COVID-19 pandemic also brought several opportunities, and Babbar and Gupta (2022) emphasize the necessity of creating effective systems to handle such unanticipated crises in the future. Babbar and Gupta's (2022) ideas could help educational institutions overcome obstacles and uphold academic integrity during turbulent times.

In a different study that concentrated on the United States of America, Kraft et al. (2021) concluded that COVID-19 disrupted conventional educational practices by closing schools throughout the country. Using responses to a working conditions survey from a sample of 7,841 teachers across 206 schools and 9 states, Kraft et al. (2021) investigated teachers' experiences during emergency remote teaching in the spring of 2020. Teachers reported a variety of difficulties with involving students in remote learning and juggling their professional and personal obligations, according to Kraft et al. (2021). Again, Kraft et al. (2021) discovered that instructors in schools with significant levels of poverty and most Black students thought these difficulties were the most severe, indicating that the pandemic worsened already-existing educational imbalances. According to research by Kraft et al. (2021), the pandemic and the shift to emergency remote instruction were responsible for a sharp decline in teachers' feelings of success. Additionally, Kraft et al. (2021) show how supportive working environments in schools were essential in assisting teachers in maintaining their sense of achievement. According to Kraft et al. (2021), teachers who worked in schools with effective communication, targeted training, meaningful teamwork, fair expectations, and genuine acknowledgement throughout the epidemic were less likely to experience losses in their sense of achievement.

According to Olawale and Mutongoza (2021), the COVID-19 pandemic has sparked a sudden digital shift in the education industry. Olawale & Mutongoza (2021) think it will be challenging for higher education institutions to return to the traditional methods of instruction since social distancing precautions will continue to be a proactive strategy to stop the coronavirus from spreading. According to Olawale and Mutongoza (2021), it is crucial to consider whether higher education institutions can effectively operate in a time of digital transformation brought on by the COVID-19 pandemic given that the fourth industrial revolution is a complex, dialectical, and exhilarating opportunity that has the potential to transform society for the better. Olawale and Mutongoza (2021) draw the following conclusion: Universities must constantly look for ways to improve online education and encourage the adoption of the fourth industrial revolution because we must learn to live and survive in the current crisis and the HEIs must continue to function fully. In a similar vein, Olawale and Mutongoza (2021) contend that governments in various nations should guarantee the availability of efficient communication tools and encourage technology-enhanced learning for students capable of bridging the digital divide that exists both in society and the educational system. Based on the data, this study set out to look at possible methods for maintaining the COVID-19-induced digital transformation of education.

Digital Transformation in Education

The term "digital transformation in education" refers to the incorporation of digital technology and tools into many aspects of the educational system intending to increase the teaching and learning experiences, improve administrative operations, and encourage creativity. It comprises making use of technology to change the approaches that have historically been utilized in education and to provide new chances for students, teachers, and educational institutions (Mhlanga 2022, Mhlanga 2023, Tojimamatovich 2023).

Key Areas of Digital Transformation in Education

Digital transformation in education encompasses several key areas which are listed below.

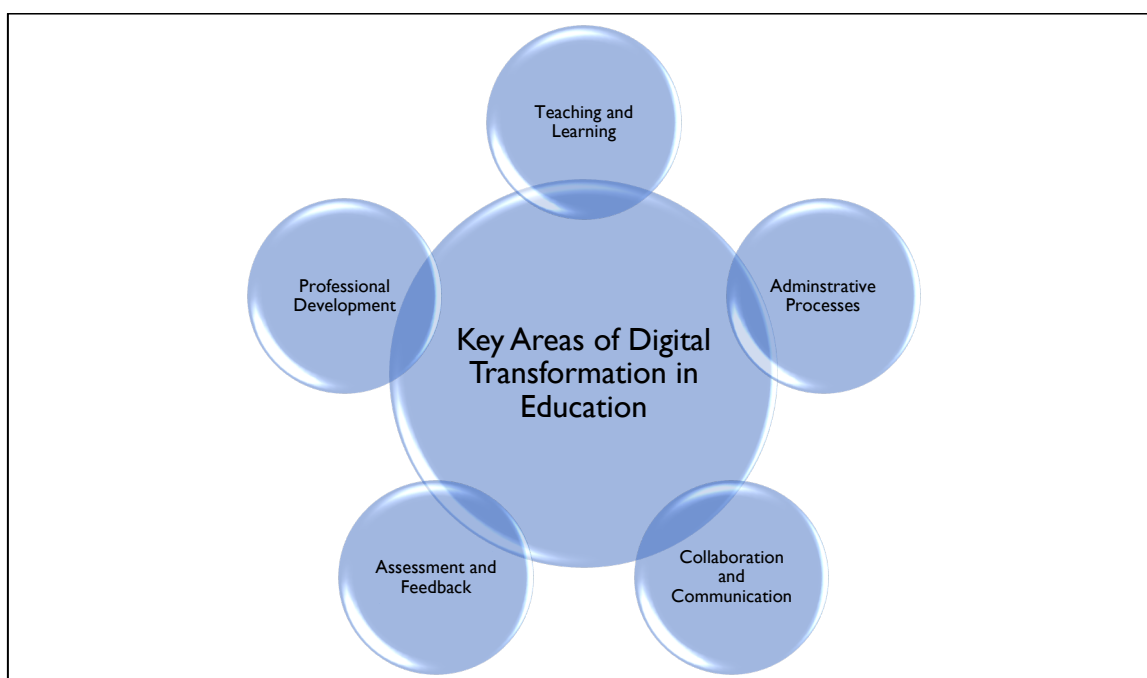


Figure 2: Key Areas of Digital Transformation

Concerning Teaching and Learning, digital technologies offer new avenues for delivering educational content, engaging students, and facilitating personalized learning. It includes the use of digital textbooks, multimedia resources, online learning platforms, educational apps, virtual and augmented reality (VR/AR), and other interactive tools. When it comes to collaboration and communication, digital transformation promotes communication and collaboration among students, teachers, and parents. It involves the use of online discussion forums, video conferencing, instant messaging, and collaborative platforms that enable remote learning and virtual classrooms.

The other key area is assessment and feedback. Technology can streamline the assessment process, providing automated grading, analytics, and data-driven insights to track student progress and customize learning paths. It includes online quizzes, formative assessments, and learning management systems (LMS) that enable efficient feedback and evaluation. As with administrative processes. Digital transformation improves administrative functions within educational institutions.

It involves implementing digital systems for student enrollment, attendance tracking, scheduling, grading, and record-keeping. Additionally, it encompasses the use of data analytics to inform decision-making, optimize resource allocation, and enhance operational efficiency. Professional Development is another key aspect. Digital technologies facilitate continuous professional development for educators. It includes online training programs, webinars, educational blogs, and social networks that enable teachers to stay updated with the latest teaching methodologies, share best practices, and collaborate with peers.

Benefits of Digital Transformation in Education

There are so many benefits associated with digital transformation which include those listed in Figure 2 below.



Figure 3: Benefits of Digital Transformation in Education

There is a plethora of benefits that come along with undergoing digital transformation, some of which are shown in Figure 2 above. However, digital transformation also brings challenges such as the need for infrastructure and connectivity, ensuring digital equity among students, cybersecurity concerns, and effective integration of technology into pedagogical practices. Addressing these challenges requires careful planning, professional development, and collaboration among stakeholders in the education ecosystem.

2. REVIEW OF IMPORTANT LITERATURE

The existence of the pandemic has undoubtedly contributed to the proliferation of literature on the topic of the digital transformation of the educational system. Mishra et al. (2020) wanted to address the required essentialities of online teaching-learning in education during the COVID-19 pandemic. Additionally, they wanted to investigate how existing resources of educational institutions can

effectively transform formal education into online education with the assistance of virtual classes and other important online tools in this continually shifting educational landscape. Mishra et al. (2020) discovered that during the lockdown time of the novel coronavirus disease 2019 (COVID-19), the whole educational system, from elementary to tertiary level, had collapsed not just in India but also throughout the rest of the world. This was the case in both countries. Mishra et al. (2020) portrayed the online teaching-learning modalities employed by Mizoram University for the teaching-learning process and following semester assessments in their paper, which was published in 2020.

It was suggested by Babbar and Gupta (2021) that the COVID-19 epidemic has completely transformed the educational system and compelled fundamental shifts in the way that teaching and learning are carried out. Babbar and Gupta (2021) wanted to present a comprehensive overview of the numerous steps that governments and universities have taken to withstand the crippling crisis. Additionally, they wanted to investigate the various types of education that are utilized by educational institutions all over the world. According to Babbar and Gupta (2021), the radical transition to digital pedagogy, which was then followed by online evaluations and examinations, brought about new experiences for both educators and students. In their study, Babbar and Gupta (2021) explain the remarkable difficulties that numerous stakeholders have in making the necessary transition to digital learning, as well as the significant efforts that educational institutions make to reduce the amount of knowledge that is lost as a result of this transition. Additionally, Babbar and Gupta (2021) describe a variety of opportunities brought about by the COVID-19 pandemic and underline the necessity of developing suitable procedures to deal with unexpected crises in the future. Considering this, several proposals have been made, which, if implemented, might give educational institutions the ability to eradicate challenges and preserve the academic integrity of their programs, even in turbulent times.

According to Shao et al. (2022), the emergency caused by the COVID-19 pandemic has had diverse effects on different organizations, which has resulted in the adoption of alternative business operating models, which include the use of digital technology. According to Shao et al. (2022), the rapid adoption of digital technologies during the COVID-19 pandemic is a demonstration of how adaptive technologies connect with human and social institutions in ways that could be potentially hazardous or unequal. However, Shao et al. (2022) argue that it is still uncertain whether the digital transformations (DTs) generated by the COVID-19 problem will continue in the foreseeable future. Amid the crisis, Shao et al. (2022) wanted to determine whether or whether the DTs that were exacerbated by the appearance of the COVID-19 pandemic response were still present in the Tanzanian environment. According to the findings of Shao et al. (2022), there is an immense, colossal push towards adopting digital solutions, and the utilization of digital technologies, including digital payments, e-commerce, telemedicine, and online education, has grabbed the attention of businesses and individuals in Tanzania. According to Shao et al. (2022), the move has enabled the government to fulfil its development goals by allowing it to cope with the cascading effects of the COVID-19 pandemic and progressive economic recovery. In addition to this, the

findings provide policy options that can be used to take the induced DTs to the next level and keep them there.

3. MATERIALS AND METHODS

This study uses the critical document analytical method to examine the mechanisms that can be used to maintain the COVID-19 COVID-19-induced Digital Transformation in Education. Individual records (newspapers and blogs) and hard evidence (authored journals and books) were evaluated and interpreted. The author started by conducting a thorough search for articles that evaluated the effects of COVID-19 on digital transformation in education and those that provided practical recommendations for maintaining this momentum. The study included 59 publications in all, which were found on the three most important academic search engines: Web of Science, Google Scholar, and ResearchGate. The articles were then subjected to additional screening to separate those that specifically addressed the issue of digital transformation due to the COVID-19 pandemic in educational contexts. Ultimately, 25 papers in all were chosen for the study and subsequent analysis (see Figure 2). The material from these studies served as the main information sources for the findings presented and discussed in this study. The data that was provided and discussed in this research was used to create the findings. Many of the problems that were found were then categorised into themes using a process known as thematic data analysis after the enquiry was complete. Figure 2 gives an overview of the procedure and breaks down the steps required in publishing the articles on a range of trustworthy websites. The distribution of studies across several reliable websites is seen in Figure 3.

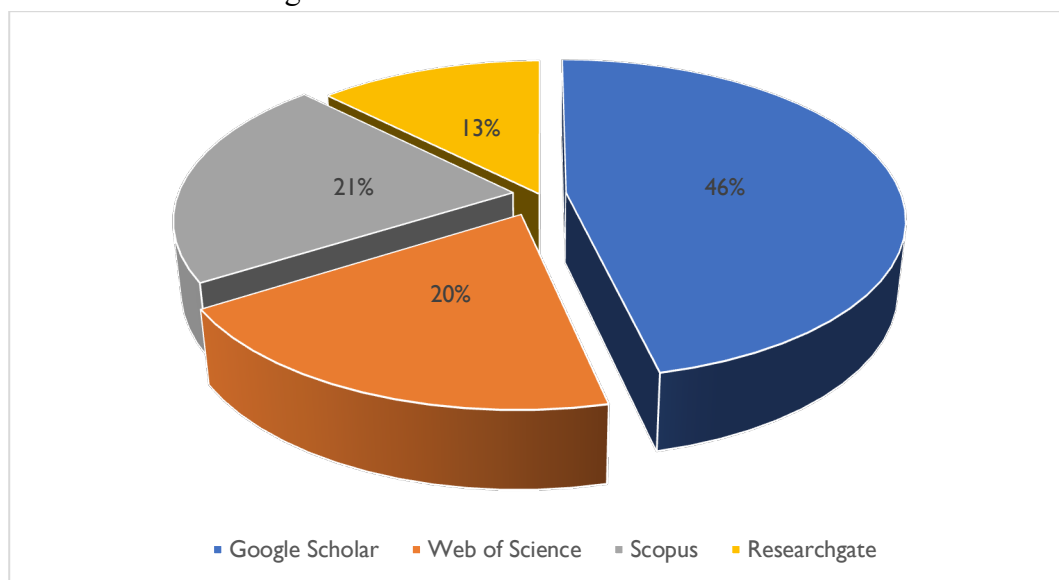


Figure 4: Articles used from Various Sites

Figure 3 above shows how papers are distributed among several websites, including Google Scholar, Scopus, and Research Gate. The procedures followed to choose which articles were included and which were excluded are shown in Figure 4.

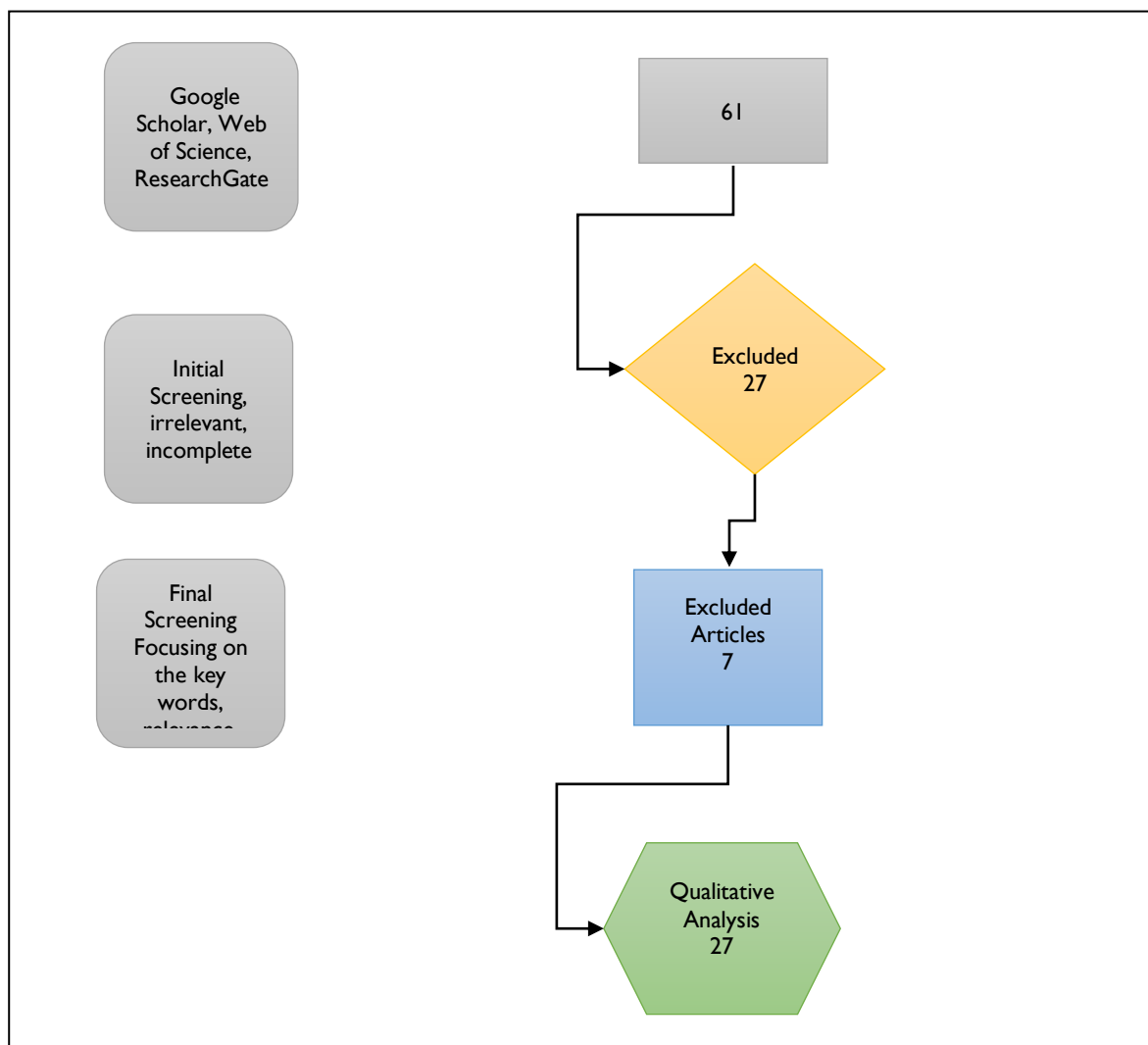


Figure 5: The Exclusion and Inclusion of Articles

Source: Author’s Analysis

After collecting all necessary physical papers, a thorough review was conducted, and then reading through the documents was also done to gain a basic grasp of the content, context, and structure of the documents. The initial observations or key points constituted the basis for the notes that were taken. Documents were organized into categories according to their shared topics and contents. The categorization that was done helped much in successfully organizing the analysis process. Data that was relevant to the examination of the mechanisms that can be employed to maintain the COVID-19-induced digital transformation in education was retrieved from the documents by first determining the important facts and then any other specific information that was relevant to the investigation. The last step was to look for patterns in language, tone, or writing style that might disclose crucial insights. If available, make use of tools or software designed specifically for text analysis.

Results and Discussion: Sustaining the COVID-19 Induced Digital Transformation in Education

The COVID-19 pandemic has accelerated the digital transformation of educational institutions around the world, and to sustain these changes, several things can be done:

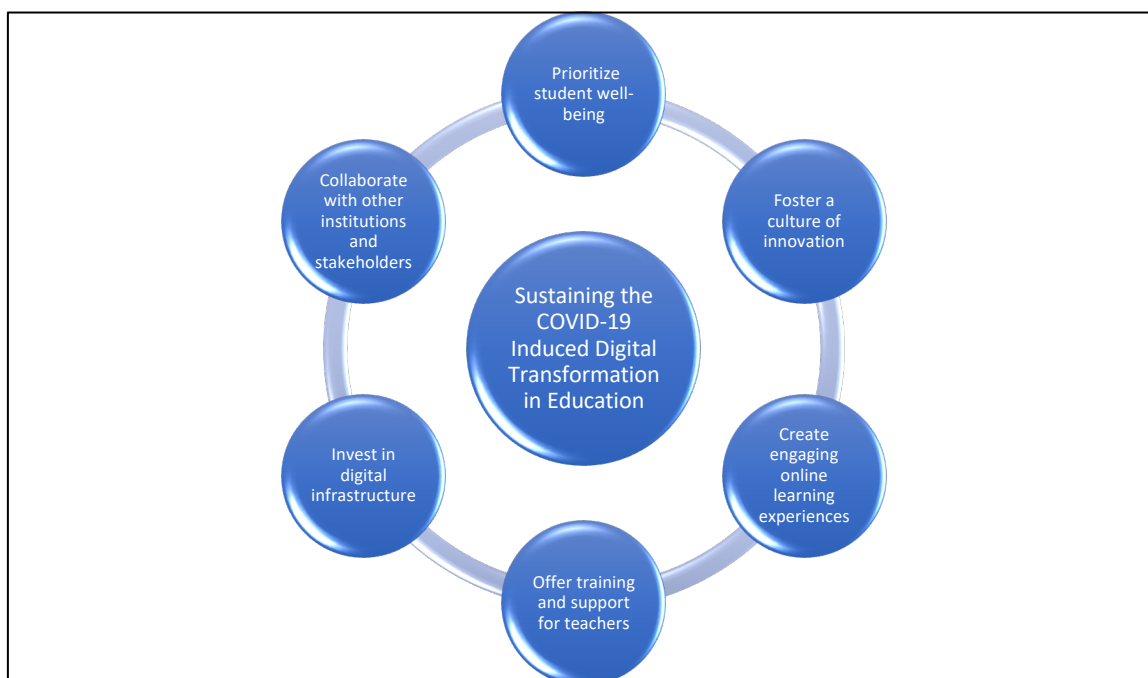


Figure 6: Sustaining the COVID-19 Induced Digital Transformation in Education

As shown in Figure 4 above there are so many mechanisms that can be used in sustaining the COVID-19 induced digital transformation in education. These factors will be explained in the sections below.

Invest in Digital Infrastructure.

Expanding and sustaining the COVID-19-induced digital transformation in education requires a strategic investment in digital infrastructure. Education institutions can invest in digital infrastructure to ensure that students and teachers have access to the technology and tools they need to learn and teach remotely (Kerres 2020, Heng & Sol 2021). This includes high-speed internet, devices such as laptops and tablets, and software applications that facilitate online learning. With high-speed internet, it is important to ensure that students and teachers have access to reliable high-speed internet connections. This can be achieved by partnering with internet service providers or setting up Wi-Fi hotspots in areas with limited connectivity. By providing internet access, educational institutions can bridge the digital divide and enable equal opportunities for all learners. This effort should be applied to educational institutions in rural areas where access to internet connectivity is a huge problem. This should be followed by an extensive effort to equip students with laptops and tablets so that students and teachers can engage in remote learning. This may involve providing laptops, tablets, or other mobile devices to individuals who do not have access to

personal devices. Additionally, educational institutions can consider setting up computer labs or loan programs where students can borrow devices for their educational needs. The other important aspect is software applications and digital tools. It is important to invest in educational software applications and digital tools that facilitate online learning. These tools can include learning management systems (LMS), video conferencing platforms, virtual classrooms, interactive learning materials, and collaboration tools. Educational institutions should carefully evaluate and select the appropriate tools that align with their curriculum and pedagogical approaches. The other important aspect is to invest in cloud storage and data management. Establishing robust cloud storage systems to securely store and manage educational resources, student data, and learning materials. Cloud-based solutions offer scalability, accessibility, and data backup options, ensuring that educational materials are easily accessible to both teachers and students, regardless of their location. This should be followed by investing in strong cybersecurity measures. Implementing robust cybersecurity measures is important to protect the digital infrastructure and safeguard sensitive information. This includes measures such as firewalls, secure authentication systems, data encryption, regular security audits, and educating students and teachers about online safety practices. Through making these investments in digital infrastructure, educational institutions can sustain the digital transformation in education and create a resilient learning environment that leverages technology for enhanced teaching and learning experiences.

Offer Training and Support for Educators

Education institutions can provide training and support for teachers to help them adapt to the new digital teaching and learning environment. This could include professional development workshops, online resources and tutorials, and access to educational technology experts (Oliveira et al. 2021, Zabolotska et al. 2021). Teacher training and professional development: Provide comprehensive training and professional development opportunities for teachers to effectively integrate technology into their instructional practices. This includes training on how to use digital tools, online assessment strategies, creating engaging online content and promoting effective online communication and collaboration among students. Expanding on the idea of offering training and support for teachers to sustain the COVID-19-induced digital transformation in education, educational institutions can organize professional development workshops specifically designed to equip teachers with the skills and knowledge needed for effective digital teaching. These workshops can cover various topics such as online instructional strategies, utilizing digital tools and resources, creating engaging online content, and assessing student learning in the virtual classroom. Workshops can be conducted by experienced educators, instructional technologists, or external experts in educational technology. In addition, it is important to provide teachers with a repository of online resources and tutorials that offer guidance on using specific digital tools and technologies. These resources can include step-by-step instructions, video tutorials, lesson plans, and best practices for incorporating technology into various subject areas. Online platforms or learning management systems can be used to centralize these resources and make them easily accessible to teachers.

The other important aspect is to establish a support system where teachers can consult and seek guidance from educational technology experts. These experts can offer personalized assistance, answer questions, and provide troubleshooting support related to digital tools and technologies. They can also offer advice on effective instructional strategies for the online environment and help teachers adapt their existing teaching methods to suit the digital context. The other important aspect is peer collaboration and communities of practice. Fostering a culture of collaboration among teachers by creating communities of practice or online forums where they can share ideas, experiences, and resources related to digital teaching. These platforms can serve as spaces for collaboration, discussion, and peer feedback. Teachers can exchange innovative teaching approaches, offer support to one another, and collectively solve problem-solving challenges they may encounter during the digital transformation process.

Mentoring programs are also important. It is critical to establish mentoring programs where experienced teachers proficient in digital teaching can provide guidance and support to their colleagues who may be less familiar with educational technology. Mentors can offer one-on-one support, share their own experiences, and help mentees navigate the complexities of digital teaching. This mentorship can be especially valuable for new teachers or those transitioning from traditional to digital teaching methods. Through offering comprehensive training and support for teachers, educational institutions can empower educators to embrace digital transformation in education and utilize technology to enhance student learning outcomes. Continuous professional development ensures that teachers are equipped with the necessary skills and confidence to navigate the evolving digital landscape in education.

Create Engaging Online Learning Experiences.

Education institutions can create engaging online learning experiences that are interactive and collaborative, using digital tools such as videos, podcasts, discussion forums, and virtual reality simulations. Educational institutions can leverage digital tools to create multimedia content that enhances online learning experiences. This can include videos, podcasts, interactive presentations, and infographics. For example, teachers can record and share instructional videos that explain complex concepts, conduct virtual experiments, or provide demonstrations. Podcasts can be used to share educational interviews, discussions, or storytelling, engaging students in audio-based learning experiences. Discussion forums and online collaboration are some of the ways which can be used to create engagement online. This allows students to engage in meaningful discussions, ask questions, and collaborate with their peers. These platforms can be used for virtual class discussions, group projects, or brainstorming sessions. Teachers can facilitate discussions by posing thought-provoking questions, assigning collaborative tasks, and providing timely feedback to encourage active participation.

As if not enough the other important thing is to integrate gamification elements into online learning experiences to enhance student engagement and motivation. This can involve incorporating game-based activities, quizzes, challenges, and leaderboards. Educational games and simulations can be used to make learning more interactive and immersive. For example, virtual reality simulations can

provide students with hands-on experiences in subjects like science, history, or art. More importantly, introducing personalized learning pathways where adaptive learning technologies are used to create personalized learning pathways for students can be helpful. These technologies analyze students' progress and provide tailored recommendations, resources, and assessments based on their individual needs and learning styles. Personalized learning platforms can offer adaptive quizzes, adaptive content delivery, and individualized feedback to optimize student learning experiences. Lastly, the other important aspect is to have virtual field trips and guest speakers by taking advantage of digital tools. Education institutions can organize virtual field trips and invite guest speakers from different locations. Virtual field trips allow students to explore museums, historical sites, and natural environments, providing immersive learning experiences without physical travel. Inviting guest speakers, such as experts or professionals in relevant fields, through video conferencing can enrich students' understanding of real-world applications of their learning.

One example is a college history professor who can organize a virtual field trip for students to explore ancient ruins. Using virtual reality technology, students can virtually walk through historical sites, examine artefacts, and interact with virtual guides. This immersive experience brings history to life and deepens students' understanding of the subject matter. Another example is a language teacher inviting a guest speaker from a foreign country to conduct a live video session with students. The guest speaker shares cultural insights, converses in the target language, and answers students' questions. This interaction provides students with a real-world context for language learning and exposes them to diverse perspectives. Through creating engaging online learning experiences, educational institutions can sustain the digital transformation in education and foster active student participation and motivation in the virtual classroom. These interactive and collaborative approaches enhance student learning outcomes and facilitate meaningful connections between students, teachers, and the learning content.

Prioritize Student Well-Being.

Education institutions can put a priority on the well-being of their students by offering assistance and support to those who are having trouble adjusting to distance learning. This might involve access to counselling services, mental health resources, and social interaction possibilities. To maintain the COVID-19-induced digital transformation in education, the idea of prioritizing student well-being should be expanded upon, and greater emphasis should be placed on mental health resources and assistance. During the digital transformation, educational institutions should place a priority on students' mental health and well-being. Access to mental health options like counselling services or internet treatment platforms may be part of this. These services should be made available to students, along with information on how to use them. In the online learning environment, schools can also provide instructional materials, workshops, or webinars on stress management, self-care, and maintaining a healthy work-life balance. Implementing social-emotional learning (SEL) programs is crucial for supporting students' social and emotional growth as well as their emotional well-being. Building resilience, self-awareness, empathy, and healthy relationships might be the main goals of SEL programs. These initiatives can be offered through SEL lessons or curricular

integration. To promote a sense of community and emotional connection, teachers might also add SEL activities, conversations, and reflection exercises into their online classrooms.

Peer support networks are the other crucial component. This can be accomplished by giving students the chance to network with their classmates and form support groups. This can be accomplished through online forums, interest-based organizations, or virtual clubs where students can interact, exchange stories, and support one another. Peer mentoring programs can be formed, where more seasoned students help younger ones with their academic and social difficulties. Additionally, it's critical to keep lines of communication between students, instructors, and support personnel open and frequently used. Create channels for students to readily contact their teachers for assistance with their academics or emotional needs, such as online office hours, email, or messaging platforms. Clear communication regarding requirements, tasks, and resources helps ease students' concerns and keep them focused on their learning objectives.

The second crucial step is to acknowledge that during remote learning, students may experience a variety of situations and difficulties. To meet each student's unique demands, give deadlines, evaluation procedures, and attendance policies enough wiggle room. Encourage teachers to be sympathetic and understanding of student's circumstances, considering things like access to technology, obligations to family, and health issues. Students can learn at their own pace and successfully manage their calendars by having the choice of asynchronous learning or recorded courses. A university setting up a virtual mental health facility where students can book online counselling sessions with qualified therapists is one example. The centre also provides articles, films, and guided meditation exercises that students can access whenever they want as self-help materials. Educational institutions may make sure that the social, emotional, and mental health requirements of students are met during the digital transformation by placing a high priority on student well-being. Schools may build a welcoming and inclusive online learning environment that supports student success by offering resources, assistance, and chances for social engagement.

Foster A Culture of Innovation.

Education institutions can foster a culture of innovation by encouraging experimentation and changing the technological landscape. And piloting new technologies and teaching methods. This can help to identify new best practices and to keep pace with the rapid. Expanding on the idea of fostering a culture of innovation to sustain the COVID-19-induced digital transformation in education, and encouraging experimentation, educational institutions can encourage teachers and students to experiment with new technologies, teaching methods, and learning approaches. This can be done by providing support, resources, and incentives for trying out innovative ideas. Teachers can be encouraged to explore different digital tools, platforms, and instructional strategies to enhance student engagement and learning outcomes. Students can be given opportunities to explore creative projects, collaborative problem-solving, and self-directed learning experiences. Schools can also create pilot programs to test and evaluate the effectiveness of new technologies and tools in the educational context. This involves selecting a group of teachers or classrooms to try out innovative technologies and provide feedback on their impact. Pilots can be conducted for virtual

reality, augmented reality, artificial intelligence-based tools, adaptive learning platforms, or other emerging educational technologies. The insights gained from these pilots can inform future implementation strategies and help identify best practices.

Collaboration and knowledge sharing are also crucial. Foster a collaborative environment where teachers, administrators, and staff members can share their experiences, successes, and challenges related to digital transformation. This can be done through regular meetings, workshops, or online platforms where educators can exchange ideas, discuss strategies, and learn from one another. Establishing communities of practice or professional learning communities focused on educational technology can provide a space for collaboration, joint problem-solving, and sharing of innovative practices. The other important aspect is to create partnerships with industry and research institutions. Collaborate with industry partners, research institutions, and educational technology companies to stay informed about emerging trends, research findings, and innovative solutions in the field of digital education. This can involve engaging in joint projects, research studies, or professional development programs that promote the exchange of knowledge and expertise. Such partnerships can provide access to cutting-edge technologies, expertise, and resources to support ongoing innovation in education. Involving students in the design and evaluation of digital learning experiences and technologies. Students can provide valuable insights into their preferences, learning styles, and needs, which can inform the development and improvement of digital tools and platforms. Encouraging student voice and choice can empower them to take ownership of their learning and contribute to the continuous improvement of educational technology. Examples of fostering a culture of innovation, a university partnering with a local research institution to conduct a joint study on the impact of artificial intelligence tools in improving student learning outcomes. Researchers and faculty members collaborate to design, implement, and evaluate the use of AI-based tools in specific courses. The findings are shared at conferences and through publications, contributing to the broader knowledge base in the field of educational technology.

Collaborate with Other Institutions and Stakeholders.

Education institutions can collaborate with other institutions and stakeholders, such as governments, non-profits, and private sector organizations, to share best practices and to leverage resources and expertise (Clarke & MacDonald 2019, Johnson et al. 2019, Stubbs et al. 2022). By taking these steps, education institutions can help to sustain the digital transformation that has been caused by the COVID-19 pandemic and build a more resilient and adaptable education system for the future (Iivari et al. 2020, Klein & Todesco 2021). Expanding on the idea of collaborating with other institutions and stakeholders to sustain the COVID-19-induced digital transformation in education. Sharing best practices is very important. Education institutions can collaborate with other schools, universities, and educational organizations to share best practices and lessons learned during the digital transformation. This can involve participating in conferences, webinars, or workshops where educators from different institutions come together to exchange ideas, discuss challenges, and share successful strategies. Collaborative platforms, online communities, or social media groups can also be used to facilitate ongoing communication and knowledge sharing. Partnerships with governments are another important step. Collaboration with government agencies

can be beneficial in terms of policy development, funding opportunities, and access to resources. Educational institutions can engage in dialogue with government officials to advocate for the importance of digital transformation in education and to contribute to the development of supportive policies and initiatives. Public-private partnerships can also be established to leverage government resources and private sector expertise to implement digital infrastructure projects, provide devices and internet access to underserved students, or offer professional development programs for teachers. As if not enough, engagement with non-profit organizations is also important. Non-profit organizations focused on education and technology can be valuable partners in sustaining the digital transformation. These organizations often have expertise in educational technology, research, or program development. Collaborating with non-profits can involve joint projects, knowledge sharing, or resource sharing. For example, an educational institution can partner with a non-profit organization that specializes in teacher training to provide professional development workshops or online courses to educators.

Collaboration with private sector organizations is also crucial. Private sector organizations, especially those in the technology industry, can offer resources, expertise, and innovative solutions to support the digital transformation in education. Collaborating with technology companies, software developers, or e-learning platforms can involve piloting new educational technologies, accessing discounted or free software licenses, or receiving technical support. Partnerships with private sector organizations can also provide internship or job placement opportunities for students, allowing them to gain practical experience and industry-relevant skills. International collaborations are also important. Education institutions can engage in international collaborations to learn from global best practices and expand their perspectives on digital education. Partnering with schools, universities, or educational organizations from different countries can involve joint research projects, student exchanges, or sharing of teaching materials. International collaborations can foster cultural understanding, promote diversity, and expose students and educators to different approaches and innovations in digital education. Examples of collaboration with other institutions and stakeholders. A university partners with a non-profit organization that specializes in providing internet access to underserved communities. The university provides the infrastructure and support, while the non-profit organization helps secure funding and establish community internet centres. This collaboration ensures that students from marginalized backgrounds have access to the necessary technology and internet connectivity for online learning. The other example is where an educational institution partners with a university in another country to conduct joint research on the effectiveness of online assessment methods. The collaboration involves sharing data, analyzing results, and publishing research papers together. This international collaboration allows both institutions to gain insights into different approaches to online assessment and contributes to the body of knowledge on effective digital assessment strategies. By collaborating with other institutions and stakeholders, education institutions can leverage collectively.

4. CONCLUSION AND POLICY RECOMMENDATION

The COVID-19 pandemic has sped up the transition to online and remote learning and caused a global disruption of the educational infrastructure that is unparalleled. Modern educational

techniques are now much more necessary, and the sector may experience long-lasting changes because of this development. With the advent of new technologies like artificial intelligence, robotics, and the Internet of Things, the Fourth Industrial Revolution (4IR) has opened new educational opportunities that can help students get ready for a world that is changing quickly. The project's objective was to investigate potential tactics for maintaining the digital revolution in education that COVID-19 had sparked. Documentary analysis was employed in the study. Studying documents carefully to understand their significance and meaning about a research question or topic of interest is known as "documentary analysis" in the field of research. This method includes analyzing a variety of elements, including textual texts, photographs, videos, and audio recordings. The COVID-19 pandemic, according to the report, has sped up the digital transformation of educational institutions all around the world. It is essential to invest in digital infrastructure, train, and support teachers, develop engaging online learning experiences, prioritize student wellbeing, foster an innovation-friendly culture, and work with other institutions and stakeholders, among other things, to maintain these changes. The article's conclusion states that maintaining the digital change in education necessitates a holistic approach that includes policymakers as well as parents, teachers, students, and other stakeholders. It emphasizes the value of supporting digital infrastructure, teacher preparation, and the creation of cutting-edge technologically advanced new educational techniques. The essay also emphasizes the significance of promoting a culture of lifelong learning that equips people to meet the opportunities and challenges of the 4IR. The study sheds light on the processes necessary to maintain the digital transformation of education brought about by COVID-19 and proposes a strategy for assuring the sector's future success.

REFERENCES

- Alsoud, A. R., & Harasis, A. A. (2021). The impact of the COVID-19 pandemic on students' e-learning experience in Jordan. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1404-1414.
- Babbar, M., & Gupta, T. (2021). Response of educational institutions to COVID-19 pandemic: An inter-country comparison. *Policy Futures in Education*, 14782103211021937.
- Babbar, M., & Gupta, T. (2022). Response of educational institutions to COVID-19 pandemic: An inter-country comparison. *Policy Futures in Education*, 20(4), 469-491.
- Heng, K., & Sol, K. (2021). Online learning during COVID-19: Key challenges and suggestions to enhance effectiveness. *Cambodian Journal of Educational Research*, 1(1), 3-16.
- Iglesias-Pradas, S., Hernández-García, Á., Chaparro-Peláez, J., & Prieto, J. L. (2021). Emergency remote teaching and students' academic performance in higher education during the COVID-19 pandemic: A case study. *Computers in human behaviour*, 119, 106713.
- Kerres, M. (2020). Against all odds: Education in Germany coping with COVID-19. *Postdigital Science and Education*, 2, 690-694.
- Kraft, M. A., Simon, N. S., & Lyon, M. A. (2021). Sustaining a sense of success: The protective role of teacher working conditions during the COVID-19 pandemic. *Journal of Research on Educational Effectiveness*, 14(4), 727-769.

-
- Maqsood, A., Abbas, J., Rehman, G., & Mubeen, R. (2021). The paradigm shift for educational system continuance in the advent of COVID-19 pandemic: mental health challenges and reflections. *Current Research in Behavioral Sciences*, 2, 100011.
- Mehta, S., & Maniar, A. (2023). TECHNOLOGY DURING COVID-19: BOON OR A CURSE. *International Journal of Management, Public Policy, and Research*, 2(Special Issue), 40-44.
- Mhlanga, D. (2021). The fourth industrial revolution and COVID-19 pandemic in South Africa: The opportunities and challenges of introducing blended learning in education. *Journal of African Education*, 2(2), 15.
- Mhlanga, D., & Moloji, T. (2020). COVID-19 and the digital transformation of education: What are we learning on 4IR in South Africa? *Educational sciences*, 10(7), 180.
- Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during the lockdown period of the COVID-19 pandemic. *International Journal of Educational Research Open*, 1, 100012.
- Olawale, B., & Mutongoza, B. (2021). Digital transformation in higher education institutions: Issues of functionality amid the COVID-19 pandemic. In *Global Education Network (GEN) Conference*, East London, South Africa.
- Oliveira, G., Grenha Teixeira, J., Torres, A., & Morais, C. (2021). An exploratory study on the emergency remote education experience of higher education students and teachers during the COVID-19 pandemic. *British Journal of Educational Technology*, 52(4), 1357-1376.
- Shao, D., Mwangakala, H., Ishengoma, F., Mongi, H., Mambile, C., & Chali, F. (2022). Sustainance of the digital transformations induced by the COVID-19 pandemic response: lessons from Tanzanian public sector. *Global Knowledge, Memory, and Communication*.
- Tojimamatovich, J. V. (2023). Digital Transformation of Educational Management System. *Web of Semantic: Universal Journal on Innovative Education*, 2(4), 202-206.
- Waizenegger, L., McKenna, B., Cai, W., & Bendz, T. (2020). An affordance perspective of team collaboration and enforced working from home during COVID-19. *European Journal of Information Systems*, 29(4), 429-442.
- Waller, L., G. (2021) Digital transformation for higher education post-COVID-19. Available online: <https://researchoutreach.org/articles/digital-transformation-higher-education-post-COVID-19/>
- Zabolotska, O., Zhyliak, N., Hevchuk, N., Petrenko, N., & Alieko, O. (2021). Digital competencies of teachers in the transformation of the educational environment.
- Stubbs, W., Dahlmann, F., & Raven, R. (2022). The Purpose Ecosystem and the United Nations Sustainable Development Goals: Interactions Among Private Sector Actors and Stakeholders. *Journal of Business Ethics*, 180(4), 1097-1112.
- Clarke, A., & MacDonald, A. (2019). Outcomes to partners in multi-stakeholder cross-sector partnerships: A resource-based view. *Business & Society*, 58(2), 298-332.
-

- Johnson, C., Tilt, J. H., Ries, P. D., & Shindler, B. (2019). Continuing professional education for green infrastructure: Fostering collaboration through interdisciplinary pieces of training. *Urban Forestry & Urban Greening*, *41*, 283-291.
- Iivari, N., Sharma, S., & Ventä-Olkkonen, L. (2020). Digital transformation of everyday life—How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care? *International journal of information management*, *55*, 102183.
- Klein, V. B., & Todesco, J. L. (2021). COVID-19 crisis and SMEs responses: The role of digital transformation. *Knowledge and Process Management*, *28*(2), 117-133.

SSIRC 2023-060**SOCIAL VALUE CREATION IN SOUTH AFRICAN SOCIAL ENTERPRISES: POST COVID-19 LESSONS****A.M. Sheikl**

University of Johannesburg, South Africa

V.O. Adekomaya

University of Johannesburg, South Africa

ABSTRACT

The objective of this study is to investigate how social enterprise ventures in a South African setting identify innovative ways of creating social value under challenging and poorly resourced environments. This study applied a qualitative multiple case study design, reporting on findings of five social entrepreneurial organisations in South Africa, purposively selected as case studies. A content analysis and cross case analysis was utilised for this study. The findings indicated that social value creation is achieved through resource maximisation, networking with other third-sector organisations and focused stakeholder engagement. In this study, what became evident is that a crisis such as the COVID-19 pandemic amplified the lack of resources available to social enterprises. To address societal needs, intentional networking, active collaboration, adaptability and using available resources across multiple organisations were crucial. The recommendation is that practices used during the pandemic should be incorporated into a social enterprise's daily operational practices to encourage continued social value creation. This study adds to the social entrepreneurship literature and shares practices that can be applied by social enterprise practitioners nationally and internationally.

KEYWORDS: social enterprise, social value creation, resource utilisation, South Africa, post COVID-19.

1. INTRODUCTION

Social enterprises in South Africa have faced several challenges due to the COVID-19 pandemic, which has disrupted the social and economic environment in the country. Social enterprises are businesses that are established with the primary goal of creating positive social or environmental impact, while also generate revenue to sustain their operations (Gregori, Wdowiak, Schwarz & Holzmann, 2019:9). In South Africa, social enterprises have faced several challenges due to the COVID-19 pandemic. The pandemic has led to economic uncertainty, decreased funding opportunities, reduced consumer spending, and disrupted supply chains (Saebi, Foss & Linder, 2019:75; Morris, Santos & Kuratko, 2021:57).

Social enterprises in South Africa have had to be innovative and adapt their business models due to the absence and support of a social economy policy. Bull and Ridle-Duff (2019:4) acknowledge that social enterprises in South Africa have continued to play a critical role in addressing social and

environmental challenges in their communities. Furthermore, the additional complexity created by the COVID-19 pandemic has highlighted the need for social enterprises to create social value and adapt their operations to address emerging social needs (Spieth, Schneider, Clauß & Eichenberg, 2019:428; Ratten, 2022:223). Social enterprises were able to pivot their operations, form partnerships, and leverage technology to continue creating social value in the country despite the economic downturn (Kuckertz, Berger & Gaudig, 2019:45).

Furthermore, Bhardwaj, Weerawardena and Srivastava (2023:25) observe the importance of social value creation for social enterprises in the country and the need for supportive policies and institutional arrangements to sustain them. The impact of the pandemic on social enterprises in South Africa and their resilience in responding to the crisis is highlighted by (Clark, Rampedi & Tengeh, 2021:179). This study investigates the resource strategies in South African social enterprises during the pandemic to gain a deeper understanding of the social value created and the best practices that are being continued post-COVID-19.

2. RESEARCH OBJECTIVES

The primary purpose of this study is to investigate the resource strategies applied in South African social enterprise case studies during the COVID-19 pandemic, as well as how social value was created during that period. A secondary purpose focuses on the lessons learned and practical implications at an organisational level.

The objective of this study is to investigate bricolage, resource cooptation, and other resource acquisition strategies in South African social enterprises during the pandemic to gain a deeper understanding of which practices are continued post-COVID-19.

3. LITERATURE REVIEW

This study focuses on resource strategies such as resource co-optation, bricolage, and resource acquisition and their association with social value creation.

3.1 Social value creation

The process of identifying and pursuing business opportunities that have a good social or environmental impact in addition to earning financial rewards is referred to as social value creation in entrepreneurship. Social value creation seeks to generate social and environmental benefits in addition to financial rewards (Wang, Yuen, Wong, and Li, 2020:78). Gupta, Chauhan, Paul, and Jaiswal (2020:212) define social value creation as the positive impact that social enterprises have on their stakeholders, which include the communities they serve, their employees, and the environment. Hence, an entrepreneurial approach is crucial for social enterprises to apply to produce social and environmental value, develop sustainable business models, and have a long-term influence on the communities they serve (Doherty & Kittipanya-Ngam, 2021:256).

As contended by Borzaga, Galera, Franchini, Chiomento, Nogales and Carini (2020), social entrepreneurs frequently operate in resource-constrained situations, requiring them to be creative in mobilizing resources to underserved populations. Thus, social enterprises frequently target

marginalised populations that have limited access to vital products and services such as clean water, healthy food, and cheap housing (Hota, Subramanian & Narayanamurthy, 2020:98). A key aspect of social value creation is how a social enterprise emphasises community empowerment by providing them with the tools and skills they need to become self-sufficient and improve their quality of life.

3.2 Resource co-optation in social enterprises

Resource cooptation is an essential strategy for social entrepreneurs to create social value. Furthermore, resource cooptation refers to the process of sharing resources, knowledge, and expertise between organisations to achieve common goals (Williams, Nason, Wolfe & Short, 2023:6). Simarasl, Jiang, Pandey and Navis, (2022:865) emphasise that resource cooptation can help social enterprises access new markets, technologies, and expertise, and increase their impact and for social enterprises to engage in resource cooptation.

In the post-COVID-19 era, social enterprises need to collaborate and co-create with other organisations to address social challenges effectively (Roundy & Bayer, 2019). Kreitmeyr (2019:293) emphasizes the necessity of social entrepreneurs gaining access to the resources they require to accomplish their social and environmental objectives, especially during the pandemic period which added a complexity to the existing social challenges. Furthermore, Michaelis, Scheaf, Carr and Pollack (2022:106) acknowledge that social enterprises need to develop innovative strategies for resource cooptation to achieve organisational objectives (Kickul & Lyons, 2020). Resource cooptation is a practical method that promotes novel approaches to resource acquisition.

3.3 Resource acquisition and utilisation

Furthermore, resource acquisition and utilisation play a crucial role in social value creation in social enterprises. Effective resource management can help social enterprises achieve their social and environmental goals, promote sustainable practices, and have a lasting impact on the communities they serve. Social enterprises need financial resources to support their operations and create social value. Lee, Tuselmann, Jayawarna and Rouse (2019:535) state that social enterprises rely on skilled and motivated staff to deliver their services and products. Social enterprises often collaborate with other organisations to achieve their mission (Rawhouser, Cummings & Newbert, 2019:86; Mamabolo & Myres, 2020:68). Rosca, Agarwal and Brem (2020:2) acknowledge that collaborations can create synergies and enable social enterprises to scale their impact, resulting in greater social value creation. Barraket, Eversole, Luke and Barth (2019:195) expand that technology can help social enterprises improve their operations, reach more people, and create greater social value. In other words, technology can improve the efficiency of operations, increase the quality of products and services, and enhance the overall social value created. Lee et al. (2019:538) contend that social enterprises have a responsibility to minimise their environmental impact and promote sustainable practices. This can lead to greater social value by improving the health and wellbeing of communities and preserving the natural environment.

3.4 Bricolage and organisational resources

Bricolage is often used in resource-constrained environments. introduced by Furthermore, the French anthropologist Claude Levi-Strauss introduced the concept of bricolage in 1967 (Hargreaves, 2021:115), a notion of utilising available materials, making do, and recombining them to make something new. Bricolage can assist entrepreneurs to optimise their use of organisational resources since bricolage is described as making the most of what they have available rather than investing in new resources (Reypens, Bacq & Milanov, 2021:106). Research on social bricolage illustrates how social entrepreneurs may excel while operating socially beneficial firms with limited resources (Di Domenico et al., 2010; Busch & Barkema, 2021:751). Thus, by leveraging existing organisational resources in innovative ways, entrepreneurs can create valuable products, services, and business models, even in resource-constrained environments. Bricolage can facilitate resource sharing between businesses or individuals, allowing them to pool their resources and expertise to create something new. Other studies highlight the importance of bricolage, resource cooptation, and other resource acquisition strategies in social value creation (Tsilika, Kakouris, Apostolopoulos & Dermatis, 2020:640; Ghalwash & Ismail, 2022:24; Ciambotti, Sgrò, Bontis & Zaccone, 2021:323). This can be particularly useful in situations where resources are limited or where collaboration is needed to address complex problems.

Collaboration is an important resource acquisition strategy for sustainability in the social economy sector. Tracey et al. (2005:105) describe collaboration as transactions between social businesses and corporations, which are marked by mutual benefit and proportional equity. Collaboration can be beneficial in bricolage since it allows entrepreneurs to access a greater range of resources and expertise and to overcome constraints on resources and gain access to new thoughts and perspectives (Babu, Dey, Rahman, Roy, Alwi & Kamal, 2020:25). Collaboration between corporations and social enterprises is significant because it has the potential to create a new type of political-economic structure that aims to balance community wellbeing with profit growth (Di Domenico, Tracey & Haugh, 2020:112). Collaboration can also help to create connections and networks, which can be useful for future entrepreneurial initiatives. Nkabinde and Mamabolo (2022:68) emphasise that social entrepreneurs in South Africa have a high level of bricolage due to the challenging economic and social context. Nkabinde (2020) argues that while these strategies can be effective in the short-term, social entrepreneurs should also aim to develop more systematic approaches to resource acquisition and utilisation for long-term sustainability.

3.5 Negative impact of COVID-19

The COVID-19 pandemic has had a substantial adverse influence on numerous organisational resources required, making company operations more difficult to operate efficiently. The negative effects of COVID-19 have disrupted supply chains, leading to shortages of critical resources and materials, and thus leading to a reduction in resource efficiency (Meier & Pinto, 2020:142; Pretorius, Drewes, Engelbrecht & Malan, 2022:737). Social enterprises in South Africa have not been spared the economic disruption caused by the COVID-19 epidemic, which has had an unfavourable effect on income streams and operational efficiency (Zhu et al., 2020:343).

4. RESEARCH METHODOLOGY

The study was exploratory, with the use of qualitative methodology (Creswell, 2013). The qualitative study approach enables the researcher to examine the phenomenon in its natural context (Saunders, Lewis & Thornhill, 2012). A multiple case study was utilised, including five social enterprises originating from a larger two-phased study.

4.1 Research design and sampling method

The social entrepreneurial organisations included in the study were chosen by means of purposeful sampling (Creswell, 2013). The shortlisted social enterprises were well known for their local social impact and received acknowledgement and awards from the private and public sector. The researcher began the sampling process in four provinces, namely Western Cape, Gauteng, KwaZulu-Natal, and the Free State. The unexpected emergence of the COVID-19 outbreak created uncertainty and only a few of the organisations as reflected in Table 1 committed to participate in research from the Gauteng and Free State provinces. The COVID-19 pandemic had many restrictions on travel and an extended lockdown period with many safety protocols which created limitations for the study.

Table 1 shows the five cases that were chosen from a private sector company awards nomination list of social enterprise organisations making an impact in their local communities. The private sector company runs an annual Social Innovation Contest, and the winning social enterprises receive a monetary reward. Included in the sample frame as part of the selection of social enterprises, the following selection criteria were met by the five cases: (1) the availability of the social entrepreneurial leader; (2) the focus of the social enterprise had to be social, economic, or addressing environmental disparities; (3) the social enterprise had to have secondary data in the form a website or reports. To aim for consistency, (4) the social enterprises included in the study had to be operational for more than three years in South Africa. A multiple case study allows for the investigation of similarities and differences.

Table 1: Summary - Multiple case study: Social entrepreneurial organisations

| ORGANISATION | ORGANISATIONAL OBJECTIVES |
|--|--|
| <p>Organisation SI Gauteng Urban</p> <p>A non-profit company</p> | <p>Organization SI has community knowledge centres (CKCs) across the country that provide information and digital literacy training, as well as access to computer equipment and training. The mission is to empower, educate, and connect people through the internet.</p> |
| <p>Organisation CC Gauteng urban</p> <p>A hybrid social enterprise (a for-profit company and non-profit organisation)</p> | <p>Organisation CC recycles second-hand and new clothes, with the goal of empowering people with disabilities (PWDs). Recycling: In collaborating with schools and private businesses, reusable clothes are resold through micro-businesses. Upcycling: Upcycling of old clothes into toys for early childhood development crèches. On-route inclusion: Through on-route life skills and supported employment, PWDs are placed in meaningful jobs through on-route life skills and supported employment.</p> |

| ORGANISATION | ORGANISATIONAL OBJECTIVES |
|--|--|
| <p>Organisation SP Gauteng peri-urban</p> <p>A hybrid social enterprise that includes Organisation C (non-profit organisation and a for-profit consultancy)</p> | <p>The vision, as stated by SP, is ‘<i>sparkling personal and community essence</i>’. Organisation SP seeks to come alongside, and support individuals and groups until they are self-sufficient. It also hopes to expand the organisation’s programme to help orphan children in the local community by teaching them how to make jewellery and engage in community engagement.</p> |
| <p>Organisation AF Free State Rural</p> <p>A non-profit organisation</p> | <p>Organisation AF is involved in community development. It provides a variety of programmes for adolescents and the community, including education, after-school care, social behaviour change programmes, entrepreneurship workshops, and crime prevention courses.</p> |
| <p>Organisation RF Free State peri-urban</p> <p>A non-profit organisation</p> | <p>Organisation RF serves and develops the community's most vulnerable members. Important components of the development include early childhood development programmes and social development through multi-purpose programmes.</p> |

Source: Author’s own compilation

4.2 Research instrument and data collection

There were two data gathering phases in the larger original study. In the first phase, a Delphi Method was used with a group of social economy experts, and in phase two, the multiple case study (Yin, 2013) was used, including social enterprises as a unit of analysis. The dataset for this study originates from phase two in the original study, and it comprises five multiple case studies. The data was gathered utilising semi-structured interviews. To maintain anonymity, the five cases featured were given different names, for instance Organisation SI, and Organisation CC, Organisation SP, Organisation AF, Organisation RF with extra contextual material on the organisations included in Table 1. Participants were anonymised and given an appropriate identifier, for instance, employees were indicated as ‘E’ in the participant code. Participants included in the study are the managing director, also known as the social enterprise leader (L), employees (E), beneficiaries (B), and stakeholders (S) associated with the social company. Furthermore, the participant code created for each participant follows a specific pattern namely, the abbreviation of the organisation, then the description of the participant, and lastly the number sequence in which the participant was interviewed, so for instance if the participant was first an allocation of 01 is given. As an example, for organisational leader in Organisation SI, the code allocated is SIL01. In total five case studies and thirty (30) participants were included in the study.

Owing to the pandemic, COVID-19 guidelines and social distancing had to be adhered to. As a result, the semi-structured interviews were done when the lockdown requirements were relaxed, which was conducted in Johannesburg between November 2020 and January 2021. However, the three Gauteng social enterprises agreed to conduct the interviews on-site. In compliance with COVID-19 requirements, each organisation provided a conference or meeting room large enough to keep a safe distance between the researcher and the participant during the interview. By

conducting interviews at the social business's location, the researcher was able to gain an insight into the operational processes within the organisation. The researcher also requested key organisational documentation from the organisational leader when the information was available. Owing to the travel bans during the lockdown, the interviews with the two organisations in the Free State were conducted using available online platforms, such as Microsoft Teams and Zoom. As a next step, all the audio recorded interviews were transcribed. Furthermore, a follow-up was made with each participant to check and confirm the information once it had been transcribed, to ensure the accuracy and validity of the data (Creswell, 2013).

4.3 Data analysis

For each of the multiple case studies, the interviews were transcribed and coded (Yin, 2013). Following the coding, a content analysis was conducted to identify similarities and contrasts in the data and central themes were labelled (Boyatzis, 1998; Kiger & Varpio, 2020). The codes were assigned using the ATLAS.ti program, which was displayed on the right margin of the paper, and which helped minimise errors and reflected any duplication or overlapping in the code allocations. Then, relevant to the multiple case studies, themes were generated to explore the data linked to understanding the phenomena of how social companies responded during COVID-19, in relation to social value creation.

5. FINDINGS

The findings were narrowed to the evidence found on resource utilisation, resource cooptation, and bricolage across the social enterprises included in the multiple case studies. Table 2 presents the organisational challenges faced by each social enterprise as each experienced the effects of the pandemic in a real-world setting with unique socioeconomic dynamics from different geographic locations. Furthermore, Table 2 provides an insight into the operational activities employed by each social enterprise attempting to maintain the primary objective, namely the social mission, and to reach beneficiaries as best they could during the COVID-19 lockdown period. Moreover, Table 2 summarises some of the post-COVID-19 operational practices, adopted by the social enterprise, which created an opportunity for the organisations to find unique ways of approaching resource challenges. Over the past few months since the pandemic, consequently, new operational practices were adopted. The new practices were adaptations to deal with resource constraints, which created positive outcomes for the organisation and social value for the beneficiaries.

The information in Table 2 is utilised as a starting point from which to elaborate resource utilisation, resource cooptation, and bricolage evident in the dataset.

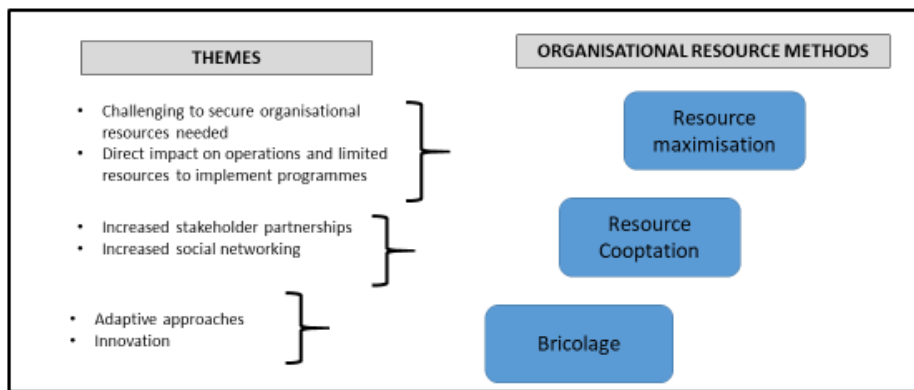
Table 2. Social enterprise cases: COVID-19 challenges and post COVID-19 practices

| ORGANISATION | Organisational Challenges during COVID-19 | During COVID-19 | Post COVID-19 Practices |
|--|---|---|--|
| <p>Organisation SI Gauteng (peri-urban)</p> <p>Digital Literacy and computer training for disadvantaged women and youth</p> | <p>Negative impact on training nationally.</p> <p>Financial challenges negatively affecting salaries. Funding cancelled or hindered during the pandemic.</p> <p>Mitigating associated risks by abiding by COVID-19 protocols.</p> | <ul style="list-style-type: none"> The organisation then started using cellphone devices, online communication, and social media platforms to reach communities to conduct virtual training, Designed an Online Virtual Hub to support all the training centres. | <p>Virtual training and the use of cellphone devices have been made a standard practice to reach an increased number of beneficiaries and to reduce costs.</p> |
| <p>Organisation CC Gauteng (Urban)</p> <p>Clothes recycling & empowering people with disabilities (PWDs)</p> | <p>Could not operate or effectively reach the beneficiaries.</p> | <p>Used the lockdown period to create three innovative designs to improve operational processes.</p> <ul style="list-style-type: none"> Automating internal process: Automated a weigh-in scale and created software to support internal recycling operational process. Digitised the life skills for PWDs training by creating YouTube video clips. Designed “a 3-phase power solar power trailer” (CCK01). | <p>The internal operations processes have been streamlined with the new technology implemented.</p> <p>Training and development for PWDs are enhanced with the digitised life skills videos.</p> |
| <p>Organisation SP Gauteng (peri-urban)</p> <p>Reaching orphaned children</p> | <p>Winding down the organisation.</p> | <p>Negatively affected in every area of the operation.</p> | <p>Closed.</p> |
| <p>Organisation 3AF Free State (rural)</p> <p>Outreach to communities through targeted development programmes.</p> | <p>Community outreach programmes could not continue, and beneficiaries could not be reached.</p> <p>Funding decreased.</p> | <ul style="list-style-type: none"> Partnered with government agencies and third sector organisations to meet beneficiaries’ needs, i.e food and medication. Created longer-term partnerships for the programmes. | <p>Partnerships fostered continue to add value to the organisational goals in terms of sharing resources.</p> |

| ORGANISATION | Organisational Challenges during COVID-19 | During COVID-19 | Post COVID-19 Practices |
|---|--|--|--|
| <p>Organisation AR Free State (Peri-urban) Outreach to the most vulnerable groups in the community and development through early childhood development programmes.</p> | <ul style="list-style-type: none"> • Organisation was displaced with no venue to operate from. • Lack of funding became critical. • No access to beneficiaries. | <ul style="list-style-type: none"> • Partnered with the local primary school for a space to operate. • Networked with third sector organisations to meet beneficiaries’ basic needs. • Created longer-term partnerships for the projects. | <p>The organisation reinstated the programmes successfully. The partnerships fostered during the pandemic strengthened, a move away from working in silos.</p> |

Source: Author’s own compilation

As presented in Graph 1, there are themes that emerged from the dataset are aligned to the three organisational resource methods being researched in this study, namely resource acquisition, resource co-optation and bricolage.



Graph 1 – Themes linked to Organisational Resource Methods

Resource acquisition – The experience for most social enterprises in the current South African social economy sector is that from the onset it is quite challenging to secure or acquire both financial and non-financial resources. Similarly, some of the social entrepreneurial leaders expressed their discontent with financial institutions and government departments when trying to secure funding to advance the social enterprise mission.

“...this problem that I can [not] go to the bank because if I go to the bank with this thing, they [will] say no, because they don't understand us [social enterprise]”. (Co-founder 1, CCK01)

“Some of the bigger challenges are we are not a social enterprise officially and we cannot get access to funding” (Co-founder 2, CCL01)

“... the high-flying NGOs, are getting more funding than grass roots NGOs”. (Founder, SIL01)

“... about 8 [eight] months late, so since March till end of August 2020 there was no [government] funding” (Founder, RFL01)

“...our [Organisation RF] partnerships we were able to attract or get food parcels, a little bit of money here and resources there”.

“... provide food parcels for the community”.

“... to harvest the vegetables from the university vegetable garden” (Founder, RFL01)

Furthermore, during the COVID-19 pandemic, the challenge to secure resources intensified and normal activities to acquire resources became limited due to the lockdown period. Both private and public sector organisations were closed during the lockdown period and social enterprise organisations had no access, which made it difficult to serve the target beneficiaries.

“COVID-19 had an impact ... not allowed to operate” (Founder, CCK01)

“So COVID-19 has taught us that ...” (Employee, AE02)

Moreover, the negative impact is wide ranging, namely affecting the daily organisational operations, staff salaries and the implementation of the programmes negatively affecting beneficiaries. Thus, social value creation is hampered, therefore.

“Staff salaries were negatively impacted...” (Founder, SIL01),

“... we couldn't progress on many programmes...” (Employee, AGE01)

“... negatively impacted training at the CKCs [community knowledge centres], the schools and children wanting to use the internet for school assignments” (Employee, SIE02)

Resource co-optation – Social enterprise collaborative efforts, including social networking from third sector organisations, intensified during the disruptive COVID-19 pandemic period. The main reason for the increased collaboration and networking between the organisations were dwindling resources. In an ideal situation when a social enterprise has acquired sufficient resources to implement projects and programmes, there is generally very little motivation to engage with potential partners outside the organisation. However, with declining access to resources during the pandemic, social enterprises collaborated more actively, and co-optation was activated between the organisations. For example, (a) the founder at Organisation AF indicated that a few non-profit organisations approached the organisation to make use of the venue to implement their programmes, they in turn gained by attending the certified training free of charge, building capacity for their organisation; (b) Organisation RF, created a mutually beneficial partnership with the local primary school to make use of the facility for after school educational programmes and in turn the school benefits from a co-optation arrangement to receive baked bread from Organisation AR's community baking project for the primary school feeding scheme; (c) for Organisation CC, the co-

option was influenced by a stakeholder, a private sector retail partnership, to collect previously used clothing. The retailer set up collection boxes in-store nationally to assist with the collection of clothes for recycling, which in turn gave the retailer credits for promoting a green business. Therefore, co-optation benefits both organisational parties involved. Furthermore, when co-optation adds capacity to the social enterprise to run efficiently, it increases the social value created by the organisation with a direct advantage for the target beneficiaries. Hence, value creation is enhanced through co-optation.

“... we exchanged the use of our venue for free certified training” (Founder, AFL01)

“... we have a community bakery project” (Founder, RFL01)

“... using the available school hall for the afterschool care service” (Founder, RFL01)

“all clothes collected by [international retailer] are either reused, re-worn or recycled with 0% going to landfill, in collaboration with Organisation B1” (Co-founder 1, CCL01)

Bricolage – In the findings, the social enterprises were utilising what they had available, and in addition applied adaptive strategies and innovation purely to survive the external disruption during the pandemic, and especially the lockdown period. The steps taken by each organisation to maximise resource utilisation are unique, namely (a) Organisation SI utilised the same training programmes but improved the approach on programme delivery; (b) Organisation CC applied innovation to enhance internal recycling processes by utilising technology; (c) although Organisation SP closed own, they maximised a stakeholder relationship and made sure the beneficiaries were accepted into a new early childhood development programme (ECD); (d) Organisation AG diversified the service offering by becoming a service provider to the local university as COVID-19 monitors for the local university in the area and started an income generation project developing and commercialising rosehip products; and lastly, Organisation AR similarly contracted services to the local university, and also creatively found a way to operate organisational activities from multiple sites after being displaced for a few months, creating stability for the organisation. Solely applying the bricolage approach during a pandemic period or over extended periods proves counterproductive to organisational objectives.

“That Organisation SI [is] developing a Virtual Hub platform ... [1] it will be used to connect all our community partners ... [2] is then that we can use the virtual hubs to open to ... beneficiaries and also [3] maybe ... trying to motivate and get it [website] zero-rate because we are an educational space”. (Founder, SIL01)

“We built the first wireless internet of things, post-consumer [recycling] processing system” (Founder, CCL01)

“... organisation [SP] came to a natural close.” (Founder, SPL01)

“... now going to establish this [ECD] school in your area.” (Stakeholder, SPS01)

“Apart from that let me explain – we have two types of relationships with them [university], we have this one which is non-financial, where we assist their students with practicals for the whole year, doing service learning, and then we have been appointed to the university to provide our services to monitor the implementation of COVID-19 regulations – so that one is a financial relationship... this thing about working with them the [university] is really, really working and empowering us to always commend the [University]...” (Founder, AGL01)

“The moment we transitioned.....we intentionally went on an information drive, as to let everybody know that we have transitioned, and we are moving.” (Employee, RFE01)

6. DISCUSSION

The findings show that social enterprises were resilient and innovative in responding to the crisis. The importance of social enterprises lies in their providing innovative solutions to social challenges and including the response to the pandemic, thus reaching disadvantaged and low-income communities in South Africa. Some of the challenges faced by social enterprises due to the COVID-19 pandemic are disruptions impacting organisational operation due to the lockdown period, reduced demand for products and services, and limited access to resources and beneficiaries.

In the context of social enterprises, resource co-optation can help organisations access new partnerships, including social networks, technologies, and expertise, and increase their impact of sustainability by leveraging the resources of other organisations. Social enterprises need to develop innovative strategies for resource co-optation to achieve their goals effectively. By identifying, acquiring, allocating, and utilising resources effectively, social entrepreneurs can create successful businesses and achieve their goals. Resource optimisation is essential and may involve finding new and innovative ways to use resources, reducing waste, and improving resource efficiency. Furthermore, bricolage proved a practical approach as a short-term strategy during the pandemic lockdown period, emphasising the importance of resourcefulness, resource optimisation, and resource sharing in creating something new using existing resources. Bricolage, resource co-optation and resource acquisition and maximisation strategies have been identified as important factors in social value creation.

In summary, it is proposed that social enterprises work in collaboration with other organisations, including government agencies, non-profits, and private sector firms. Also, social enterprises should identify and exploit opportunities to create social value through innovative business models and solutions and adapt to post COVID-19 trends.

7. RECOMMENDATIONS

Social enterprises in South Africa could incorporate operational best practices learned during the pandemic to enhance social value creation in a post-COVID-19 period, namely by (1) implementing active collaboration, building networks and partnering to leverage and maximise resources; (2)

incorporating new operating models that reflect the changing business landscape post COVID-19, namely digital transformation and innovation; embracing to adapt to the changing environment and increase efficiency by improving internal operational processes; finding alternative funding, sources such as crowdfunding; strengthening networks and stakeholder partnerships in private and public sector and including the non-profit sector.

8. CONCLUSION

In conclusion, the COVID-19 pandemic has emphasised the important role of social enterprises in addressing South Africa's social and economic concerns. According to the literature review, social entrepreneurs in South Africa encountered considerable hurdles during the pandemic, including decreased funding and demand for their products and services.

However, social enterprises have also demonstrated remarkable resilience and innovation in adapting to the changing and disruptive environment, and as a positive consequence social value was created. Moving forward, from an operational perspective, social enterprises in South Africa can take several best practices implemented during the pandemic and incorporate them into the daily operations of the social enterprise. Some of the best practices are transitioning to digital processes to reach an increased number of beneficiaries, applying innovation to enhance internal operational processes, active networking and creating intentional partnerships and most importantly to maximise resources. Thus, building on their strengths and leveraging the lessons learned from the pandemic, social enterprises can continue to create positive social value and impact in the post-COVID-19 world.

REFERENCES

- Al-Quteimat, O.M. & Amer, A.M. (2020). The impact of the COVID-19 pandemic on cancer patients. *American Journal of Clinical Oncology*.
- Babu, M. M., Dey, B. L., Rahman, M., Roy, S. K., Alwi, S. F. S. & Kamal, M. M. (2020). Value co-creation through social innovation: A study of sustainable strategic alliance in telecommunication and financial services sectors in Bangladesh. *Industrial Marketing Management*, 89, 13-27. <https://doi.org/10.1016/j.indmarman.2020.06.003>.
- Bhardwaj, R., Weerawardena, J. & Srivastava, S. (2023). Advancing Social Entrepreneurship Research: A Morphological Analysis and Future Research Agenda. *Journal of Social Entrepreneurship*, 1-35. <https://doi.org/10.1080/19420676.2023.2199748>.
- Borzaga, C., Galera, G., Franchini, B., Chiomento, S., Nogales, R. & Carini, C. (2020). Social enterprises and their ecosystems in Europe. *Comparative Synthesis Report*. Luxembourg: Publications Office of the European Union. Retrieved April 30, 2020.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Bull, M. & Ridley-Duff, R. (2019). Understanding social enterprise: Theory and practice. *Understanding Social Enterprise*, 1-512.

Ciambotti, G., Sgrò, F., Bontis, N. & Zaccone, M. C. (2021). Local relationships matter! The impact of intellectual capital on entrepreneurial bricolage in African social entrepreneurs. *Knowledge and Process Management*, 28(4), 321-330.

Clark, C., Rampedi, I. & Tengeh, R.K., 2021. Social entrepreneurship in South Africa during the COVID-19 pandemic: Emerging themes and research agenda. *Journal of Business Research*, 131, 177-184.

Creswell, J.W. (2013). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*. (4th ed) London: SAGE Publications, Inc.

Di Domenico, M., Tracey, P. & Haugh, H. (2020). The dialectic of social exchange: Theorizing corporate-social enterprise collaboration. In *Organizational Collaboration* (p. 100-118). Routledge.

Doherty, B. & Kittipanya-Ngam, P. (2021). The emergence and contested growth of social enterprise in Thailand. *Journal of Asian Public Policy*, 14(2), 251-271. <https://doi.org/10.1080/17516234.2020.1777628>.

Ghalwash, S. & Ismail, A. (2022). Resource Orchestration Process in the Limited-Resource Environment: The Social Bricolage Perspective. *Journal of Social Entrepreneurship*, 1-28. <https://doi.org/10.1080/19420676.2021.2020152>.

Gregori, P., Wdowiak, M. A., Schwarz, E. J. & Holzmann, P. (2019). Exploring value creation in sustainable entrepreneurship: Insights from the institutional logic's perspective and the business model lens. *Sustainability*, 11(9), 2505. <https://doi.org/10.3390/su11092505>.

Gupta, P., Chauhan, S., Paul, J. & Jaiswal, M. P. (2020). Social entrepreneurship research: A review and future research agenda. *Journal of Business Research*, 113, 209-229. <https://doi.org/10.1016/j.jbusres.2020.03.032>.

Hargreaves, M., 2021. Bricolage: A pluralistic approach to evaluating human ecosystem initiatives. *New Directions for Evaluation*, 2021(170), pp.113-124.

Hota, P. K., Subramanian, B. & Narayanamurthy, G. (2020). Mapping the intellectual structure of social entrepreneurship research: A citation/co-citation analysis. *Journal of Business Ethics*, 166(1), 89-114.

Kickul, J. & Lyons, T. S. (2020). *Understanding social entrepreneurship: The relentless pursuit of mission in an ever-changing world*. Routledge.

Kiger, M. E. & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No.131. *Medical Teacher*, 42(8), 846-854.

Kuckertz, A., Berger, E. S. & Gaudig, A. (2019). Responding to the greatest challenges? Value creation in ecological startups. *Journal of Cleaner Production*, 230, 1138-1147. <https://doi.org/10.1016/j.jclepro.2019.05.149>.

-
- Lee, R., Tuselmann, H., Jayawarna, D. and Rouse, J., 2019. Effects of structural, relational and cognitive social capital on resource acquisition: a study of entrepreneurs residing in multiply deprived areas. *Entrepreneurship & Regional Development*, 31(5-6), pp.534-554. <https://doi.org/10.1080/08985626.2018.1545873>.
- Mamabolo, A. & Myres, K. (2020). Performance measurement in emerging market social enterprises using a balanced scorecard. *Journal of Social Entrepreneurship*, 11(1), 65-87. <https://doi.org/10.1080/19420676.2018.1561499>.
- Meier, M. and Pinto, E., 2020. COVID-19 supply chain disruptions. *COVID Economics*, 48(1), pp.139-170.
- Michaelis, T. L., Scheaf, D. J., Carr, J. C. & Pollack, J. M. (2022). An agentic perspective of resourcefulness: Self-reliant and joint resourcefulness behaviors within the entrepreneurship process. *Journal of Business Venturing*, 37(1), 106083. <https://doi.org/10.1016/j.jbusvent.2020.106083>.
- Morris, M. H., Santos, S. C. & Kuratko, D. F. (2021). The great divides in social entrepreneurship and where they lead us. *Small Business Economics*, 57, 1089-1106. <https://doi.org/10.1007/s11187-020-00318-y>.
- Nkabinde, S. & Mamabolo, A. (2022:53). The South African social enterprises' strategies to guard against mission drift when faced with tensions from the funders. *Cogent Business Management*, 9(1), 2135215. <https://doi.org/10.1080/23311975.2022.2135215>.
- Nkabinde, S. P. (2020). Cross-sector collaboration between social enterprises and their external funders in a resource constraint environment (Doctoral dissertation, University of Pretoria). <http://hdl.handle.net/2263/80495>.
- Ometto, M.P., Gegenhuber, T., Winter, J. and Greenwood, R., 2019. From balancing missions to mission drift: The role of the institutional context, spaces, and compartmentalization in the scaling of social enterprises. *Business & Society*, 58(5), pp.1003-1046.
- Pretorius, O.R., Drewes, J.E., Engelbrecht, W.H. and Malan, G.C., 2022. Developing resilient supply chains in the Southern African Development Community: Lessons from the impact of COVID-19. *Journal of transport and supply chain management*, 16, p.737.
- Ratten, V. (2022). Coronavirus (COVID-19) and social value co-creation. *International Journal of Sociology and Social Policy*, 42(3/4), 222-231.
- Rawhouser, H., Cummings, M. & Newbert, S. L. (2019). Social impact measurement: Current approaches and future directions for social entrepreneurship research. *Entrepreneurship Theory and Practice*, 43(1), 82-115. <https://uk.sagepub.com/en-gb/journals-permissions>.
- Reypens, L., Bacq, S. & Milanov, H. (2021). Beyond bricolage: Early-stage technology venture resource mobilization in resource-scarce contexts. *Journal of Business Venturing*, 36(4), 106110.
-

-
- Rosca, E., Agarwal, N. & Brem, A. (2020). Women entrepreneurs as agents of change: A comparative analysis of social entrepreneurship processes in emerging markets. *Technological Forecasting and Social Change*, 157, 120067. <https://doi.org/10.1016/j.techfore.2020.120067>.
- Roundy, P. T. & Bayer, M. A. (2019). To bridge or buffer? A resource dependence theory of nascent entrepreneurial ecosystems. *Journal of Entrepreneurship in Emerging Economies*.
- Sandoval, M. (2020). Entrepreneurial activism? Platform cooperativism between subversion and co-optation. *Critical Sociology*, 46(6), 801-817.
- Saebi, T., Foss, N. J. & Linder, S. (2019). Social entrepreneurship research: Past achievements and future promises. *Journal of Management*, 45(1), 70-95. <https://doi.org/10.1177/0149206318793196>.
- Saldaña, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). London, England: SAGE.
- Saunders, M., Lewis, P. & Thornhill, A. (2012). *Research methods for business students*. (6th ed). England: Pearson Education Limited.
- Sigala, M. (2019). A market approach to social value co-creation: Findings and implications from “Mageires” the social restaurant. *Marketing Theory*, 19(1), 27-45. <https://doi.org/10.1177/1470593118772208>.
- Simarasl, N., Jiang, D., Pandey, S. & Navis, C. (2022). Constrained but not contained: How marginalized entrepreneurs overcome institutional bias and mobilize resources. *Strategic Entrepreneurship Journal*, 16(4), 853-888. <https://doi.org/10.1002/sej.1438>.
- Stone, D., Porto de Oliveira, O. & Pal, L. A. (2020). Transnational policy transfer: the circulation of ideas, power, and development models. *Policy and Society*, 39(1), 1-18. <https://doi.org/10.1080/14494035.2019.1619325>.
- Spieth, P., Schneider, S., Clauß, T. & Eichenberg, D. (2019). Value drivers of social businesses: A business model perspective. *Long Range Planning*, 52(3), 427-444. <https://doi.org/10.1016/j.lrp.2018.04.004>.
- Tracey, P., Phillips, N. and Haugh, H., 2005. Beyond philanthropy: Community enterprise as a basis for corporate citizenship. *Journal of business ethics*, 58, pp.327-344. DOI 10.1007/s10551-004-6944-x.
- Tsilika, T., Kakouris, A., Apostolopoulos, N. & Dermatis, Z. (2020). Entrepreneurial bricolage in the aftermath of a shock. Insights from Greek SMEs. *Journal of Small Business Entrepreneurship*, 32(6), 635-652.
- Wang, X., Yuen, K. F., Wong, Y. D. & Li, K. X. (2020). How can the maritime industry meet Sustainable Development Goals? An analysis of sustainability reports from the social entrepreneurship perspective. *Transportation Research Part D: Transport and Environment*, 78, 102173. <https://doi.org/10.1016/j.trd.2019.11.002>.
-

Williams, T. A., Nason, R., Wolfe, M. T. & Short, J. C. (2023). Seizing the moment—*Entrepreneurship Journal*, 17(1), 3-18. <https://doi.org/10.1002/sej.1456>.

Yin, R. K. (2013). *Case Study Research: Design and Method*. (5th ed). Thousand Oaks, CA: Sage.

Zhu, W., Zhou, J., Lau, W. K. & Welch, S. (2020). How harmonious family encourages individuals to enter entrepreneurship: A view from conservation of resource theory. *International Journal of Conflict Management*, 31(3), 333-351.

SSIRC 2023-061**THE EFFECTS OF SHARIAH ON SUCCESSION IN SMALL MUSLIM FAMILY BUSINESSES****R. Roberts**

University of Johannesburg, South Africa

R. Venter

University of the Witwatersrand, South Africa

ABSTRACT

Islam's relationship with Entrepreneurship had been since the dawn of Islam 1400 years ago and still is. As Entrepreneurship is the default economic model of Islam and defector economic system of the Western world. For example, it was found that 75% of influential Americans believe that entrepreneurship will be the defining trend of the 21st century. In addition, over the past 17 years, there has been a renewed interest in family business research (Farrington, 2016; Schulze and Gedajlovic, 2010). Elfakhani and Ahmed (2013, p.52) found that 'the attitudes and values of a society' played an important role in entrepreneurial development as it affected the context within which entrepreneurial actions happen. The findings were collected from a purposive random sample interviewing approximately 20 Muslim owned small- medium enterprises in Johannesburg, South Africa. Hence, the researcher used CAQDAS software, ATLAS.ti/9. A structure by Saldana (2009, 2015,14) and using Interpretative Phenomenological Analysis, IPA, which produced, the following themes: - Business practices and Shariah. Personal history; Islamic banking, Quality, Zakat- alms giving; Succession, Female entrepreneurship; Family role models and COVID -19 response. There were marked interrelationships between themes. More studies were needed about the Islamic entrepreneurship and the succession processes applied in Islam. Most entrepreneurs have the desire to achieve successful business ventures. In practice parents of these family firms could introduce formal in-service educative programs for their successors to educate and prepare them for their roles to lead these complex businesses. Recommendation: They may need to establish an ad hoc board of directors or start an ad hoc family office to manage and implement management systems during these transitions and exit strategies for the successes.

KEYWORDS: Entrepreneurship, family business, Islamic entrepreneurship, Shari'ah law, succession

1. INTRODUCTION

Family businesses are commonplace, especially in emerging economies such as South Africa. For this reason, this study explored succession transitions within small Muslim family businesses, some of which may apply Islamic or Shariah laws, practices, and activities to regulate their businesses. Therefore, the main aim was to explore the effects of Shariah law on small Muslim family businesses and to highlight novel insights into the succession process. Furthermore, theorists have

suggested that more research should be conducted on family business in general. Benavides-Velasco et al. (2013, as cited in Farrington & Jappie, 2014) note that the future of the field, including family entrepreneurship, “depends on a deeper knowledge of the past and it must build on ... previous work” (p. 19).

In addition, owing to the dynamic nature of these types of business, theories about family business, such as agency, stewardship, and socio-emotionality, may be used to explain these firms’ behaviour and governance. Extant literature provides information about these commonly used theories. Such studies may illustrate the current situation and provide a synthesis of theories to direct future studies in family firms (Daspit et al., 2016; Madison et al., 2016).

1.1.Problem Statement

Even though there has been an increased focus on family-based business research, there is a marked lack of research on these types of business in the African and South African context. These small businesses have been cited as important to the South African economy, and the impact of their high failure rates should be better understood to tackle and mitigate the challenges they face (Nieuwenhuizen, 2022). Furthermore, the prevailing homogeneous view of family businesses in research creates a gap in that there is a lack of understanding of the specific realities and challenges faced by family businesses in certain contexts. One such context is Muslim-owned family businesses in South Africa. The effects of religion or Shariah on business knowledge should be investigated to add to the general body of knowledge.

1.2. Research objectives

This study aimed to gain a deeper understanding of Muslim family businesses with specific reference to the effects of Shariah on these businesses. The specific objectives of this study in support of the research question are:

- To explore how Islam, through entrepreneurship within the family business, has the potential to offer or provide a parallel or identical approach to the development of entrepreneurship.
- To describe the effects of Shariah principles on the family’s involvement in the succession processes.

Research Question: How are family business succession plans, management and operations affected by Islamic laws?

2. LITERATURE REVIEW

2.1.Theoretical framework

Previous studies have noted that entrepreneurship has existed for 1,400 years and continues to thrive because entrepreneurship is the default economic model of Islam and the de facto economic system of the Western world. A Global Entrepreneurship Monitor (GEM) report of 2022 mentions that entrepreneurial activity or entrepreneurship is an act of starting and running a new business venture, that is, not just thinking about it or intending to start, but actually allocating resources to get a new business off the ground (Bowmaker-Falconer & Meyer, 2022).

Two main sources of Shariah law are based on the Quran (Islam's holy book) and the *sunnah* (the words and example set by the Prophet Muhammed; peace be upon him). Figure 1 displays a schematic model of Islam with a specific emphasis on the interrelationship of Islam and Shariah laws, specifically business practices.

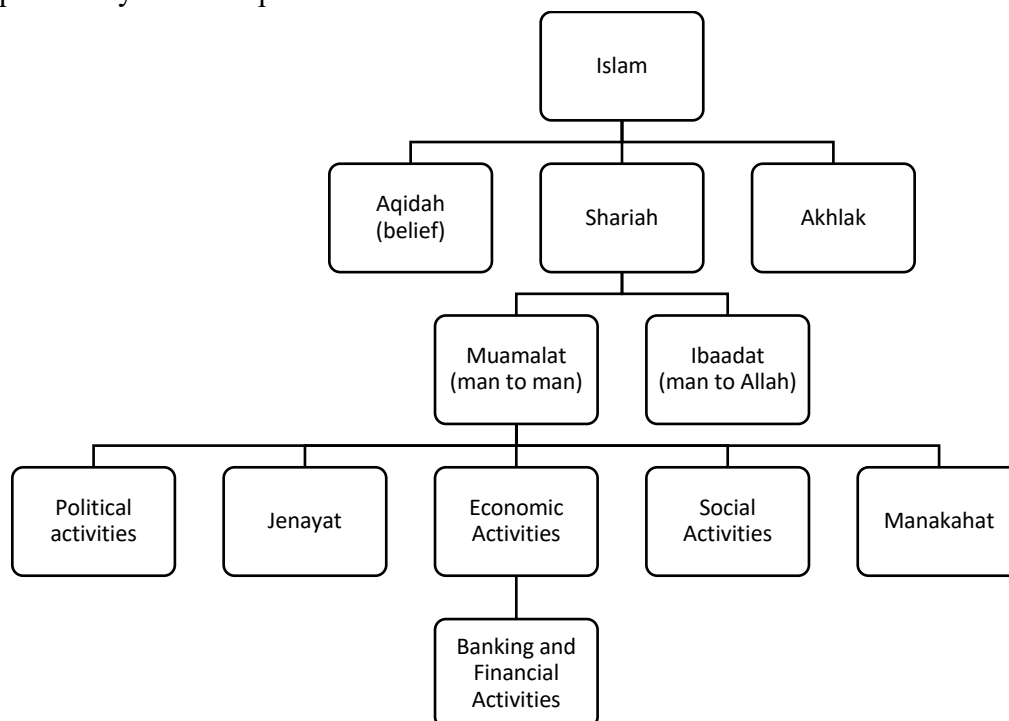


Figure 1: A Schematic representation of Islam and Shariah

Source: Authors' elaboration.

Furthermore, Shariah law is based on compassionate justice. It consists of six main principles. The first is the reservation of faith. This principle focuses on aspects associated with worshipping the creator and ensuring that people give His rights to Him alone without associating another in His worship.

Second is the preservation of life itself. Life is sacred in Islam, as Allah (سبحانه وتعالى) states: "whoever kills a soul unless for a soul or corruption [done] in the land – it is as if he had slain mankind entirely. And whoever saves one – it is as if he had saved mankind entirely" (Quran 5:32). This means that the unlawful taking of any life is forbidden, including suicide, murder, or any other form of killing or terrorism. Even assaulting another or harming them in any way is not permitted. The integrity of life extends even to animals, so unnecessary pain or suffering inflicted upon animals is not permitted under Shariah.

The third principle is the preservation of intellect. Intellect is cherished in Islam, and all people, both men and women, are given the right under the Shariah to an education and mental development to benefit the individual and society. It also means that anything that harms the intellect is prohibited, for example, drugs and intoxicants that suppress the intellect and harm the person.

Fourth is the preservation of lineage (therefore, succession is mandatory in Islam). The entrepreneur's heritage and family are important in the Shariah context. A person's identity is strong; it is a product of where they came from. The lineage is so important that a wife in Shariah should not take the family name of her husband; rather, she keeps her father's name, even after marriage, to show her lineage. The children take their father's name as their lineage. Even adopted children retain their family names to keep preserve the identity of their lineage.

The fifth principle is the preservation of honour. Anything leading to the harming of a person's honour is not permitted in the Shariah. Therefore, slandering or backbiting about a person is not permitted. This is part of the moral code of Islam: a person's honour and their property are sacrosanct and may not be taken or impugned by another.

The sixth principle is the preservation of wealth and property. An individual's property and wealth are considered sacrosanct and may not be taken by force or coercion by another. As a part of preservation of property, the charging and earning of interest (*riba*) and usury (lending money at high interest rates) are prohibited under Shariah, just as it was originally in the Bible (therefore, property and wealth rights were adapted).

Shariah laws are divided into three main levels and origins, as illustrated in Figure 2. In brief, the three levels of Shariah are (a) the essentials (*dharuriyat*), (b) necessities (*hajiyyat*) and (c) comforts (*tasiniyyat*). Any Muslim business must sequentially fulfil these three levels or main objectives of Shariah. First and foremost, they should produce goods and services that meet the basic needs of society.

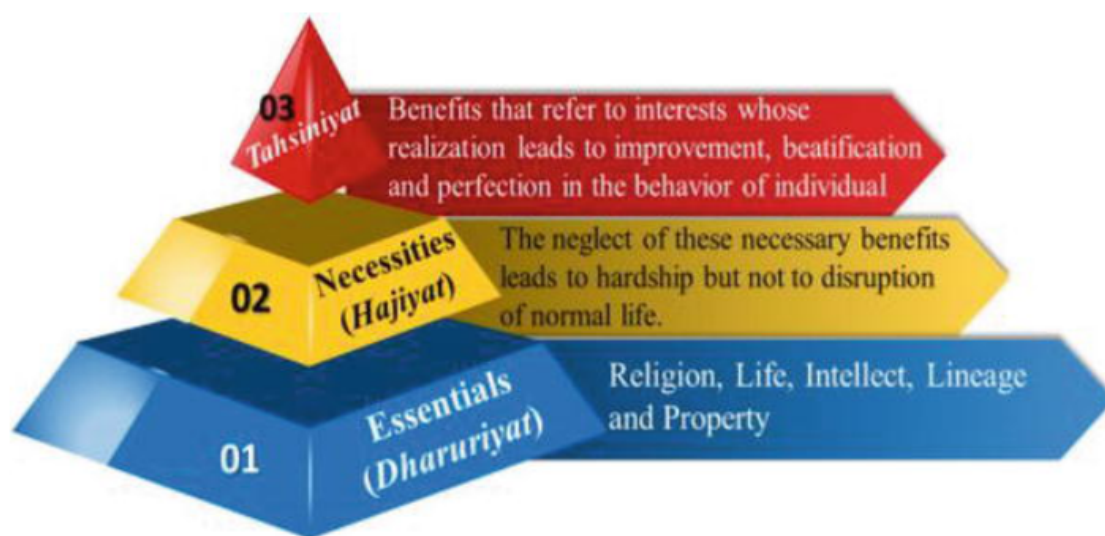


Figure 2: Classification of human need in Shariah

Source: Abdullah and Azam (2020)

Building upon the literature, this paper also discusses some facets of family business entrepreneurship. Broader theory about the role of family entrepreneurship and its overlap with

Shariah will be discussed. As has been noted, Islamic family entrepreneurship, both in general and in this specific context, has been skewed through a Western lens.

Furthermore, the authors propose that in Islam, Muslims value the extrinsic value or virtue of work. Entrepreneurship is the default economic system for all Muslims; therefore, entrepreneurs must use God-given resources to pursue economic opportunities. They must embody Shariah as it provides for their needs, and they should adhere to Islamic traits when creating or maintaining businesses (Henley, 2015).

Indeed, it can be ascertained that the effects of Shariah principles or objectives are embedded at the core of the study, and they illustrate how religion becomes the core driver in these businesses. Shariah laws guide the entrepreneurs. The pursuit of wealth must be accompanied by intention, means, management and usage. Therefore, Islam has a holistic understanding of entrepreneurship; this facet is often lacking in Western theories, where the aims are profit and maximising wealth-creation for the shareholders only (Ramadani et al., 2015; Vargas-Hernández et al., 2014).

For example, in Islam, the non-family employees and other workers should have values that extend beyond merely work, as they “see it as their God-given duty to service society first”, which is the bedrock of the Islamic work ethic. Kriger and Seng (2005) adequately sum it up that “Muslims’ economic life is thus seen as a means to a spiritual end, where prosperity means the living of a virtuous life”. Another example would be the importance of the way in which “finance” is defined in Islam, which has implications for succession in family businesses. In Western culture, it is just the exchange of a product or a service. In Islam, however, finances ought to “function as a measure of value” (Ismail, 2006, p. 9), as opposed to the view that money is a commodity. Muslims believe that Allah is the absolute owner of wealth. In the Quran (the major source of Shariah laws) it is stated that Allah created sufficient wealth in abundance for all of humankind.

In South Africa, family-owned Muslim businesses would not necessarily be run differently based on the single aspect of religion only. The focus should be on how religion is interpreted in each cultural context. Accordingly, Moosagie (2016) states that Islamic entrepreneurship may indeed involve management practices like Western systems. Islamic entrepreneurship also incorporates movement toward innovation and growth, encouraging abandoning archaic business practices and creating space for new processes and evolved administrative thinking (Ramadani et al., 2015). Ghoul (2015) has furthermore stated that Islam promotes trade.

Family businesses are established as legitimate entities in the 21st century. They are still the most common form of business in the world. Kraus et al. (2011) found that family businesses accounted for the largest percentage of economic activities in the USA (74%) and in Western Europe (62%). It follows that the businesses referred to in these studies were from the USA or Europe, and the foregoing research therefore excludes family businesses in emerging countries such as South Africa (Farrington & Jappie, 2016). Family business research in African and South African contexts is extremely limited.

In South Africa, a family business can be defined as a business in which the majority of votes are held by the person who established or acquired the business (or their spouses, parents, child, or child's perfect heirs); at least one representative of the family is involved in the management or administration of the business; and in the case of a listed company, the person/s who established or acquired the business (or their families) possesses 25% of the right to vote through their share capital and there is at least one family member on the board of the company. (Brink, 2014)

Family business research has evolved significantly over the past three decades. Tagiuri and Davis (1982) first developed the three-circle model of the family business system (Farrington et al., 2016). After 37 years, family business scholars Sharma and Davis (2018) reviewed this model to account for family business interactions. Their model distinguished between the ownership and management subsystems within the business circle because some individuals are owners but not involved in the operations. In contrast, others may be managers but do not control shares. This new model (see Figure 3) depicts the family business as a complex system comprising three overlapping subsystems: business, ownership, and family (Bird et al., 2002; Farrington et al., 2016). Figure 3 illustrates the unique dynamics and fine balance of family businesses. There are seven unique interwoven and interdependent groups, all with their own perspectives, needs and goals.

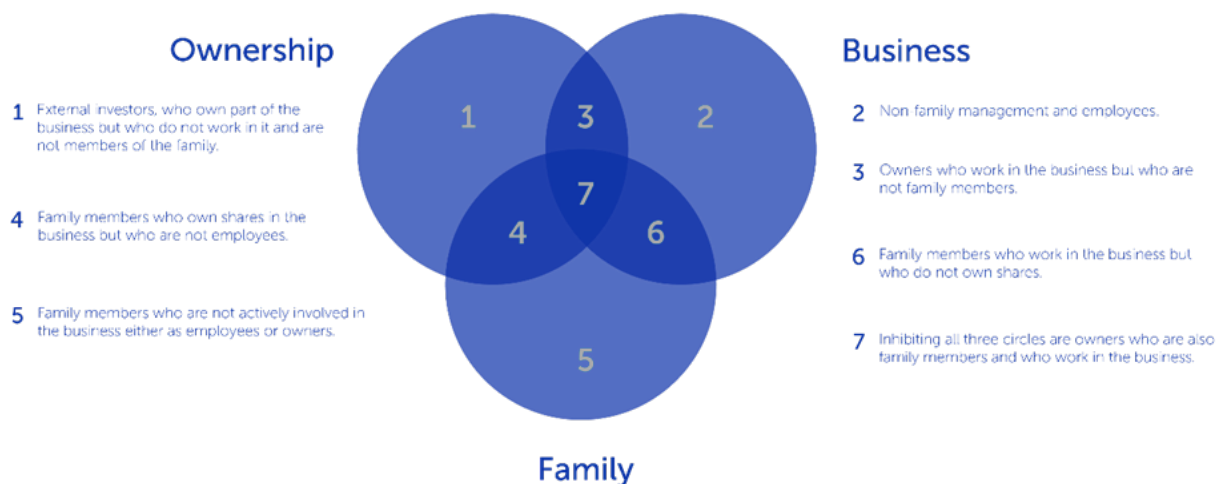


Figure 3: The Three-Circle Model of Family Business

Source: Sharma and Davis (2018)

In South African studies by Venter and Farrington (2009) and Farrington (2016), the authors found that family businesses could be either small to medium enterprises (SMEs) or large firms. The authors also stated that most international firms operating in OECD countries were family owned and managed, and 80% to 90% of the SMEs in these countries were family-owned businesses. Family businesses differ from non-family businesses on many levels, such as their terms of family involvement, legal form, age, size, scope, and industry (Chrisman et al., 2003; Kraus et al., 2011; Melin et al., 2014, as cited in Farrington, 2009).

Visser and Chiloane-Tsoka (2014) made several recommendations for changing the operational output of these entities. First, diversity should be inculcated into the strategic direction of the firms. Second, the succession debate is crucial for the longevity of the firms. Third, the role of the CEO is important. Women are included in these family businesses in various roles, such as running the business, for emotional and family support, to control, make decisions and manage other aspects.

Furthermore, Kavas et al. (2017) highlighted that the “lack of religion in organisational life” was rooted in separated thesis, meaning that the two had different aims in society. They noted that the assertion that family businesses have their own aims may well be contested. In addition, the effects of Shariah may provide a deeper understanding of the behaviour of contemporary organisations with important insights from management theory and practice (Kavas et al., 2017).

Floris and Argiolas (2022) recently studied the effects of spirituality, religion and succession in their systematic review about the intersection of spirituality and the succession processes within family firms. They created a conceptual model comprising the following themes: (a) the *spiritual context* and its sub-themes *spirituality and religion* and *spirituality’s cultural and geographic context*; (b) *spirituality and values*; (c) *spiritual motivation*; (d) *spiritual development*; (e) *spiritual diversity* (see Figure 4).

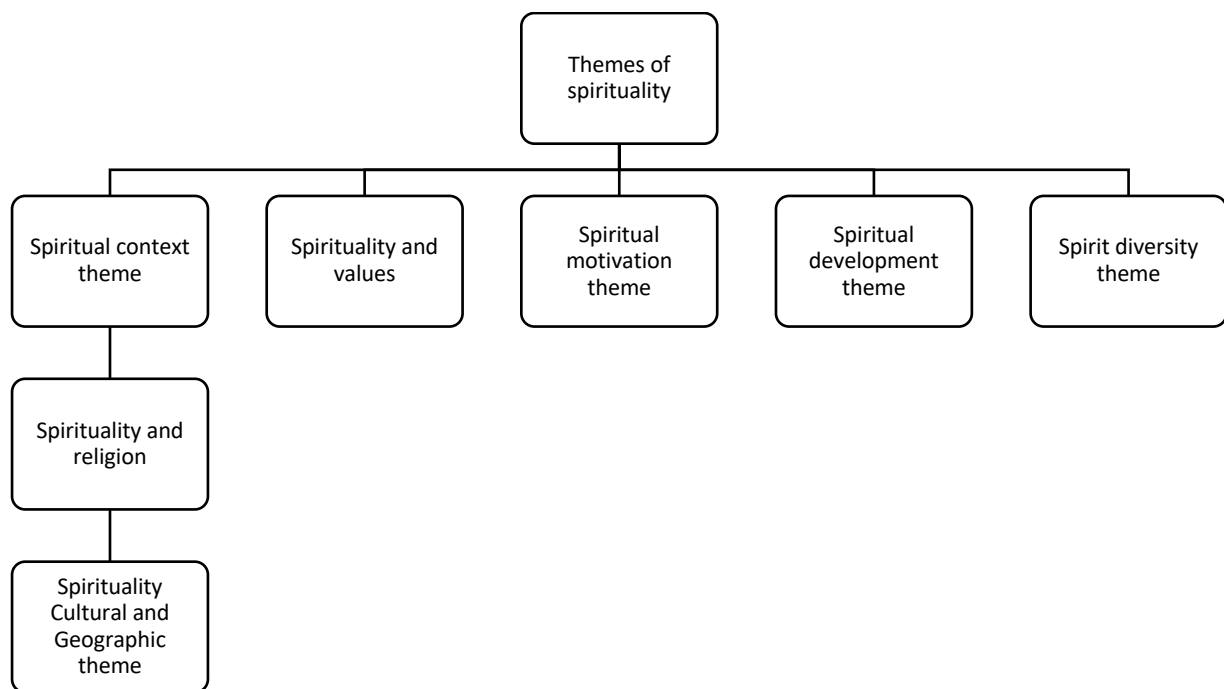


Figure 4: A graphical representation of the spirituality themes

Source: Floris and Argiolas (2022)

A similar study about family business performance in SMEs in Malaysia identified four distinct factors that affect an SME’s performance: (a) the nature and shared challenges of family business and SMEs; (b) the nature and challenges of succession planning; (c) factors influencing succession planning, including the relationship between family and business and the preparation level of the

heirs; and (d) succession planning and the performance of the family business. The last factor refers to the firm's economic management, which the incumbent must be able to master. The authors have found that older firms have manifested much malfeasance. Newer successors must therefore be well prepared (in all business areas) for the post and share common values with the core family members, especially those across generations (Mozhdeh et al., 2016). In summary, the authors concluded that the preparation level of the heirs – hence the need for work experience outside the business – is more critical than just education. So, a positive relationship between family and business members correlates with high performance. They also suggested that families should budget properly to facilitate a smooth transition. The Malaysian government has enacted five policy changes to assist this sector and society, such as monetary transfers to improve family businesses' money management (Mozhdeh et al., 2016).

3. METHODOLOGY

The present research was conducted from an interpretive paradigm and followed a qualitative methodology. The interpretive case-study approach was used to explore a single phenomenon (the case) in a natural setting using a variety of methods to obtain in-depth knowledge (Bowen, 2005; Collis & Hussey, 2009).

Ethical clearance was obtained from both institutional ethics committees. The researchers collected data through semi-structured interviews. The data were obtained from a purposive random sample of 20 Muslim family-owned SMEs that had been operating for at least five years. All participants were based in Johannesburg, South Africa. The reason for the selection of the site was twofold, both for practical considerations: (a) the researchers had access to this sample and (b) to overcome limitations because of the COVID-19 pandemic. All the participants provided their informed consent. After 20 interviews the study reached saturation point. All the usable data were then independently transcribed from audio to text.

The researchers used interpretative phenomenological analysis (IPA; Vagle, 2018) and a structure by Saldaña (2009, 2015), aided by ATLAS.ti. To ensure data quality control, a second independent coder also analysed the data. A codebook was created of a prefix code list of 50 codes; 20 codes were used from the researcher list and 30 codes from the independent coder's list, which were used to develop the final themes of the findings.

4. FINDINGS AND DISCUSSION

The number of years that the businesses in the study had been in existence ranged from 6 to 65 years (as of 2021). The number of active family members employed in these businesses ranged between one and six per business. The total number of non-family members employed in the businesses ranged from two to 290 employees. It seemed that more non-family members than family were employed in these businesses. This indicated that the broader scope of the family business was to provide employment to the broader community, which agrees with the Shariah principle of social cohesion.

In addition, the findings were categorised and linked to the literature under seven themes according to their frequency in the data set, as shown in Table 1. The most important findings were the application of business practices of Shariah, the family's personal history, Islamic finance, and banking; quality *zakat* (almsgiving), intergenerational planning, the role of females and female entrepreneurship. One theme, business practices, was linked to the research objectives.

Table 1: Themes and frequencies

| Theme | Frequency (<i>n</i>) | Frequency description |
|---|------------------------|-----------------------|
| 1 Business practices and Shariah | 53 | Extremely high |
| 2. Personal history | 17 | Medium |
| 3. Islamic banking | 13 | Medium |
| 4. <i>Zakat</i> (almsgiving) | 20 | High |
| 5. Succession | 36 | Remarkably high |
| 6. Family role models and female gender roles | 20 | High |
| 7. COVID-19 response | 17 | Medium |

Source: Own compilation

Succession was related to personal history, family role models and, most importantly, Islamic finance, as the incumbent would be the key player in the family dynamics. The person who succeeds the previous head of the business would be personally responsible for the success of the family business. Other themes, such as personal history, were peripheral to succession. Most owners had mixed views about succession and the application of Shariah; for example, the participants alluded that the business would continue if they could work.

Interviewee 8 stated, "One works till the end of your life" and "my siblings are in a similar position", the "similar position" being that they had no succession plan.

In this case, although the second generation ran the family business, most of the next generation had pursued other "more interesting" professions. The current owners lacked a coherent succession plan for this business. The owners said that they would probably eventually sell their business. In other words, they could not fulfil one of the main principles of Shariah, namely, the preservation of lineage.

Interviewee 10 remarked that their succession "depended upon the other children who showed more interest in running it than the first-born children". In this case, the line of progeniture would not be applied. This is profound, as in Islamic culture and tradition the first-born son is the natural successor in the family business.

In this case, the owner had two daughters, the elder of whom was already practising her teaching profession. The younger had pursued higher education. My observation was that they would manage the family business. In this case, the Shariah principle of religion and lineage would be applied. The literature supports this notion in mentioning that factors influencing succession include

women's running the business, offering emotional family support, controlling, making decisions, and managing various other aspects (Visser & Chiloane-Tsoka, 2014). This may be explained by social and emotional wealth theory, by which the family offers emotional support to its members, especially the successor (Floris & Argiolas, 2022), or the stewardship theory, which suggests that family members act as stewards of the business and the successor ought to be one who leads with their religious values. This also proves that religious practices or values are inculcated in the family long before they enter the business (Gumusay, 2015; Rizk, 2008).

Interviewee 1 also said that they “were happy [their] children had grown up with all their values intact”. They furthermore stated that they felt that “now that they had their own professions, they must be successful”.

In contrast, other interviewees indicated they wanted their children to enter other companies first, to gain experience, skills, and competencies. While some children fail to plan. For example, one participant explained how the siblings wanted to pursue careers first and then enter the business. This concurred with the literature on preparedness for new roles.

Interviewee 4 said about succession: “So my son went overseas to work for [Company X]; the young one in matric, she wanted to go into health sciences ... ask my wife, in five years we will give the business to my son.”

The findings in this study may be explained by or even reinforce current literature. The researchers' observations confirmed theoretical assumptions about business, family and the effects that their spiritual values, culture and creed have on succession. As families need business continuity, they seek to fulfil their understanding of the Shariah principles (see the three levels of the conceptual pyramid in Figure 2). These findings also confirmed that these families embodied their Islamic work ethic with its tenets and values, such as justice, thus also informing Islamic entrepreneurship (Gumusay, 2015; Rizk, 2008).

In most cases, the succession process was an informal process, part of the “hidden culture” within the family only. The families emphasised that their Islamic values motivated them to believe and behave as “spiritual capitalists first”, then they would be in line for succession.

Some scholars have derived new conceptual models to explain and suggest practical applications about other factors that could also affect the process, such as polygamy. This was to align a comprehensive succession process theory (Buckman et al., 2019; Rice, 1999; Rizk, 2008).

In addition, some scholars have conducted similar studies about incumbent–successor exchanges and applying social-exchange tenets to firm succession (e.g., Daspit et al., 2015). This is reinforced by Handler (1991). These authors concluded that effective succession depended on the level of mutual respect and understanding between the pair involved.

Finally, effective succession is a function of stakeholder satisfaction and organisational performance (Sharma et al., 2001). Therefore, the above findings about succession are supported by scholars of Islam who posit that Shariah values plus *Akhlaq* (respectful character) and belief in God; see Figure 1) would render the succession effective (Ghoul, 2015).

Leading family business scholars have made many suggestions as to the reason for increased attention to and research in the field. Family businesses are important. Crafting any review article is an artistic and scientific endeavour, and there is a need for increased rigour in the development of the field. Published reviews have highlighted assumptions and implications drawn from specific fields. In short, the research has explored the relationship between family business and entrepreneurship, including specific topics such as unique family influence, family goals and values, and temporal issues. The work cited by Madison et al. (2015) recognised theories about family businesses, such as the resource-based view, stakeholder, social capital, SEWT, identity and behavioural theories.

In addition, Meier and Schier (2016) explored the dynamics of the early succession stage, finding it to be the most important in preparing the firm and the family-facilitated succession. They found the role of stewardship, via altruism at the family branch level, and collaborative processes between all players explained, at the least, the observed outcomes – shared vision, ownership, and control.

Family heterogeneity is another element in the jigsaw puzzle of the family business system. Scholars have postulated that the integration of family differences in theory building, and empirical testing is still in its infancy. They found that family heterogeneity was considered a problem that needed addressing because theorists used general management theories to explain family businesses instead of using family-business-specific theories.

The main limitations in this research are as follows: First was the researcher's personal involvement in the data-collection process – should the researcher reveal their personal feelings, experiences, or beliefs? Peshkin (1988) suggested the researcher take a “subjective audit”. Second, the researcher's own research interpretations might be proven incorrect with further evidence. The third is the threat to trustworthiness, as respondents are biased. The researcher must state how they will reduce these biases and their effects on data collection. The researcher should use documentary reviews, which would provide a background check and supply leads for asking more or new questions. Fourth, although less of a limitation, the COVID-19 pandemic influenced the setting, as the regulations in force at the time had to be followed.

5. CONCLUSION

In summary, the owners of businesses in this study applied Shariah laws on an ongoing process, (during many situations, especially during succession transitions). The study has the following management implications for practice: First, these types of business must prioritise and strategies this earlier in their business contexts. This may lead to cohesion and harmony among all stakeholders. Second, they should also have a public-relations strategy to complement this process.

The study suggests the following policy implications: First, these businesses must engage their local city councils, as these owners must comply with the Occupational Health and Safety Act. Second, higher education institutions might also include Shariah law business practices and knowledge in their curricula. Third, local imams (priests/Islamic jurists) could participate in their board of directors or family councils to offer theoretical Islamic knowledge about these transitions or other matters that require this level of knowledge. An example would be the case of an owner in a polygamous marriage.

In addition, the South African government is responsible for providing an enabling environment and solid infrastructure to prevent the current crisis of load-shedding and other ills. Therefore, through their SMEs policies, they may assist these businesses with tax breaks, subsidies, or training. For example, they could allow businesses to claim some refunds from the receiver of revenue (SARS) for their donations or zakat given to the public or family members.

Based on the findings, the researchers make the following recommendations. This study was about family businesses but with a slant to religion only. Therefore, a quantitative study with a larger sample size in other cities may be conducted to test some of the variables mentioned.

Succession planning in these types of business is a multi-factor process, especially when it involves spirituality, ethics, morals, or implicit laws from the successors. This process therefore also requires management reengineering because, besides Shariah applied to their entrepreneurship, they would eventually have innovated the business to remain competitive in this environment.

The Shariah laws described above are central to understanding the complex dynamic of Muslim family business processes such as succession, ownership, and control. The final recommendation is therefore that more studies in South Africa may be conducted to do justice to this enterprising field of Muslim family entrepreneurs and entrepreneurship studies.

REFERENCES

- Abdullah, M. A., Kedah, Z., & Anwar, M. A. (2015). Effects of Islamic entrepreneurship mind programming on entrepreneurial performance through entrepreneurial motivation. *International Journal of Business and Globalisation*, 15(3), 294–312. https://ijmbr.srbiau.ac.ir/article_8_0.html
- Bird, B., Welsch, H., Astrachan, J. H., & Pistrui, D. (2002). Family business research: The evolution of an academic field. *Family Business Review*, 15(4). www.up.ac.za/media/shared/643/ZP_Files/2016/Papers/small_business3_full.zp97888.
- Bowen, G. A. (2005). Preparing a qualitative research-based dissertation: Lesson learned. *The Qualitative Report*, 10(2), 208–222. <https://nsuworks.nova.edu/tqr/vol10/iss2/2/>
- Bowmaker-Falconer, A., & Meyer, N. (2022). *The Global Entrepreneurship Monitor (GEM) South Africa: 2021/2022 Report: Fostering entrepreneurial ecosystem vitality*. Stellenbosch University, South Africa.

-
- Brink, A. (2014). *Family Business Survey: South African edition 2014/2015*. PwC. <https://www.pwc.co.za/en/assets/pdf/south-african-family-business-survey-2014.pdf>
- Buckman, J., Jones, P., & Buame, S. (2019) Passing the baton. A succession-planning framework for family-owned businesses in Ghana. *Journal of Entrepreneurship in Emerging Economies*, 12(2). <https://doi.org/10.1108/JEEE-11-2018-0124>
- Collis, J. and Hussey, R. (2009) *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. 3rd Edition, Palgrave Macmillan, Basingstoke
- Farrington, S. (2016, July 25). Inaugural lecture delivered at the Nelson Mandela Metropolitan University. Port Elizabeth, South Africa.
- Farrington S. M., & Venter, E. (2009). *The influence of family member and business attributes on the success of sibling-owned family businesses*. 21st Conference of the Southern Africa Institute for Management Scientists (SAIMS). <https://nmmubstest.nmmu.ac.za/sites/default/files/The%20influence%20of%20family%20member%20%26%20business%20attributes%20on%20the%20success%20of%20sibling-owned%20family%20businesses.pdf>
- Floris, M., & Argiolas, G. (2022). The intersection of spirituality and succession in family firms: a systematic literature review and research agenda. *Italian Journal of Management*, 40(2). <http://dx.doi.org/10.7433/s118.2022.06>
- Ghoul, W. A. (2015) Entrepreneurship within the framework of Shari'ah. *International Journal of Business and Globalisation*, 15(3), 262–272. <https://doi.org/10.1504/IJBG.2015.071904>
- Henley, A. (2015). Does religion influence entrepreneurial behaviour? *International Small Business Journal*, 35(5). <https://doi.org/10.1177/0266242616656748>
- Kavas, M., Jarzabkowski, P., & Nigam, A. (2017). Islamic family business: the constitutive role of religion in business. *Journal of Business Ethics*, 163(4), 689–700.
- Kraus, S., Harms, R., & Flink, M. (2011). Family firm research: Sketching a research field. *International Journal of Entrepreneurship and Innovation Management*, 13(1), 32–47. <https://doi.org/10.1504/IJEIM.2011.038446>
- Kruger, M., & Seng, Y. (2005). Leadership with inner meaning: A contingency theory of leadership based on the worldviews of five religions. *The Leadership Quarterly*, 16(5), 771–806. <https://doi.org/10.1016/j.leaqua.2005.07.007>
- Meier, O., & Schier, G. (2016). The early succession stage of the family firm: Exploring the role of agency rationales and stewardship attitudes. *Family Business Review*, 29(3) 256–277. <http://dx.doi.org/10.1177/0894486516646260>
- Moosagie, B. (2016). What is the role of Shariah in human resource management? *Muslim Views*, 30(9), 9. https://issuu.com/muslimviews/docs/mv_september_2016
- Mozhdeh, M., G. Abdul Rashid, S. Z., Vakilbashi, A., Mohd Zamil, N., & Seng, Y. W. (2016). Succession planning and family business performance in SMEs. *Journal of Management*, 36(2), 330–347.
- Nieuwenhuizen, C. (Ed.). (2020). *Business cases from South African companies*. Juta. https://juta.co.za/catalogue/business-cases-1e_28231
-

- Peshkin, A. (1988). Understanding complexity: A gift of qualitative inquiry. *Anthropology and Education Quarterly*, 19(4), 416–424.
- Ramadani, V., Dana, L. P., Ratten, V., & Sudush, T. (2015). The context of Islamic Entrepreneurship and business: concept, principles, and perspectives. *International Journal of Business and Globalisation*, 15(3), 244–261. <http://dx.doi.org/10.1504/IJBG.2015.071906>
- Rice, G. (1999). Islamic Ethics and the implications for business. *Journal of Business*, 18, 345–358.
- Rizk, R. R. (2016). Back to basics: An Islamic perspective on business and work ethics. *Socially Responsible Journal*, 4, 246–254.
- Saldaña, J. (2013). *The coding manual for researchers* (2nd ed.). SAGE.
- Sharma, P., & Davis, J. A. (2018). *The Future of the Three-Circle Model: A conversation between Pramodita Sharma and John Davis*. FFI Practitioner. <https://ffipractitioner.org/the-future-of-the-three-circle-model-a-conversation-between-pramodita-sharma-and-john-davis/>
- Vagle, M. D. (2018). *Creating phenomenological research* (2nd ed.). Routledge.
- Vargas-Hernández, J. G., Noruzi, M. R., & Sariolghalam, N. (2014). An exploration of the effects of Islamic culture on entrepreneurial behaviours in Muslim countries. *Journal of Asian Social Science*, 6(5), 120–127. <https://doi.org/10.5539/ass.v6n5p120>
- Visser, T., & Chiloane-Tsoka, E. (2014). An exploration into a family business and SMEs in South Africa. *Problems and Perspectives in Management*, 12(4).

SSIRC 2023-063

THE IMPACT OF SUPPLIER MANAGEMENT PRACTICES ON SUPPLIER PERFORMANCE AT ESKOM

T. Sebola

UNISA Graduate School of Business Leadership, South Africa.

I. Langton

Vaal University of Technology, South Africa

C. Mafini

Vaal University of Technology, South Africa

ABSTRACT

Eskom, the national electricity supplier in South Africa, faces many supply chain management (SCM) challenges that limit its performance. Applying supplier management best practices provides a platform for generating ground-breaking performance solutions for various business cases. The purpose of this study was to investigate the impact of supplier management practices on supplier performance at Eskom in South Africa. The study followed a quantitative survey method to collect data from 293 SCM professionals drawn from Eskom. The proposed relationships between the study constructs were tested using Pearson's Correlations and Regression Analysis. Supplier selection and supplier collaboration exerted a positive impact on relationship strength. Furthermore, buyer-supplier relationship positively predicted supplier performance. The study concludes that supplier management practices such as supplier selection and collaboration are critical in improving the strength of the relationship between buyers and suppliers. The ultimate result is optimum supplier performance within the SCM processes at Eskom. The study recommends the development and implementation of supplier performance improvement plans, curbing corruption, and establishing leadership that upholds corporate governance standards at Eskom.

KEYWORDS: Supply chain management; supplier management, supplier performance; supplier collaboration; buyer-supplier relationship strength.

1. INTRODUCTION

In recent years, Eskom Holdings, the National Electricity Supplier in South Africa, has been inundated with numerous supply chain management (SCM) challenges. These range from operational inefficiencies, poor procurement practices, unavailability of stock and strategic critical services, ineffective supplier relationships, weak corporate governance, and the high incidence of unethical practices (Masindi et al., 2020; Davids., 2023). It has been suggested that to overcome its SCM challenges, Eskom faces the task of adopting supplier management practices such as supplier selection (SS), supplier monitoring (SM), supplier development (SD) and supplier collaboration (SC) in the quest to enhance both supplier-buyer relationships and supplier performance. Dzaga (2023) notes that the lack of proper supplier management practices is one of the major challenges

that is breeding fraud and corruption within Eskom. It has been recommended that Eskom should become SCM responsive by embracing and implementing supplier management practices (Bowman, 2020; Masindi et al., 2020). The adoption of such initiatives is likely to boost the supplier-buyer engagement of Eskom, empowering the utility to compete with other electricity-generating entities in the world when it comes to the supplier management space (Mathu, 2021). The current study examines the relationship between supplier management practices and supplier performance at Eskom. In the past years, there has been a growing interest in the strategic significance of monitoring, collaborating, and integrating customers, suppliers as well as implementing supplier management practices (Mathu, 2021). Current knowledge involving the implementation of supplier management practices, as well as buyer-supplier relationships and supplier performance in national electricity providers in developing countries is still limited. This has provoked a requirement for a better comprehending of the nature of practice between these constructs, as growing stakeholders' uproar puts pressure on the enterprise. Efforts to find lasting solutions to these challenges are ongoing and include empirical research, focusing on various SCM practices and models. Applying supplier management best practices provides a platform for generating ground-breaking performance solutions for various business cases. The study proposes that the adoption and implementation of supplier management practices can provide the missing link to the bridge and restart the utility supplier's performance. In support of this view are various studies (Bag et al., 2021; Flepisi & Mlambo, 2021; Mathu, 2021) which propose that effective supplier management practices in organisations cascade into greater supplier collaboration and performance. Within South Africa, various studies (Bag et al, 2021; Mathu, 2021; Mofokeng & Chinomona, 2019) on supplier management practices have been conducted using different topics. However, limited evidence exists of research on the impact of supplier management practices on Eskom. The study, therefore, is intended to address these gaps.

2. LITERATURE REVIEW

2.1. Supplier Management Practices

Supplier management is the relationship that is established between a buyer and supplier subject to products being obtained and supplied into an organisation, which in turn defines the type of working relationship that should be developed with suppliers (Wang et al., 2020). Bravo et al. (2021) assert that supplier management is the process that ensures maximum value is received for the money that an organisation pays to its suppliers. It is a process that helps ensure the successful and timely delivery of goods and services by suppliers (Molinaro et al., 2022). This process includes establishing effective working relationships with suppliers, monitoring supplier performance, and resolving any problems (Juettner et al., 2020). According to Wang et al. (2020), supplier management includes identifying, assessing, and managing supplier relationships to ensure quality and timely delivery of products or services. In addition, Molinaro et al. (2022) posit that supplier management assists in reducing or eliminating supplier financial risk. It helps to ensure that the supplier meets agreed upon standards, complies with applicable laws and regulations, and provides quality products and services (Bravo et al., 2021). Moreover, a good supplier management programme can help prevent supply chain disruptions and maximise organisational productivity.

In this study, supplier management was measured through its four main practices, namely supplier selection (SS), supplier monitoring (SM), supplier development (SD) and supplier collaboration (SC), which are proposed by Chai and Ngai (2020). Below is a brief review of these practices.

2.2. Supplier selection

Supplier selection (SS) entails the choosing and evaluation of a supplier who mostly meets the requirements of the buying firm (Chai & Ngai, 2020). It is the process by which organisations identify, evaluate, and contract with suppliers (Sytch et al., 2022). Chen et al (2020) affirm that the SS process deploys an enormous number of financial resources and plays a crucial role for the success of any organisation. The main role of the SS process is to reduce purchase risk, maximise overall value to the purchaser and develop closeness and long-term relationships between buyers and suppliers (Hawkins et al., 2020). Historically, price and delivery lead times (economic based value) are the two most important criteria considered in the selection process of a supplier (Chen et al., 2020). SS plays a pivotal role in supply chain management; thus, it helps in structuring supplier bases and improving the overall efficiency of the supply chain (Chai & Ngai, 2020). A suitable SS would lessen procurement costs, improve profits, reduce product lead time, enhance the customer satisfaction, and strengthen the competitiveness (Schotanus et al., 2022). That explains why SS has become an essential focus for every procuring organisation (Chen et al., 2020). However, there is not any standard for SS, and it should be applied based on the situation. A wrong choice of the supplier could lead to losses within the supply chain, which directly affects the performance of the organisation (Sytch et al., 2022).

2.3. Supplier monitoring

A supplier monitoring (SM) process is a structured approach describing the methodology followed by firms in selecting, engaging, measuring, monitoring, and managing the performance of their suppliers (Hawkins et al., 2020). It is the process of assessing supplier performance on an ongoing basis to identify areas of improvement (Chen et al. 2020). SM involves tracking supplier performance against specific metrics and standards and using that information to make decisions about how to improve supplier performance (Sytch et al., 2022). The process is required to also identify and address performance in areas key to the success of the supply chain (Giannakis et al., 2020). Schotanus et al. (2022) established that SM improves the quality of products and services, reduces costs, and enhances effective communication between suppliers and buyers. Furthermore, Shafiq et al. (2022) affirm that SM can help build and maintain relationships with key suppliers. SM, therefore, is a critical component of the procurement process, permitting organisations to keep track of their suppliers' performance and ensure that they are meeting key metrics (Changalima et al., 2023). The ability to monitor supplier performance enables organisations to swiftly identify challenges and address them before they become more serious, saving money and time in the long run (Shafiq et al., 2022).

2.4. Supplier development

Supplier development (SD) refers to the initiatives undertaken by a buying firm designed to enhance the performance of the supplier and its capabilities (Subramaniam et al., 2020). It involves

embracing supplier expertise and aligning it to the buying organisation's business need, and, where appropriate, vice versa (Bai & Satir, 2022). The objectives for development can be relatively minor such as slight adjustments in staffing levels, or very substantial, such as the appraisal and re-launch of an entire range of critical products (Bai et al., 2023). Subramaniam et al. (2020) have expanded the concept of SD to integrate sustainability and is thus referred to as sustainable SD. Sustainable SD practices enrich traditional SD by including social and environmental objectives (Tshabalala, 2021). To give credence to this, buying firms are able to assist their suppliers in implementing environmental practices or encouraging firms to develop corporate social responsibility (CSR). A SD initiative might involve developing a supplier's business such as helping the supplier to evaluate and redesign their corporate strategy (Pedroso et al., 2021). The purpose of this might be to align the supplier very closely and on a long-term basis with the buying organisation in a strategic alliance or joint venture (Subramaniam et al., 2020). Equally, Changalima et al. (2021) noted that there may be circumstances where it is more appropriate for the buying organisation to align its corporate strategy to that of the supplier. Whatever the form of the alignment, this process may be a highly resource intensive exercise and involve, for example, a steering group and various action teams, each with action plans for allocated projects and formal reporting procedures against timescales (Pedroso, et al., 2021). Both organisations must share a mutual understanding, appreciation, and desire to achieve the objectives of the supplier development project.

2.5. Supplier collaboration

Supplier collaboration (SC) refers to a combination of the buying firm's internal resources with the capabilities and resources of its suppliers (Ukko et al., 2022). It is a strategic approach to supplier management that involves aligning suppliers and partners around the business strategy to deliver on key goals and drive mutual value in collaboration (Huo et al., 2021; Moradlou et al., 2022). If implemented correctly, SC enables an organisation to deliver exponentially more value back to the business by leveraging the untapped value sitting in its extended supplier ecosystem (Sudusinghe & Seuring, 2022). The nature of the relationship is not adversarial but a win-win situation for both parties (Sikombe & Phiri, 2019). The primary elements of SC are joint problem-solving on quality-related challenges, information sharing for the purpose of product design and manufacturing and working together on future development plans together (Sikombe & Phiri, 2019). Ukko et al. (2022) suggest that the SC strategy must be supported by the organisation's leadership, articulated by the leadership team, and driven systematically throughout the organisation top-down.

2.6. Buyer-Supplier Relationships

Buyer-supplier relationships refer to commercial transactions between organisations for the purchase and supply of goods or services (Shamsollahi et al., 2021). A long-term engagement between buyers and suppliers leads to information sharing (Alghababsheh & Galliar, 2020). Over time, this will create a more streamlined, effective supply chain that could have a positive effect on both customer service and cost reduction (Ukko et al., 2022). Buyer-supplier relationships are an important enabler for organisations to achieve their competitive advantage goals (Frempong et al., 2021; Ojha et al., 2022). These relationships can be defined in terms of the extent to which buying and supplying organisations interact collaboratively, with the objective of sharing operational and

business knowledge and expertise. Such interaction is regarded as crucial for mutual problem resolution (Shamsollahi et al., 2021). Frempong et al. (2021) further assert that buyer-supplier relationships enable supply chain partners to exchange strategic information openly, which ensures that the right products are transferred across supply chain networks.

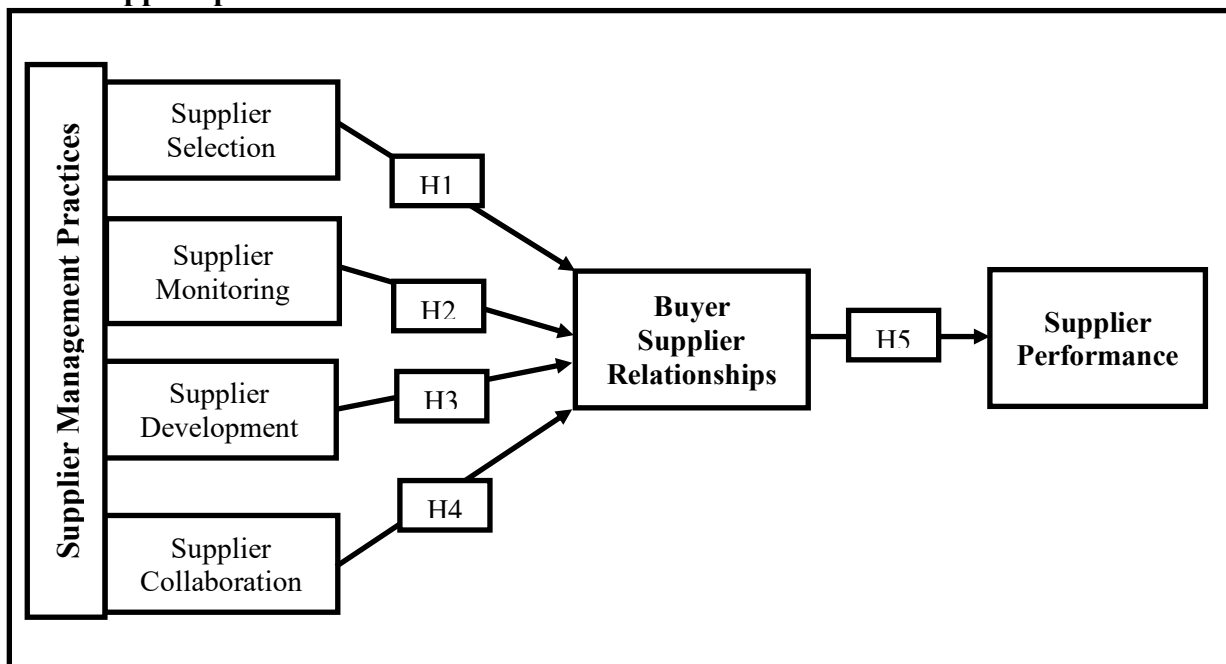
2.7. Supplier Performance

Supplier performance (SP) refers to how well a vendor supplies the goods, services and equipment to the procuring organisation as evidenced by its compliance levels to quality, delivery lead times, cost, and technical support (Benton et al., 2020; Tsunoda & Zenny, 2021). A supplier’s optimal performance enables a buying firm to reach its goals (Mohan et al., 2021). Likewise, a firm’s effort to adequately integrate its supply chain activities has a phenomenal impact on supplier performance (Mohan et al., 2021). Supplier performance of a higher quality creates better chances of maintaining the continuous flow of products supplied, which in turn leads to the improved delivery of the required level of product supply to customers (Hoque & Maalouf, 2022). It also enhances both the performance of the firm and that of the entire supply chain (Mohan et al., 2021). Better supplier performance as derived from an effective exchange of information contributes significantly to the organisational performance (Benton et al., 2020).

2.8. Conceptual framework

This study is intended to test the conceptual model in Figure 1. The model seeks to test whether the four predictor variables, namely SS, SM, SD, and SC have influence on BSR and whether the latter in turn influences SP.

Figure 7: Conceptual model for supplier management practices, buyer-supplier relationships, and supplier performance.



Close collaboration with suppliers is a characteristic of successful companies in terms of robust BSR (Ye et al., 2021). Various studies have established that supplier management practices such as supplier selection, development and collaboration have a positive influence on BSR (Ampe-N'DA et al. 2020; Bai et al., 2021; Rungsithong & Meyer, 2020). In addition, Rungsithong and Meyer (2020) posit that consistent SM has a significant impact on the coherence of the SBR. Likewise, Ampe-N'DA et al. (2020) noted that a long-term BSR is cemented by enhanced supplier management. Hence, the following hypotheses are developed for this study:

H1: Supplier selection exerts a positive influence on buyer-supplier relationships.

H2: Supplier monitoring exerts a positive influence on buyer-supplier relationships.

H3: Supplier development exerts a positive influence on buyer-supplier relationships.

H4: Supplier collaboration exerts a positive influence on buyer-supplier relationships.

2.9. Buyer-supplier relationships and supplier performance

A buyer-supplier relationship is defined as the solid and assured belief between suppliers and buyers that they both share similar vision and value of their association (Mohan et al., 2021). Such a relationship is an imperative architect in establishing sustainable collaborations, which then develop the effective supply chain process (Benton et al., 2020). Additional merits include the promotion of information sharing between suppliers and buyers, which cascades into improved supplier performance and operational processes (Hoque & Maalouf, 2022). Several studies (i.e., Benton et al., 2020; Hoque & Maalouf, 2022) found that BSR improve SP since it permits the supplier to determine their dedication and commitment in the course of their supply chain obligations. Furthermore, the SBR was also identified by Shukla et al. (2023) to be an important driver of sustainable SP in organisations. It is therefore hypothesised that:

H5: Buyer-supplier relationships exert a positive influence on supplier performance.

3. METHODOLOGY

3.1 Research design

This study adopted a quantitative approach and a cross-sectional survey design to collect data since it was intended to test associations between several organisational factors.

3.2 Sampling method

The sample consisted of 293 SCM practitioners drawn from various Eskom depots in Gauteng, Mpumalanga, Limpopo, Western Cape, and Kwa-Zulu Natal. Respondents were selected using the judgmental sampling technique since there was no single list of accessible respondents.

3.3 Data Collection

A structured questionnaire was utilised as the primary data collection tool. Data were collected between July and October 2021 using a combination of email and face-to-face surveys. Measurement scales were adapted from pre-existing studies. SS and SM were measured using questions adopted from Xu et al. (2013). To measure SD and SC, questions adopted from Krause et al. (2007) were used. Questions on BSR and SP were adapted from Hoque and Maalouf (2022).

Measurement scales in the questionnaire were presented on a five-point, forced-choice Likert scale anchored by 1=strongly disagree and 5 = strongly agree. Four hundred questionnaires were distributed and 293 were retained for use in this study, giving a 73.25 % response rate.

3.4 Data analysis

Data were analysed using descriptive and inferential statistics. The Statistical Package for the Social Sciences (SPSS version 27.0) was employed as the data analysis tool to purify the measurement scales. The EFA was followed by the testing of hypotheses using the regression and correlation analyses. As suggested by Taherdoost, (2022), research hypotheses are analysed using regression analysis, because it provides a credible estimation of the relationships that exist between dependent and independent variables.

4. RESULTS AND DISCUSSION

4.1. Sample profile

The results show that there were more male respondents (60%; n=176) compared to females. Most of the respondents (36%; n=105) were aged between 36 and 40 years. Most of the respondents were in possession of a degree (47%; n=138). The highest number of respondents were new to the company, since they had been employed for less than two years (45%; n=132). The greatest number of respondents were middle managers (30%; n=88). In terms of their occupational area, most respondents were in the procurement division (56%; n=164).

4.2. Exploratory factor analysis

An Exploratory Factor Analysis (EFA) procedure using the Principal Components Analysis (PCA) technique was run to assess the scale dimensionality. A Bartlett’s Test of Sphericity, and a Kaiser Meyer Olkin (KMO) Measure of Sampling Adequacy were first run to determine if the data were suitable for an EFA. KMO scores were higher than the required minimum of 0.5, and all results for the Bartlett’s test were significant, indicating that factor analysis was merited (Saunders et al., 2016). The resulting factor structure is presented in Table 1.

Table 1: Exploratory factor analysis results

| Construct | Items | Factor loadings | KMO & BT | Eigenvalue | Percentage variance explained |
|-----------|-------|-----------------|---|------------|-------------------------------|
| SS | SS1 | 0.744 | KMO=0.597 BT X ² =1192.699; df=18 P=0.000 | 2.788 | 68.176% |
| | SS3 | 0.851 | | | |
| | SS4 | 0.778 | | | |
| | SS5 | 0.843 | | | |
| SM | SM1 | 0.652 | KMO=0.713 BT X ² =399.876; df=15 P=0.000 | 2.611 | |
| | SM2 | 0.824 | | | |
| | SM4 | 0.629 | | | |
| | SM5 | 0.741 | | | |
| SD | SD1 | 0.683 | KMO=0.822 BT X ² =344.411; df=18 P=0.000 | 2.488 | |
| | SD2 | 0.781 | | | |
| | SD3 | 0.672 | | | |
| | SD4 | 0.581 | | | |
| | SD5 | 0.682 | | | |

| Construct | Items | Factor loadings | KMO & BT | Eigenvalue | Percentage variance explained |
|-----------|-------|-----------------|--|------------|-------------------------------|
| SC | SC1 | 0.653 | KMO=0.831 BT X ² =501.810; df=10 P=0.000 | 2.894 | |
| | SC2 | 0.731 | | | |
| | SC3 | 0.744 | | | |
| | SC5 | 0.611 | | | |
| BSR | BSR1 | 0.789 | KMO=0.745 BT X ² =379.598; df=18 P=0.000 | 2.873 | 62.312% |
| | BSR2 | 0.811 | | | |
| | BSR4 | 0.597 | | | |
| | BSR5 | 0.632 | | | |
| SP | SP1 | 0.806 | KMO=0.712 BT X ² =763.269; df=10 P=0.000 | 3.113 | 62.173% |
| | SP2 | 0.677 | | | |
| | SP3 | 0.768 | | | |
| | SP4 | 0.687 | | | |
| | SP5 | 0.812 | | | |

SS=Supplier Selection; SM=Supplier Monitoring; SD= Supplier Development; SC=Supplier Collaboration; BSR=Buyer-Supplier relationship; SP=Supplier Performance; BT= Bartlett's test; KMO= Kaiser-Meyer-Olkin

Source: Compiled by Author

Factor loadings for the retained items were higher than the recommended 0.5 and only those factors with eigenvalues higher than 1.0 were retained (Taherdoost, 2022). A minimum percentage of variance of at least 60% (Saunders et al., 2016) was also considered. A few items (SS2, SM3, SC4 and BRS3) were discarded for having attained loadings below the recommended minimum of 0.5 (Taherdoost, 2022). Ultimately, the four-factor structure involving SS, SM, SD, and SC was confirmed for the supplier management practices' scale. The BSR and SP scales were unidimensional.

4.3. Reliability and validity results

Table 2 presents the reliability results of the study, as indicated by the Cronbach alpha. All scales attained Cronbach alpha values above the recommended 0.7 minimum threshold, which confirms that the scales were internally consistent (Taherdoost, 2022).

Table 2: Reliability results

| Construct | Cronbach Alpha value |
|-----------|----------------------|
| SS | 0.812 |
| SM | 0.775 |
| SD | 0.821 |
| SC | 0.817 |
| BSR | 0.787 |
| SP | 0.823 |

SS=Supplier Selection; SM=Supplier Monitoring; SD= Supplier Development; SC=Supplier Collaboration; BSR=Buyer-Supplier relationship; SP=Supplier Performance.

Source: Compiled by author

To ascertain the content validity of the measurement instrument, a pilot study was conducted, involving a convenient sample of 43 respondents. Feedback from the review and the pilot study was used to improve the questionnaire to make it more suitable for the final survey. The EFA procedure was used to test for construct validity (refer to Table 1), where factor loadings were

higher than the 0.5 lower cut-off value, indicating that construct validity was adequate. Additionally, the positive correlation values (refer to Table 3) further confirmed that construct validity was acceptable.

4.4. Correlation analysis

Pearson correlation analysis, a parametric test, was applied to test the strength and direction of relationships between the research constructs. Pearson correlation analysis quantifies the strength of the linear relationship between numerical variables (Saunders et al., 2016). The results are presented in Table 3.

Table 3: Pearson’s Correlation Results

| RESEARCH CONSTRUCTS | SS | SM | SD | SC | BSR | SP |
|---------------------|--------|--------|--------|--------|--------|----|
| SS | 1 | | | | | |
| SM | .310** | 1 | | | | |
| SD | .315** | .716** | 1 | | | |
| SC | .324** | .605** | .644** | 1 | | |
| BSR | .355** | .236* | .295** | .350** | 1 | |
| SP | .179 | .503** | .532** | .517** | .356** | 1 |

SS=Supplier Selection; SM=Supplier Monitoring; SD= Supplier Development; SC=Supplier Collaboration; BSR=Buyer-Supplier relationship; SP=Supplier Performance
 ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

Source: Compiled by Author

The correlations (r) in Table 3 show the strength and direction of each construct against all other variables, while the significance is indicated by the p-value (Taherdoost, 2022). Positive correlations emerged between constructs. The strongest correlation occurred between SD and SM (r = 0.716; p<0.01) while the weakest correlation was observed between SP and SS (r = 0.179; p>0.05).

4.5. Regression analysis: Supplier management practices and buyer-supplier relationship

To test for prediction between the research constructs, the study utilised regression analysis, which tests the influence of independent variables towards the dependent variable. In Regression Model 1, the four supplier management practices were entered as independent variables, while BSR was entered as the dependent variable. The results are presented in Table 4.

Table 4: Regression Model 1: Supplier Management Practices and Buyer-Supplier Relationship

| Independent Variable: Supplier Management Practices | Dependent Variable: Buyer-Supplier Relationship | | | | | | |
|---|---|------------|---------------------------|---------|------|-------------------------|-------|
| | Unstandardized Coefficients | | Standardized Coefficients | t-value | Sig. | Collinearity Statistics | |
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | 1.841 | .477 | | 3.863 | .000 | | |
| Supplier Selection | .260 | .101 | .265 | 2.580 | .000 | .869 | 1.151 |
| Supplier Monitoring | -.057 | .128 | -.064 | .550 | .654 | .449 | 2.228 |

| | | | | | | | |
|---|------|------|------|-------|------|------|-------|
| Supplier Development | .088 | .123 | .107 | .718 | .00 | .415 | 2.410 |
| Supplier Collaboration | .255 | .143 | .234 | 1.784 | .000 | .532 | 1.880 |
| R=0.439; R ² =0.192 Adjusted R ² =0.156 | | | | | | | |

Source: Extracted from SPSS (Version 27.0)

The tolerance and VIF values for all independent variables were within recommended limits ($T > 0.5$; $VIF < 10$) and did not indicate any significant multi-collinearity threat (Saunders et al., 2016). The results indicate that the four supplier management practices (adjusted $R^2=0.156$) explained approximately 15.6 per cent of the variance of CR. $R = 0.439$ denotes a moderate correlation between predicted and observed variables; thus, the model predicts rather a moderate relationship between constructs.

4.6. Buyer-supplier relationship and supplier performance

Regression Model 2 tested the relationships between BSR, and SP. BSR was entered into the regression model as the independent variable, while SP was entered as the dependent variable. The results are presented in Table 5.

Table 5: Regression Model 2: Buyer-Supplier Relationship and Supplier performance

| Independent Variable: Supplier performance | Unstandardized Coefficients | | Standardized Coefficients | t-value | Sig. | Collinearity Statistics | |
|---|-----------------------------|------------|---------------------------|---------|------|-------------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | 2.373 | .373 | | 6.360 | .000 | | |
| Buyer-supplier relationship | .341 | .094 | .356 | 3.640 | .000 | 1.000 | 1.000 |
| R=0.356; R ² =0.127 Adjusted R ² =0.117 | | | | | | | |

Source: Extracted from SPSS (Version 27.0)

The results show that 11.7% of SP can be explained by BSR. This implies that the model is less effective. However, the regression analysis shows that there is a significant change in SP due to variation in BSR ($\beta=0.356$; $p=0.00$).

4.7. Hypotheses tests results

The beta coefficient value (β), t-values and p-values, are used to determine hypotheses test decisions (Taherdoost, 2022). Table 6 presents the hypotheses test decisions.

Table 6: Hypotheses decision results

| Hypothesis | Relationship | Beta coefficient | t Value | p-Value | Supported/not supported |
|---|--------------|------------------|---------|---------|-------------------------|
| H1 | SS→BSR | .265 | 2.580 | .000 | Supported |
| H2 | SM→BSR | -.064 | .550 | .654 | Not Supported |
| H3 | SD→BSR | .107 | .718 | .000 | Supported |
| H4 | SC→BSR | .234 | 1.784 | .000 | Supported |
| H5 | BSR→SP | .356 | 3.640 | .000 | Supported |
| SS=Supplier Selection; SM=Supplier Monitoring; SD= Supplier Development; SC=Supplier Collaboration; BSR=Buyer-Supplier relationship; SP=Supplier Performance. | | | | | |

Source: Compiled by Author

4.8. Discussion of the results

The study aimed to investigate the perceived influence of supplier management practices on supplier-buyer relationships, which in turn influence SP within Eskom. Three of the hypotheses (H1, H3, H4) involving supplier management practices and BSR were supported. These include SS ($\beta=0.265$; $p=0.000$) SD ($\beta=0.107$; $p=0.000$), and SC ($\beta=0.234$; $p=0.000$). By implication, supplier management improves the BSR in Eskom through SS, SD, and SC. These results are consistent with previous empirical evidence (Ampe-N'DA et al. 2020; Bai et al., 2021; Rungsithong & Meyer, 2020) which established positive relationships between supplier management practices and BSR. These results confirm the need for an emphasis on the development and implementation of more robust and distinct supplier management practices in the electrical energy providing sector as a mechanism for the improvement of their BSR and SCM competitiveness.

Moreover, one of the objectives for supplier management practices is to transfer proficiencies from buyers to the suppliers. These practices progressively develop the skills to assure the BSR and performance index towards the permanence of innovation and development in the supply chain of Eskom in this study. Thus, this distribution of skills can be achieved through various measures in the entity (Eskom Holdings). These measures may include the execution of organisational standards that facilitate integrations, interactions and associations, information sharing, and integration of best supplier management practices to enhance or strengthen knowledge quality to be transferred. Furthermore, there are some critical elements in supplier management practices that play an important role to improve BSR, that Eskom Holdings may implement. These elements include top management interest, two-way multifunctional communication, and establishing cross-functional teams. These elements are some of the most significant factors enabling supplier management practices to impact BSR (Rungsithong & Meyer, 2020) and may be adopted to further enhance the supplier-buyer relationship in Eskom Holdings.

An interesting result pertained to the influence of SM on BSR, where an insignificant relationship between the two constructs emerged ($\beta = -0.064$; $p=0.654$). This result demonstrates that SM exerts no influence on BSR. It contradicts previous studies (Bai et al., 2021; Rungsithong & Meyer, 2020), which revealed the dependency of BSR on SM. Two underlying factors could account for this uncommon result. First, the result could be an indicator of the lack of SM practices within Eskom. As Ting and Byrne (2020) argue, most SOEs in South Africa operate without a culture of monitoring and tend to be fixated on outdated and counterproductive approaches to business. Additionally, the result of the study could perhaps signal the lack of conscious efforts by managers in Eskom Holdings to develop a supplier monitoring culture as part of supplier management practices in their organisation. As shown in some studies (Mathu, 2021; Mofokeng & Chinomona, 2019; Ting & Byrne, 2020), managerial indifference towards effective supplier monitoring is a major contributing factor to the underperformance of many South African SOEs, Eskom included. As such, Eskom should understand the need to use supplier management practices such as SM to improve its relationships with them. Thus, no connection between SM and BSR was observed in the study.

Another interesting result suggested a significant positive relationship between BSR and SP ($\beta = 0.356$; $p < 0.001$). This result is in line with a previous study by Hoque and Maalouf (2022) where similar conclusions were made. This result practically demonstrates that the ability of Eskom to meet its SCM performance goals through SP depends on the strength of its BSR. Thus, Eskom's suppliers seem to be receptive and responsive to the demands it makes. Moreover, Eskom may require strict control and monitoring of the adoption of systematic quality control mechanisms in supplier organisations (Lee and Li, 2018). Consequently, Eskom can shoulder more responsibility and broaden its involvement in the quality control practices of suppliers. Therefore, it is essential for Eskom to continuously improve on its BSR to attain the best SP.

5. CONCLUSION

The aim of the study was to examine the impact of supplier management practices on SP at Eskom. Data were gathered from 293 respondents that were based in the Gauteng, Mpumalanga, Limpopo, Western Cape, and Kwa-Zulu Natal provinces of South Africa. The study found that three supplier management practices, namely SS, SD, SC, are important drivers for BSR. Additionally, SP is dependent on the strength of relationships between Eskom and its suppliers.

This study provides a theoretical contribution to the scientific development of the field of Supply Chain Management (SCM) by testing the outcomes of the effects of supplier management practices within Eskom. It also applies a conceptual framework consisting of supplier management practices, BSR, and SP within Eskom, in this way providing additional knowledge to the body of literature. It also provides a fundamental starting point for posing new research questions and improved operationalisation of the four supplier management practices considered in the study, BSR, and SP in the electrical energy sector.

In terms of practical implications, efforts to improve the competitiveness of BSR within Eskom should be directed by an understanding and consideration of the role of supplier management and its dimensions. Likewise, supplier management should be considered an important diagnostic cornerstone when addressing supplier-related challenges. In the same vein, Eskom's triple-bottom-line performance can be improved by strengthening the entity's supplier management, the latter of which should be treated as an essential reference point when addressing performance-related challenges.

5.1. Limitations and Implications for further research

The study targeted specifically the national electricity provider (Eskom) in a single country which is South Africa and was confined to five provinces which included Gauteng, Mpumalanga, Limpopo, Western Cape, and Kwa-Zulu Natal. The use of non-probability sampling to draw respondents tends to limit the extent to which the study can be generalised to the entire sector. In addition, a cross-sectional survey was administered, making it difficult to evaluate the effect of the difference over the period in which the study was extended.

Several implications for further research can be highlighted. Future research could explore other industries such as mining and construction among others within the South African context, or within

the rest of Africa to further evaluate the proposed model and improve the generalisability of the results. In addition, since the study targeted only five provinces in South Africa, other provinces could be included in future studies to allow the generalisation of the results. Future research might also consider increasing the sample size to improve the validity of the study.

REFERENCES

- Alghababsheh, M., & Gallear, D. (2020). Social capital in buyer-supplier relationships: A review of antecedents, benefits, risks, and boundary conditions. *Industrial Marketing Management, 91*, 338-361.
- Ampe-N'Da, L. D., Payne, B. A., Spake, R. I., Sharpe, S., & Arora, A. (2020). Buyer-supplier relationships: role of collaboration, sustainability, and technology. *Sustainable innovation: trends in marketing and management*, 47-58.
- Bag, S., Gupta, S., Kumar, S., & Sivarajah, U. (2021). Role of technological dimensions of green supply chain management practices on firm performance. *Journal of Enterprise Information Management, 34*(1), 1-27.
- Bai, C., & Satir, A. (2022). A critical content-analysis of sustainable supplier development literature and future research directions. *Journal of Cleaner Production, 365*, 132443.
- Bai, C., Govindan, K., & Dhavale, D. (2023). Optimal selection and investment-allocation decisions for sustainable supplier development practices. *Annals of Operations Research*, 1-31.
- Bai, C., Kusi-Sarpong, S., Khan, S. A., & Vazquez-Brust, D. (2021). Sustainable buyer-supplier relationship capability development: A relational framework and visualization methodology. *Annals of Operations Research, 304*(1-2), 1-34.
- Benton Jr, W. C., Prahinski, C., & Fan, Y. (2020). The influence of supplier development programs on supplier performance. *International Journal of Production Economics, 230*, 107793.
- Bowman, A. (2020). Parastatals and economic transformation in South Africa: The political economy of the Eskom crisis. *African Affairs, 119*(476), 395-431.
- Bravo, V. L., Villacrés, M. J., & Silva, M. E. (2021). Analysing competing logics towards sustainable supplier management. *Supply Chain Management: An International Journal, 27*(7), 49-63.
- Chai, J., & Ngai, E. W. (2020). Decision-making techniques in supplier selection: Recent accomplishments and what lies ahead. *Expert Systems with Applications, 140*, 112903.
- Changalima, I. A., Mchopa, A. D., & Ismail, I. J. (2023). Supplier monitoring and procurement performance in the public sector in Tanzania: the moderating role of contract management difficulty. *IIM Ranchi Journal of Management Studies, 2*(1), 16-30.
- Chen, Z., Ming, X., Zhou, T., & Chang, Y. (2020). Sustainable supplier selection for smart supply chain considering internal and external uncertainty: An integrated rough-fuzzy approach. *Applied Soft Computing, 87*, 106004.

Davids, D. J. (2023). An examination of the corporate governance failures and challenges at key South African SOEs and the implications on enterprise efficiency: A case study of Eskom. Doctoral dissertation. University of Western Cape, Cape Town, South Africa.

Dzaga, T. (2023). *The role of governance within South Africa's state-owned enterprises: a case study of Eskom*. Doctoral dissertation. University of Venda, Thohoyandou, South Africa.

Flepisi, L., & Mlambo, C. (2021). Factors influencing the late delivery of projects in state-owned enterprises: the case of Eskom. *South African Journal of Industrial Engineering*, 32(4), 57-66.

Frempong, M. F., Mu, Y., Adu-Yeboah, S. S., Hossin, M. A., & Adu-Gyamfi, M. (2021). Corporate sustainability and firm performance: The role of green innovation capabilities and sustainability-oriented supplier–buyer relationship. *Sustainability*, 13(18), 10414.

Giannakis, M., Dubey, R., Vlachos, I., & Ju, Y. (2020). Supplier sustainability performance evaluation using the analytic network process. *Journal of Cleaner Production*, 247, 119439.

Hawkins, T. G., Gravier, M. J., & Muir, W. A. (2020). The role of supplier performance evaluations in mitigating risk: Assessing evaluation processes and behaviors. *Industrial Marketing Management*, 87, 2-17.

Hoque, I., & Maalouf, M. M. (2022). Quality intervention, supplier performance and buyer–supplier relationships: evidence from the garment industry. *Benchmarking: An International Journal*, 29(8), 2337-2358.

Huo, B., Haq, M. Z. U., & Gu, M. (2021). The impact of information sharing on supply chain learning and flexibility performance. *International Journal of Production Research*, 59(5), 1411-1434.

Juettner, U., Windler, K., Podleisek, A., Gander, M., & Meldau, S. (2020). Implementing supplier management strategies for supply chain sustainability risks in multinational companies. *The TQM Journal*, 32(5), 923-938.

Krause, D.R., Handfield, R.B. & Tyler, B.B. (2007). The relationships between supplier development, commitment, social capital accumulation and performance improvement. *Journal of Operations Management*, 25(2),528-545

Masindi, D., Mafini, C., & Mutekwe, L. (2020). SSIRC 2022-183 Supply chain management practices and corporate performance in a South African public electricity utility. *Technical Editing*, 1365.

Mathu, K. (2021). Renewable energy as a driver of sustainability of South African electricity supply chain. *Readings Book*, 78.

Matsui, K. (2021). Buyer's strategic demand information sharing with an upstream echelon for entry promotion. *International Journal of Production Economics*, 242, 108286.

Mofokeng, T. M., & Chinomona, R. (2019). Supply chain partnership, supply chain collaboration and supply chain integration as the antecedents of supply chain performance. *South African Journal of Business Management*, 50(1), 1-10.

Mohan, M., Nyadzayo, M. W., & Casidy, R. (2021). Customer identification: The missing link between relationship quality and supplier performance. *Industrial Marketing Management*, 97, 220-232.

- Molinaro, M., Danese, P., Romano, P., & Swink, M. (2022). Implementing supplier integration practices to improve performance: The contingency effects of supply base concentration. *Journal of Business Logistics*, 43(4), 540-565.
- Moradlou, H., Roscoe, S., & Ghadge, A. (2022). Buyer–supplier collaboration during emerging technology development. *Production Planning & Control*, 33(2-3), 159-174.
- Ojha, D., Dayan, M., Struckell, B., Dhir, A., & Pohlen, T. (2022). Social exchange in buyer-supplier relationships and innovation speed: the mediating and moderating role of information sharing and knowledge channels. *Journal of Knowledge Management*, (ahead-of-print).
- Pedroso, C. B., Tate, W. L., da Silva, A. L., & Carpinetti, L. C. R. (2021). Supplier development adoption: a conceptual model for triple bottom line (TBL) outcomes. *Journal of Cleaner Production*, 314, 127886.
- Rungsithong, R., & Meyer, K. E. (2020). Trust and knowledge sharing in context: A study of international buyer-supplier relationships in Thailand. *Industrial Marketing Management*, 88, 112-124.
- Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research Methods for Business Students*. England: 8th ed. Essex: Pearson Education
- Schotanus, F., van den Engh, G., Nijenhuis, Y., & Telgen, J. (2022). Supplier selection with rank reversal in public tenders. *Journal of Purchasing and Supply Management*, 28(2), 100744.
- Shafiq, A., Johnson, P. F., & Klassen, R. D. (2022). Building synergies between operations culture, operational routines, and supplier monitoring: implications for buyer performance. *International Journal of Operations & Production Management*, 42(5), 687-712.
- Shamsollahi, A., Chmielewski-Raimondo, D. A., Bell, S. J., & Kachouie, R. (2021). Buyer–supplier relationship dynamics: A systematic review. *Journal of the Academy of Marketing Science*, 49, 418-436.
- Shukla, S., Kapoor, R., Gupta, N., & Arunachalam, D. (2023). Knowledge transfer, buyer-supplier relationship, and supplier performance in agricultural supply chain: An agency theory perspective. *Journal of Knowledge Management*, 27(3), 738-761.
- Sikombe, S., & Phiri, M. A. (2019). Exploring tacit knowledge transfer and innovation capabilities within the buyer–supplier collaboration: A literature review. *Cogent Business & Management*, 6(1), 1683130.
- Subramaniam, P. L., Iranmanesh, M., Kumar, K. M., & Foroughi, B. (2020). The impact of multinational corporations' socially responsible supplier development practices on their corporate reputation and financial performance. *International Journal of Physical Distribution & Logistics Management*, 50(1), 3-25.
- Sudusinghe, J. I., & Seuring, S. (2022). Supply chain collaboration and sustainability performance in circular economy: A systematic literature review. *International Journal of Production Economics*, 245, 108402.
- Sytch, M., Kim, Y., & Page, S. (2022). Supplier-selection practices for robust global supply chain networks: a simulation of the global auto industry. *California Management Review*, 64(2), 119-142.

- Taherdoost, H. (2022). Sampling methods in research methodology; how to choose a sampling technique for research. How to Choose a Sampling Technique for Research? *International Journal of Academic Research in Management*, 5(2), 18-27.
- Ting, M. B., & Byrne, R. 2020. Eskom and the rise of renewables: Regime-resistance, crisis, and the strategy of incumbency in South Africa's electricity system. *Energy Research & Social Science* 60:101333.
- Tshabalala, S. (2021). The governance of enterprise and supplier development. *SSRN 3920016*.
- Tsunoda, Y., & Zennyō, Y. (2021). Platform information transparency and effects on third-party suppliers and offline retailers. *Production and Operations Management*, 30(11), 4219-4235
- Ukko, J., Saunila, M., Nasiri, M., & Rantala, T. (2022). The importance of sustainability engagement in small businesses supplier collaboration. *Sustainable Development*, 30(1), 1-9.
- Wang, M. W. C., Tan, C. L., & Wahid, N. A. (2020). Supplier management practice and service quality: Critical review on mediating role of outsourcing service provider capabilities. *International Journal of Industrial Management*, 7, 9-15.
- Xu, L., Kumar, D.T., Shankar, K.M., Kannan, D., & Chen, G. (2013). Analyzing criteria and sub-criteria for the corporate social responsibility-based supplier selection process using AHP. *International Journal of Advanced Manufacturing Technology*. 68 (1), 907-916.
- Ye, F., Huang, G., Zhan, Y., & Li, Y. (2021). Factors mediating and moderating the relationships between green practice and environmental performance: Buyer–supplier relation and institutional context. *IEEE Transactions on Engineering Management*, 70(1), 142-155.
- Zhang, S., & Zhang, J. (2020). Agency selling or reselling: E-tailer information sharing with supplier offline entry. *European Journal of Operational Research*, 280(1), 134-151.

SSIRC 2023-064**IMPACT OF FOREIGN DIRECT INVESTMENT AND ELECTRICITY SUPPLY ON ECONOMIC GROWTH: EVIDENCE FROM SOUTH AFRICA****K.P. Mabusela**

University of Limpopo, South Africa

P.D. Semosa

University of Mpumalanga, South Africa

K.K. Ogujiuba

University of Mpumalanga, South Africa

ABSTRACT

The industrial sector of South Africa's economy has benefited greatly from foreign direct investment (FDI), albeit in recent years FDI levels have remained relatively modest when compared to other developing market nations. On the other side, it is hypothesized that a reliable supply of electricity will affect economic expansion. However, since the industrial sector is the largest economic contributor to South Africa's GDP, the country's ongoing industrial decline and declining economic growth are closely related to declining electricity sustainability. In addition, several studies have yielded conflicting findings on the precise influence of FDI and electricity supply on South Africa's economic growth, raising important issues. In this manuscript, the effects of energy supply and foreign direct investment on South Africa's economic growth are examined. Utilizing causality analysis and cointegration, the model is estimated. The vector error correction model (VECM) was used to ascertain the short-run equilibrium relationship among the variables, and the Johansen cointegration test was used to capture the long-run link between the variables. Stability tests were used to make sure the model was appropriately specified, and that the econometric model's output produced true estimates. The impulse response function was used to track how variables responded to external shocks. The results show that foreign direct investment (FDI) has a favourable impact on economic growth whereas electricity supply has a negative impact. FDI interacts with the level of human capital, in contrast to domestic investment, to increase its contribution to economic growth. This suggests that to ensure economic growth, the energy sector must have a minimum stock of human capital. South African policymakers should take measures that will entice foreign capital to invest there, causing the country's economy to flourish and, in turn, boost the country's supply of power. A smart macroeconomic strategy that may draw FDI and promote economic growth should also be considered by policymakers.

KEYWORDS: economic; GDP; growth; FDI; electricity

JEL Codes: E61; F01; H11

1. INTRODUCTION

Foreign direct investment (FDI) has considerably aided South Africa's economic expansion, even though it has recently remained at relatively low levels compared to other emerging market

countries. Despite general macroeconomic conditions improving and South Africa's advantages in terms of natural resources and market size, foreign investors have shown little interest in buying, founding, or expanding indigenous companies (Arvanitis, 2005). South Africa was ranked 13th in the 2014 AT Kearney foreign direct investment (FDI) confidence index, despite not making the top 25 FDI destinations list for 2015. FDI is viewed as a major factor driving economic integration, according to the Organisation for Economic Co-operation and Development (2008), because it may increase societal well-being, create economic growth, and provide financial stability. According to the 2016 budget review, the level of risk associated with financing and investing in South Africa has significantly grown. This can be attributed to the fact that the credit outlook began to deteriorate around the end of 2015, which changed the finance portfolio, caught investors off guard, and raised questions about the fiscal integrity of government spending. Foreign investment can help overcome the saving deficit and promote economic growth in South Africa because of the country's low savings rates, which have limited private investment (Arvanitis, 2005). Macroeconomic uncertainty, political instability, and economic crisis are some of the challenges in attracting FDI inflows in many African countries (AT Kearney, 2015). Foreign direct investment into South Africa has dropped by 69%, its lowest level in 10 years, according to the United Nations Conference on Trade and Development's 2016 World Investment Report.

However, South Africa's electrical reserve margin had drastically decreased over the previous years. A developing power crisis jeopardized South Africa's declared goal of increasing the economy at 6% per year between 2010 and 2014 because of this drop in which demand outstripped supply (Amusa, Amusa, and Mabugu, 2009). Any nation can experience higher levels of growth if it has a plentiful supply of electricity, but the South African economy is particularly dependent on and energy-intensive (Wolde-Rufael, 2005). According to recently disclosed data, South Africa's economy expanded by 0.4% from January through March of this year. Power outages that can be life-threatening, fluctuating commodity prices, and a difficult external environment have all contributed to the country's dismal economic performance. By year's end, we anticipate a significant decline from last year's real GDP growth. The pace is too slow to lower unemployment, which, at 32.9 percent, remains very near to an all-time high, even if we anticipate growth to pick up again in 2024. After years of poor management of the state-owned utility Eskom, the nation experienced rolling blackouts. As a result, the government loosened the registration and licensing criteria for energy production to attract private sector involvement. To aid Eskom in establishing its commercial viability and easing the energy situation, the government recently unveiled a three-year debt reduction plan. To achieve inclusive, greener, and job-rich growth, further, far-reaching changes are required. These include easing the nation's energy and logistics shortages, lowering investment hurdles for the private sector, eliminating structural rigidities in the labour market, and combating crime and corruption. Beyond having a direct effect on the nation's output, electricity is important to the nation's economy.

In addition to serving as a fundamental input, it also serves as a stimulant for growth and development (RSA Subsidiary Committee, 1977). Power is in great demand across all economies, according to Masuduzzaman (2012). This need is fuelled by significant advancements including

industrialization, extensive urbanization, population growth, an improvement in living standards, and even the modernisation of agriculture. This essay's major objective is to assess the relationship between foreign direct investment and South Africa's economic growth. The manuscript has been structured as follows: section 2 contains the literature review; section 3 contains the methodology applied; section 4 presents the results and findings of the paper and section 5 concludes the paper.

1.1 Theoretical Framework

Investment is viewed as a crucial component of economic growth in the Keynesian hypothesis. The economy is prone to random shocks and is essentially unstable, claim Snowdon, Vane, and Wynarczyk (1994). According to Keynes' general theory, variations in the level of company confidence are principally responsible for the shocks. Investment expenditure in Keynes' model is based on the investment's anticipated profitability. Foreign direct investment (FDI) is a category of cross-border investment in which an investor resident in one economy establishes a lasting interest in and a significant degree of influence over an enterprise resident in another economy. FDI is an integral part of an open and effective international economic system and a major catalyst to development. According to the modernization hypothesis, which is based on the neoclassical and endogenous growth theories, foreign direct investment may help the host economy experience economic growth. This is based on the economic theory that capital investment is necessary for economic growth and that most of this capital originates from foreign direct investment (Adams, 2009). Contrary to the modernization hypothesis, the dependence theory contends that reliance on foreign investment may be detrimental to both economic growth and income distribution (Adams, 2009). In the Keynesian theory, the total output in an economy is also influenced by investment which is determined by the interest rate (Mohr and Rogers, 1998). This is represented by $Y=C+I+G+(N-X)$, in which low spending on investment may cause insufficient spending and employment.

There are two primary methods for society to grow its real output, according to McConnell and Brue (2005): by expanding its inputs and by raising the productivity of those inputs. When workers gain access to more and better tools, resources, and machinery, productivity increases. The availability of power has an impact on the output that this machinery produces. According to McDonald (2009), since electricity is a tool for fostering economic progress, a lack of it could slow it down. According to the growth theory's reference to the production possibility curve, there are several maximal product combinations that a country's economy can produce given the quality of its capital, human, and natural resource bases as well as its stock of technological know-how. An improvement in any of these factors will push the curve outward, which means an efficient electricity supply increases the number of products an economy can produce (McDonald, 2009).

According to Borensztein, Gregorio, and Lee (1998), in a cross-country regression framework, foreign direct investment only contributes to economic growth when the host economy has a sufficient capacity for absorbing sophisticated technology. Although the size of this influence varies depending on the amount of human capital present in the host economy, foreign direct investment generally has a favourable impact on economic growth (Borensztein et al., 1998). Foreign direct

investment, according to Adams (2009), is positively and statistically connected with economic growth only in the OLS, but not when country-specific variables are considered. The results support the findings of Carkovic and Levine (2002) argument that after controlling for the country's specific factors, foreign direct investment does not have a positive impact on economic growth.

A strong complimentary relationship between foreign direct investment and economic growth was found by Li and Lui in 2005. However, according to Akinlo's (2004) findings, FDI in Nigeria only boosts GDP after a protracted period of negative impact. Given Nigeria's abundance of oil, extractive FDI—especially oil—might not be as growth-enhancing as industrial FDI. Studies on the relationship between FDI and host country economic growth have overwhelmingly established that FDI has a beneficial effect. Even though the advantages of FDI are widely acknowledged and respected, empirical data demonstrates that not all FDI is advantageous and that FDI does not always result in economic progress. Masia (2012). For economic expansion, an adequate supply and utilization of energy have become increasingly crucial (RSA Subsidiary Committee 1977:1). According to Morimoto and Hope (2001), the findings of the Granger causality test revealed that changes in the electrical supply in the present as well as the past had a significant impact on changes in economic growth. Alam and Sarker (2010) employed the Phillips-Perron (PP) and Augmented Dickey-Fuller (ADF) tests prior to testing for causation. Their findings demonstrate a one-way relationship between the generation of power and economic expansion. This suggests that increasing electricity output would encourage economic growth. The findings from both researches demonstrate that increased power generation stimulates economic growth by enabling a variety of economic activities. Yang (2000) discovered a two-way causal link between Taiwan's gross domestic product and power use. Yang's findings, however, did not agree with Cheng and Lai's (1997) conclusions due to the variable utilized to quantify economic growth. Cheng and Lai (1997) assert that while economic expansion in Taiwan causes energy consumption, it does not directly cause electricity consumption. However, there are many factors impacting economic growth, and energy is only one of them. Their findings suggested that stronger economic growth requires substantial power use. Masuduzzaman (2012) discovered that over time, higher power consumption and higher investment lead to more economic growth by using the error correction model (ECM) to examine the causal relationships between economic growth, electricity consumption, and investment in Bangladesh. The findings also showed that investment and economic growth are caused by use of power, but not the other way around.

2. DATA and METHODS

This study attempts to determine the impact of FDI and electricity supply on South African economic growth by employing the Johansen cointegration test and VECM. Diagnostic tests are also performed to check the existence of serial correlation and heteroskedasticity in the time series. Stability tests are also performed to check whether the model is correctly specified. Impulse response

2.1 Data Collection

This paper employed annual time series data covering the period 1985 to 2014. The data for FDI has been obtained from the South African Reserve Bank (SARB) online statistical query. The data for electricity supply is obtained from Statistics South Africa and economic growth from the World Bank data bank. To ease calculations the study uses a natural logarithm of the two independent variable data. Log transformation ensures a better fit of data by reducing the size of residuals for the two variables with big values.

2.2 Data and Model Specification

The model of the study consists of three variables with annual time series data. The variables are economic growth, foreign direct investment, and electricity supply. In generating the model, economic growth (EG) is expressed as a function of foreign direct investment (FDI) and electricity supply (ELECT). Economic growth is regarded as the dependent variable with foreign direct investment and electricity supply being regarded as the independent variables. The model is expressed as follows:

$$EG = f(FDI, ELECT) \dots\dots\dots 1$$

and as a linear equation

$$EG_t = \alpha + \beta_1 FDI_t + \beta_2 ELECT_t + \mu_t \dots\dots\dots 2$$

Where:

- EG* = Economic growth
- FDI* = Foreign direct investment
- ELECT* = Electricity supply
- α = Constant
- β = Parameters of the model with real numbers
- μ = Error term

2.2.1 Unit root

The Augmented Dickey-Fuller Test (ADF) was employed to test for unit root (stationarity) in each variable. The essence of studying these properties is to determine if the variables in the model are stationary, to avoid spurious regression which might lead to a high R2 and thus, misleading results (Asteriou and Hall, 2011). The golden rule says the data become stationary if the probability value is lower than 5% level of significance. The focus of the ADF test will be on the probability values, critical values, and t-statistics values. If the critical values are lower than the values of the t-statistics at different levels of significance, the null hypothesis is not rejected. Meaning there is a unit root, or the time series data is not stationary. But if the critical values are greater than the t-statistics at different levels of significance, the null hypothesis is rejected. Meaning there is no unit root. If variables are stationary in a model, they will tend to have constant variance and some elements of autocorrelation over time (Noula, 2012).

The equation for ADF is given by:

$$\Delta y_t = \alpha_0 + \beta t + \gamma y_{t-1} + \delta_1 \Delta y_{t-1} + \dots + \delta_{p-1} \Delta y_{t-p+1} \dots \dots \dots 3$$

Where α is the constant, β the coefficient on a time trend, and p is the lag order of the autoregressive process. To select the optimal lag length for the model, the log-likelihood function must be maximized (Maggiore and Skerman, 2009).

2.2.2 Johansen Cointegration Test

The purpose of the Johansen cointegration test is to find out the number of cointegrated vectors necessary to run the VAR model. The paper employed the Johansen cointegration approach to determine the short-run and long-run relationship among the variables. According to Gujarati (2004), Johansen’s method takes a starting point from the VAR representation of the variables:

$$\begin{aligned} \Delta Y_t &= \mu + \Pi Y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \varepsilon_t \dots \dots \dots 4 \end{aligned}$$

Where Y_t is a $n \times 1$ vector of variables that are integrated of order of one commonly denoted by $I(1)$ and ε_t is a vector of innovations. If the coefficient matrix Π has a reduced rank $r < n$, then there exist $n \times r$ matrices α and β each with rank r such that $\Pi = \alpha \beta^1$ and $\beta^1 Y_t$ is stationary, whilst r is the number of cointegrating relationships.

The Johansen cointegration approach depends on two different likelihood ratio tests of the reduced rank of the matrix: namely, the trace test and the maximum eigenvalue test. The Trace test is given by:

$$\lambda_{trace}(r) = -T \sum_{i=r+1}^n \ln(1 - \hat{\lambda}_{r+1}) \dots \dots \dots 5$$

The maximum eigenvalue test is given by:

$$\lambda_{max} = -T \ln(1 - \hat{\lambda}_{r+1}) \dots \dots \dots 6$$

where:

T is the sample size, and $\hat{\lambda}_i$ is the i th largest canonical correlation.

β^1 , represent the matrix of cointegrating vectors.

α , represent the speed of adjustment coefficients.

r , represent the number of cointegrating relationships.

Π , determines the extent to which the system is cointegrated and is called the impact.

2.2.3. Vector Error Correction Model (VECM)

The purpose of the vector error correction model in this study is to determine the short-run relationship between the variables. VECM serves to estimate both short term and long run effects of explanatory time series. It corrects long run disequilibrium through short run adjustments, leading the system to short run equilibrium. The VECM will only be carried out if there is cointegration between the variables from the Johansen cointegration test.

Model specification:

$$\begin{aligned} \Delta X_t &= \beta_{x0} + \beta_{xx1}\Delta_{t-1} + \beta_{x11}\Delta P^1_{t-1} + \beta_{x21}\Delta P^2_{t-1} \\ &\quad + v^x_t \dots\dots\dots 7 \\ \Delta P^1_t &= \beta_{10} + \beta_{1x1}\Delta_{t-1} + \beta_{111}\Delta P^1_{t-1} + \beta_{121}\Delta P^2_{t-1} \\ &\quad + v^1_t \dots\dots\dots 8 \\ \Delta P^2_t &= \beta_{20} + \beta_{2x1}\Delta_{t-1} + \beta_{211}\Delta P^1_{t-1} + \beta_{221}\Delta P^2_{t-1} \\ &\quad + v^2_t \dots\dots\dots 9 \end{aligned}$$

Where: ΔX_t represent the gross domestic product, ΔP^1_t represent the foreign direct investment variable and ΔP^2_t represent the electricity supply variable. β Represent the coefficients of the variables, $t - 1$ represent the tests for unit root, while (v^x_t, v^1_t, v^2_t) represents the VECM error terms.

2.2.3 Diagnostic testing

To ensure that the results of the linear regression model yield true estimates, diagnostic tests will be employed. This will commence by performing the Jarque-Bera test. The essence of this test is to determine if the residuals are normally distributed in model (Gujarati & Porter, 2009). This is followed by Breauch-Godfrey and Breauch-Pegan-Godfrey tests to check the existence of serial correlation and heteroskedasticity respectively.

2.2.4 Stability testing

For stability test, the study used both the Ramsey RESET and the Cusum tests. The key principle of carrying out this test is to determine if the error correction equation is correctly specified. If the equation of the error correction model is incorrectly specified, it may lead to misspecification bias and wrong functional forms that would result in a high R2 and thus, yield misleading results (Asteriou & Hall, 2011).

2.2.5 The Impulse Response Function

The study employed the impulse response function to trace out the response of the current and future values of each of the variables to a one unit increase in the current value of one of the VAR errors. The impulse response function shows the effects of an exogenous shock on the whole process

over time. Impulse response function shows how one variable responds over time to a single innovation or another variable.

3. RESULTS and DISCUSSION

3.1 Unit Root Test

The results from the ADF tests indicate that the null hypothesis of a unit root process for the variables economic growth, foreign direct investment and electricity supply cannot be rejected because they exhibit the presence of a unit root at level form. The time series data appears to be stationary after been differenced one. Although EG appears to be stationary at level form the null hypothesis is however rejected at 1% level of significance. Table 4-1 presents summary of the results from the ADF test.

Table 1: Summary of Unit Root Tests (ADF)

| Variables | ADF CONSTANT, LINEAR TREND | | | | | | Results |
|-----------|---|-------------|-----------------|-------------|------------|-------------|---------|
| | Lag Length: (Automatic based on SIC) | t-statistic | Critical values | | | Probability | |
| | | | 1% | 5% | 10% | | |
| EG | 0 | -3.154529 | -3.679322*** | -2.967767 | -2.622989 | 0.0335 | I (0) |
| | 1 | -5.165560 | -3.689194 | -2.971853 | -2.625121 | 0.0002 | I (1) |
| LFDI | 0 | -0.198134 | -3.679322*** | -2.967767** | -2.622989* | 0.9281 | I (0) |
| | 1 | -5.629939 | -3.689194 | -2.971853 | -2.625121 | 0.0001 | I (1) |
| LELECT | 0 | -2.356717 | -3.679322*** | -2.967767** | -2.622989* | 0.1622 | I (0) |
| | 1 | -5.062913 | -3.689194 | -2.971853 | -2.625121 | 0.0003 | I (1) |

Source: Author’s own calculations with EViews 8.1

- * Denotes the rejection of the null hypothesis at 10% level of significance
- ** denotes the rejection of the null hypothesis at 5% level of significance
- *** denotes the rejection of the null hypothesis at 1% level of significance

a. Johansen cointegration test

The Johansen cointegration tests results based on both the trace and the maximum eigenvalue tests are presented in Table 4-2. The tests were based on the Akaike information criterion (AIC); at length lag of 2 as illustrated in Table 4-2.

Table 2: Lag order selection criteria

| Lag | LogL | LR | FPE | AIC | SC | HQ |
|-----|-----------|-----------|-----------|------------|-----------|------------|
| 0 | -48.94941 | NA | 0.012810 | 4.155953 | 4.302218 | 4.196521 |
| 1 | 16.72109 | 110.3264* | 0.000139 | -0.377687 | 0.207373* | -0.215416 |
| 2 | 26.78968 | 14.49877 | 0.000132* | -0.463175 | 0.560681 | -0.179201 |
| 3 | 32.44266 | 6.783566 | 0.000190 | -0.195412 | 1.267239 | 0.210265 |
| 4 | 40.42643 | 7.664422 | 0.000251 | -0.114114 | 1.787332 | 0.413266 |
| 5 | 60.30940 | 14.31574 | 0.000152 | -0.984752* | 1.355490 | -0.335668* |

* Indicates lag order selected by the criterion
 LR: sequential modified LR test statistic (each test at 5% level)
 FPE: Final prediction error
 AIC: Akaike information criterion
 SC: Schwarz information criterion
 HQ: Hannan-Quinn information criterion

Source: Author’s own calculations with EViews 8.1

In Table 3 below, the trace test indicates 1 cointegrating equation at the 5% critical value and the implication is that there exists a long run relationship between the variables in the model. The maximum eigenvalue test indicates no cointegrating equation meaning there is no long run relationship between the variables. Therefore, since the trace test and maximum eigenvalue test indicates different results; trace test will be preferred as it indicates the existence of a long-run relationship between economic growth, foreign direct investment, and electricity supply.

Table 3: Johansen cointegration tests

| Tests | Hypothesized No. of CE(s) | Eigenvalue | Trace Statistic | 0.05 Critical value | Probabilities** |
|--------------------|---------------------------|------------|-----------------|---------------------|-----------------|
| Trace | None* | 0.489434 | 33.26802 | 29.79707 | 0.0191 |
| | At most 1 | 0.326994 | 15.11767 | 15.49471 | 0.0569 |
| | At most 2* | 0.151184 | 4.425643 | 3.841466 | 0.0354 |
| Maximum Eigenvalue | None | 0.489343 | 18.15035 | 21.13162 | 0.1243 |
| | At most 1 | 0.326994 | 10.69203 | 14.26460 | 0.1703 |
| | At most 2* | 0.151184 | 4.425643 | 3.841466 | 0.0354 |

Source: Author’s own calculations with Eviews8.1

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level.

Max-eigenvalue test indicates no cointegration at the 0.05 level.

*Denotes rejection of the hypothesis at 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Table below expresses the relationship of the variables with economic growth being the dependent variable.

Table 4: Normalised cointegrating equation

| Normalised cointegrating coefficient (Standard error in parentheses) | | | |
|--|--|-----------|-----------|
| EG | | LFDI | LELECT |
| 1.000000 | | -1.509222 | 3.642082 |
| | | (0.98369) | (7.55012) |

Source: Author’s own calculations with Eviews8.1

Economic growth (EG) normalised to unity as endogenous variable of the regression. With the estimated cointegrated vector, the associated coefficients represent the long run impact of foreign direct investment and electricity supply on economic growth. The cointegrated vector is expressed as follows:

$$EG + LFDI + LELECT = 0 \dots\dots\dots 10$$

$$\text{Thus: } EG - 1.509222LFDI + 3.642082LELECT = 0 \dots\dots\dots 11$$

$$EG = \alpha + 1.509222LFDI + 3.642082LELECT \dots\dots\dots 12$$

Equation 12 indicates the existence of a long-run positive impact between foreign direct investment and economic growth. This implies that a 1% increase change in inflow of foreign direct investment into South Africa will lead to a 1.509% increase in economic growth. In the same logic, equation 12 indicates a negative impact between electricity supply and economic growth. This implies that a 1% increase in electricity supply will lead to a 3.642% increase in economic growth. The results of the impact of foreign direct investment to economic growth support theory as well as empirical evidence. Electricity consumption can promote economic growth, through which electricity consumption can to some extent enhance the production of capital, labor and technique; economic growth can in turn increase the demand for electricity consumption, which indicates the inherent relationship between them.

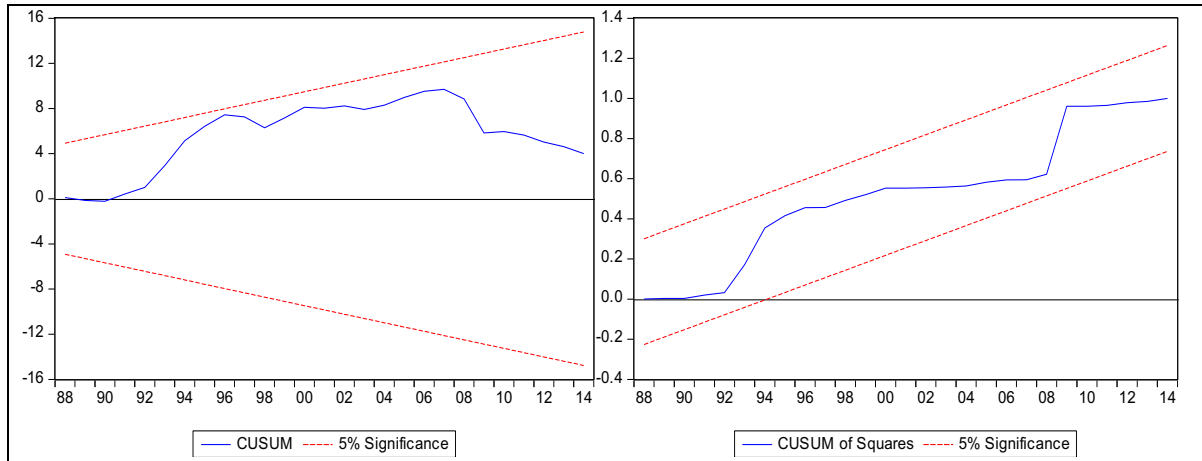
b. Vector Error Correction Model (VECM)

The paper establishes VECM considering 1 cointegrating vector derived from the Johansen cointegration test, with lags interval of 1 to 2. The results from VECM indicate that the variables can adjust back to equilibrium after an external shock.

c. Stability tests

The CUSUM and CUSUM of squares test on figure 1 illustrates that the model is stable as the cumulative sum moves inside the critical lines. This movement between the lines of significance at 5% is therefore an indication of stability.

Figure 1: CUSUM test and CUSUM of squares test

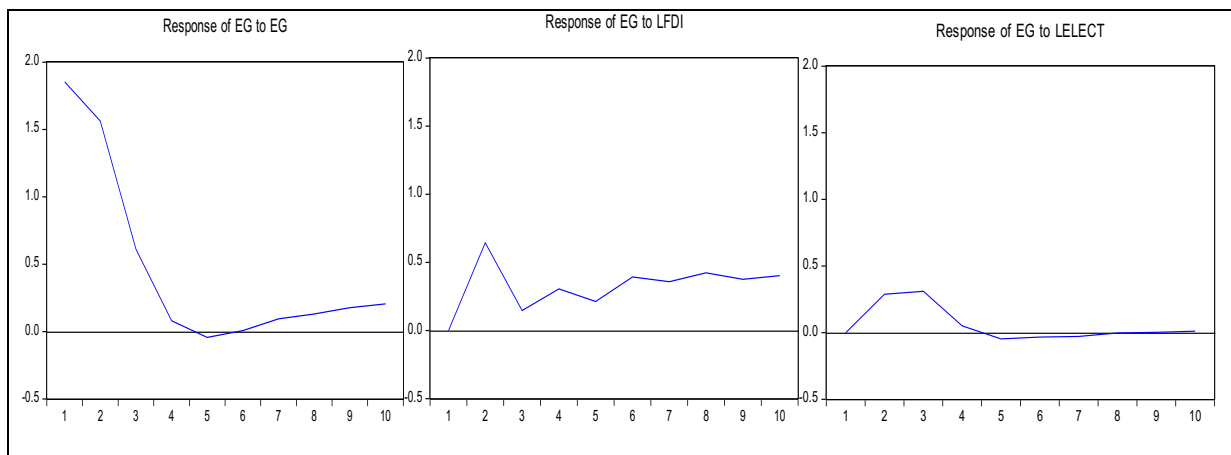


Author’s own calculations with Eviews8.1

d. Impulse Response Function

In figure 2 the response of economic growth to economic growth is positive until period 4, responds negatively in period 5 and 6 and finally response positively until end of the period. The response of economic growth to foreign direct investment is also positive in all the periods. The response of economic growth starts by responding positively to electricity supply until period 3, and then becomes negative at period 4 and 5, and finally starts hovering around zero until the period ends.

Figure 2: The Impulse Response Function



Author’s own calculations with Eviews8.1

4. CONCLUSION

The impact of energy supply and foreign direct investment on South Africa's economic growth was investigated in this study. This study is necessary since South Africa's open economy depends on

foreign direct investments to finance capital investments and supply its inhabitants with trained labor. Any economic activity, whether it takes place in homes or businesses, depends on the availability of power. The study was able to determine how changes in electricity supply and foreign direct investment impacted economic growth. The study applied both the vector error correction model and the Johansen cointegration approach to estimate the long and short run associations of the variables. The years covered by the study were 1985 through 2014. The Johansen cointegration test indicates that there is just one cointegrating equation between the variables. This indicates that the three variables are combined linearly. The VECM computations showed that the beta parameters of the equilibrium equation were large. The results of the VECM show a positive correlation between foreign direct investment and economic growth in South Africa. The modernization theory contends that because FDI is thought to be an essential element of economic growth, it can promote economic growth in the host economy. The results are consistent with empirical studies that demonstrate a strong and favorable relationship between foreign direct investment and economic growth. The findings also suggest a bad relationship between the availability of energy and economic expansion. It has been demonstrated by theory and empirical literature that an adequate electrical supply changes overall output, hence fostering economic growth. As a result, economic growth is influenced by a variety of factors, of which electricity is only one. Increasing economic growth necessitates increasing energy use, not the other way around. This can also be attributed to the fact that increased electricity supply is largely consumed by households which explains why although electricity supply increased it still has a negative impact on economic growth.

Future studies could test for endogeneity (reverse causality), because of the likely impact of economic growth on FDI and supply of electricity. In addition, other common growth factors such as human capital, population, institutions, and gross fixed capital formation could be added in the model. This paper provides policymakers in South Africa with a framework on how to put into action policies that will attract investors and accelerate the country's economic growth rate. This can be achieved by relaxing limits on foreign investment and strengthening ties with other countries on the economic front. In addition to the benefits of the cooperation, economic integration will increase investors' confidence in making investments in South Africa. It will speed up economic growth, which will boost the supply of electricity because the pace of economic growth depends on this.

REFERENCES

- Adams, S. (2009). Foreign direct investment, domestic investment, and economic growth in Sub-Saharan Africa. *Journal of Policy Modelling*, 939-949.
- Akinlo, E. A. (2004). Foreign direct investment and growth in Nigeria An empirical investigation. *Journal of Policy Modelling*, 627-639.
- Alam, K., and Sarker, A. R. (2010). Nexus between Electricity Generation and Economic Growth in Bangladesh; *Asian social Science*, Volume 6, No.12, pp. 16-22.

- Amusa, H., Amusa, K., and Mabugu, R. (2000). Aggregate demand for electricity in South Africa: An alysis using bounds testing approach. *Energy Policy*, 4167-4174.
- Arvanitis, A. (2005). *Foreign Direct Investment in South Africa: Why Has It Been So Low?* Washington: International Monetary Fund.
- Asteriou, D., and Hall, S. G. (2011). *Applied Econometrics*. New York: Palgrave Macmillan.
- ATKearney. (2015). *Foreign Direct Investment Confidence Index. Connected risks: Investing in a divergent world*.
- Borensztein, Z., De Gregorio, J., and Lee, J.-W. (1998). how does foreign direct investment affect economic growth. *Journal of International Economics*, 115-135.
- Carkovic, M., and Levine, R. (2002). *Does foreign direct investment accelerate economic growth?* University of Minnesota. Minneapolis.
- Cheng, BS, Lai, TW. (1997). An investigation of co-integration and causality between energy consumption and economic activity in Taiwan. *Energy Economics*, 19, 435–444.
- Department of planning and the environment. (1977). *The outlook for energy in South Africa*. Prime report for a subsidiary committee of the prime ministers planning advisory council.
- Gujarati, DN. (2004). *Basic Econometrics*. 4th Edition. Singapore, McGraw Hill.
- Gujarati, D. N., and Porter, D. C. (2009). *Basic Econometrics*. Boston: McGraw-Hill Irwin.
- Li, X., and Lui, X. (2005). Foreign direct investment and economic growth: an increasing endogenous relationship. *Journal of World Development*, 393-407.
- Maggiora, D. D., and Skerman, R. (2009). 2009. Johansen cointegration analysis of American and Europearn stock market indices: Sn empirical study, 1-60.
- Masia, J. (2012). *When is foreign direct investment beneficial to a country and when is it not? The case of South Africa. Economic Diplomacy Programme*. SAIIA Policy briefing 44.
- Masuduzzaman, M. (2012). Electricity consumption and economic growth in Bangladesh: Co-integration and causality analysis. *Global Journal of Management and Business Research*. 12 (11).
- McConnell, C. R., and Brue, S. L. (2005). *Economics: Principles, problems and policies*. New York: McGraw-Hill.
- McDonald, D. A. (2009). *Electric capitalism: Recolonising African on the power grid*. Cape Town: HSRC Press.
- Mohr, P., and Rogers, C. (1998). *Macroeconomics*. Johannesburg: Lexicon Publishers.
- Morimoto, R., and Hope, C. (2001). *The impact of electricity supply on economic growth in Sri Lanka*. Judge Institute of Management Studies, University of Cambridge, 1-16.
- National Treasury Republic of South Africa. (2016). Budget Review
-

Noula, AG. (2012). Fiscal deficit and Nominal Interest Rate determination in Cameroon: An application of the loan able funds model. *Global Advanced Research; Journal of Management and Business Studies*. 1(1), 006-029

Organisation for Economic Co-operation and Development. (2008). *Benchmark Definition of Foreign Direct Investment*. (pp. 1-250). France: OECD Publishing.

Snowdon, B., Vane, H., and Wynarczyk, P. (1994). *A modern guide to macroeconomics: An introduction to competing schools of thought*. England: Edward Elgar Publishing Limited.

United Nations. (1999). *World investment report*. United Nations Publication (pp. 1-251). Geneva: United Nations.

United Nations. (2016). *World Investment Report. Conference on Trade and Development*. Geneva: United Nations.

Wolde-Rufael, Y. (2005). Energy demand and economic growth: The African experience. *Journal of Policy Modelling*, 891-903.

SSIRC 2023-066**INCLUSION OF RISK IN DECISION-MAKING BY EXECUTIVE MANAGERS IN A PUBLIC COMPANY****L.J. Mogapi**

North-West University, South Africa

E.G. Lindeque

North-West University, South Africa

ABSTRACT

The inclusion of risk in the decision-making of a specific group represents the value given to that group's management of risk. Although organisational risk management processes define formal guidelines for implementing risk-based decision-making, the relevant documents for the public company studied were unclear about how risk had to be included when executive managers made decisions. This interview-based exploratory qualitative study aimed to understand the cultural influences on accountable inclusion of risk in decision-making by the executives of the organisation. Participating executives were asked about ways in which they included and accounted for risk when making decisions. The thematic content analysis applied to the data used the risk-informed decision culture (RiDC) model to identify codes and subcodes. The findings indicated that the indicators *risk management framework*, *risk leadership: tone*, *risk communication*, and *risk accountability* did not feature strongly among the executives' risk cultural practices. However, they clearly understood their risk management roles and shared understanding of how and when to include risks in decision-making. They gathered information that enabled them to identify and deal with areas of concern during decision-making and interacted with internal role players during decision-making, all of which featured strongly among their cultural practices. Additionally, the findings highlighted the inclusion of risk sense-making in decision-making, which accentuated an additional risk role practice not previously incorporated into the RiDC model. The study approach offered opportunities for assessing specific aspects of risk inclusion in executives' decision-making and designing targeted interventions for improvement, where necessary. The study-specific codebook and the RiDC model offer a potential basis for future research to explore the extent to which inclusion of risk is part of the culture of public companies.

KEYWORDS: risk culture; decision-making; executive managers; public company**1. INTRODUCTION**

A South African public sector company denotes a national government business company established in terms of national legislation, as defined by the Public Finance Management Act (PFMA, 1999). According to section 15(a)(i) of the South African Public Sector Risk Management Framework (the Framework), a public organisation needs to conduct strategic risk identification

and ensure that the risks identified are included in the decision-making processes to implement its strategic mandate effectively (Department of the National Treasury South Africa, 2010). Also, section 2(5)(3)(d) of the Framework requires a public organisation to create a risk management environment that allows for the implementation of management practices that incorporate accountability. It also puts the responsibility on the national public sector companies to develop their own risk management frameworks (company frameworks). A company framework should guide the implementation and maintenance of risk management processes. Accompanying guidelines, templates, and implementation tools were developed by South Africa's National Treasury to improve users' understanding of the Framework and to facilitate its implementation. Also, a web-based e-learning module was developed to provide a practical way for users to test their knowledge of the Framework. However, the Framework does not provide sufficient guidelines on the practical inclusion of risk during decision-making.

The public energy company under study is mandated to generate, transmit, and distribute most of the electricity used in South Africa, which makes the organisation critical to the government's goal of supplying electricity reliably to its people. Accountable inclusion of risk in decision-making can be viewed as the expected risk-based behaviour by members of an organisational group, such as executive managers. A decision-focused view of risk culture was used in this study, as defined by Zaaiman et al. (in progress):

The risk culture of a group is evident from the typical attitudes to risk when decisions are made in the group, i.e., how risk is usually considered when members of the group make decisions. The normal or typical level of active inclusion of risk when decisions are made by an organisational group represents the value attributed to managing risk by the group. Perceived typical inclusion of risk in decision making therefore represents the group's risk culture.

Although the organisational risk management processes of the company defined formal guidelines for the implementation of risk-based decision-making, a 2017 audit finding highlighted the inadequate implementation of the company guidelines requirement for including risk in decision-making by executives of the organisation. The audit concluded that controllable risks were not managed appropriately during decision-making, which led to the realisation of some of the controllable risks of the organisation. The broad and unstructured risk-based decision-making guidelines of the company exacerbated inadequate risk inclusion and accountability during decision-making. In addition, an unpublished study conducted by Gangaram (2020) within the same public energy company, which compared risk practitioners' perceptions of risk culture with those of its business managers, found four priority areas that needed to be addressed to improve the risk culture of the organisation: leadership (tone from the top), accountability for including risk in decision-making, the quality of risk-related information, and a shared understanding of risk. These findings indicated that the cultural practices of executive managers did not provide an adequate favourable setting to encourage accountable inclusion of risk during the decision-making process.

The present interpretative qualitative interview-based study sought to understand the risk culture-related behaviour of the company as it demonstrated the inclusion of risk and accountability in its

executive managers' decision-making. In addition, it explored accounts of the executive management's behavioural practices during their decision-making processes. The following research question guided the study:

How and why do executive managers in a public energy company account for and include risk when they make decisions?

2. LITERATURE REVIEW

This section gives an overview of the theoretical information in the literature relevant to this study. It also provides background on the regulatory perspective on the implementation of accountable inclusion of risk as part of decision-making, the role of executive managers as decision-makers, organisational culture and risk culture, and senior manager risk-based decision-making.

2.1. Regulatory perspective

The South African King IV corporate governance report recommended risk governance practices for organisations (IoDSA, 2016). King IV Principle 11 requires the governing bodies of organisations to treat risk as part of their decision-making and execution of duties. Section 38(1)(a)(i) of the PFMA (PFMA, 1999) puts the responsibility on accounting officers of constitutional institutions to effectively, efficiently, and transparently implement and maintain risk management. This responsibility is also supported by the Framework, particularly section 3(21)(2)(b), which highlights the responsibility of the executive authority for risk management (Department of the National Treasury South Africa, 2010). It requires managers' assurance that strategic choices are based on rigorous risk assessments. Also, section 3(23)(3) requires the audit committee to provide an independent and objective view of the risk management effectiveness of the organisation. The places responsibility on the organisation to develop a risk management framework that guides the implementation and maintenance of the risk management process. This framework should provide guidelines on the inclusion of, and accountability for, risk during decision-making. This section provides a South African regulatory perspective on implementing the inclusion of, and accountability for, risk in decision-making.

2.2. Role of executive management

Executive managers must lead the organisation by putting in place strategies for achieving organisational objectives. This requires executive managers to contribute to information exchange and decision-making. McKenzie et al. (2011) recognise that executive managers as decision-makers need to share information comprehensively and process such exchanged information, as their capacity to deal successfully with the exchange of information is vital to their success as decision-makers. For such success, they must create knowledge management strategies that will foster organisational learning processes among knowledge management practitioners, management, and leadership, thereby building decision-making capability. This systematic learning process will assist in planning for decision-making improvements. It will also provide decision-makers with access to the appropriate knowledge for sound decision-making processes.

The willingness of managers to exchange information extensively can be encouraged by their epistemic motivation, that is, the extent to which an individual is willing to process and maintain correct understanding of information expansively. This willingness to process information systematically and extensively is improved through process accountability, that is, through the need to justify how findings and decisions were reached (Scholten et al., 2007).

Accountability, or the obligation to achieve defined performance criteria, measures, outcomes, and standards (Romzek, 2000), encourages managers to make decisions that allow organisations to manage their challenges as effectively as possible and to assume process accountability. Process accountability has become an area of interest and visibility in the public sector. Group leaders who implement clear and direct process accountability instructions gain control and may improve epistemic motivation essential for decision-making (Scholten et al., 2007).

Briley et al. (2000) highlight that when individuals are required to provide reasons for their decision choices, the information they use to develop such reasons is normally culturally rooted. This allows executive managers to build their decision-making capability by utilising process accountability. By applying process accountability, executives will be able to justify their decisions. The reasons used to justify decision choices are normally culturally based.

2.3. Organisational culture, risk culture, and risk-based decision-making

When looking at the contribution of organisational culture to the implementation of risk management across an organisation, senior management commitment seems to be an important factor. Managers who participate in the implementation of enterprise risk management (ERM) should carefully consider their role in decision-making by taking action to produce a culture that is open, co-operative, and thorough in managing risks. ERM is a methodical process of managing all forms of risk to which an organisation may be exposed (Kimbrough & Compton, 2009). Even though the role modelling of senior managers in risk management is usually highlighted by the senior managers' values in prioritising risk, risk culture is formed by much more than tone from the top. It is also formulated by organisational and group learning about their experience. Subgroups in an organisation generally learn which of the defined formal risk management norms and guidelines are encouraged or discouraged, applauded, condoned, rewarded, or punished. Hence, risk culture is a perceptive and active practice with formal and informal traits and thoughts (Roeschmann, 2014). In principle, a formal risk management framework defines which processes to implement, within which boundaries, and which values to seek. In contrast, risk culture defines which rules and norms are perceived as reasonable and valuable by groups.

There are many definitions of risk culture in publications of regulatory, academic, and professional bodies, but the definition of risk culture chosen as a basis for the design of this study and the coding of the study results is based on the risk-informed decision culture (RiDC) model of the supervisory risk culture guidance, as documented in the RiDC model. This model, shown in Figure 1, provides a dynamic and interlinked view of 10 risk culture indicators (Zaaiman et al., in progress). Based on the aim of the study, I focused on the *risk leadership: tone* and the *risk accountability* culture indicators, as highlighted in Figure .

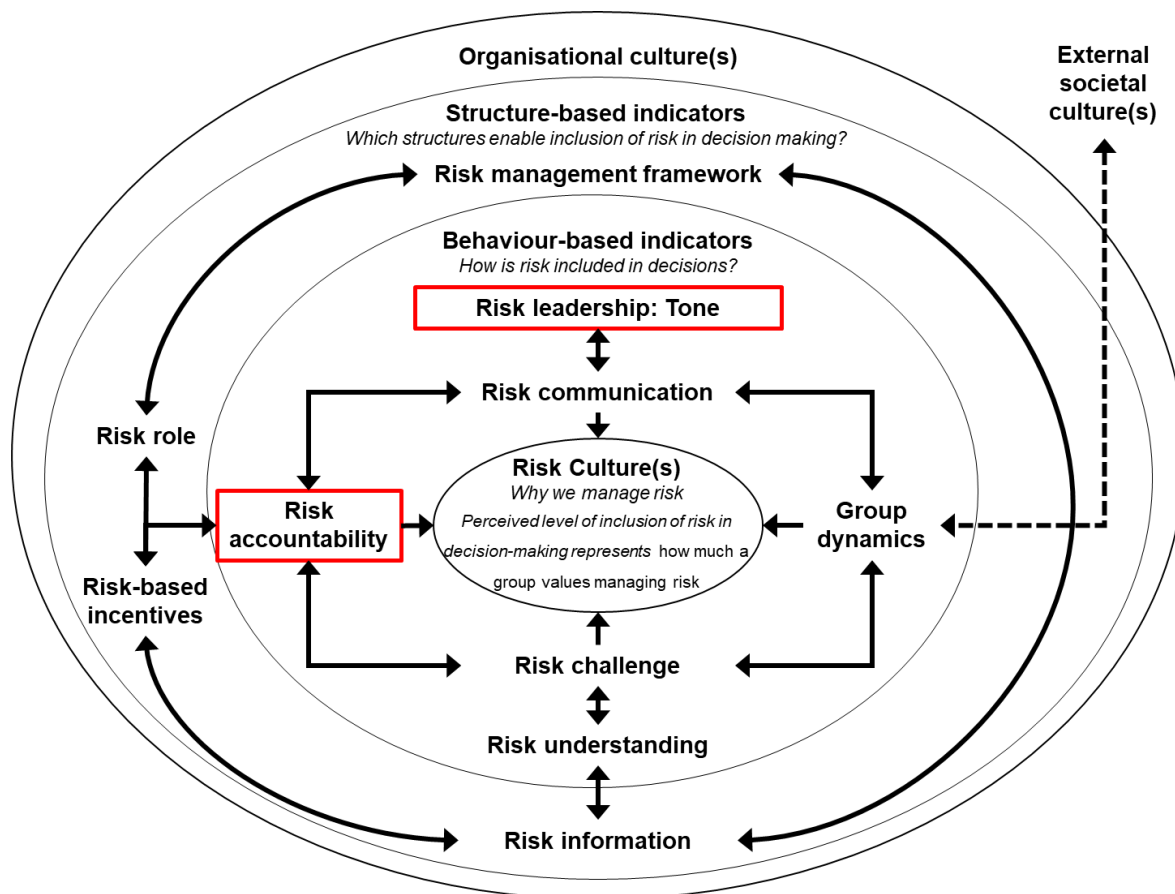


Figure 1: Risk-informed decision culture (RiDC) model (Zaaiman et al., in progress)

Taarup-Esbensen (2019) argues that risk management is moving away from being centred on the organisational information gathering process to the ability to make sense of the gathered information so that risk managers can make correct and well-informed decisions. His observation emphasises the fact that having access to information cannot be equated to either being knowledgeable or having the capability to improve risk mitigation decisions. He also argues that the role of risk management is fundamental for strategic decision-making, thus bringing a different view of the usefulness of risk management as a practice that can guide senior management. Finally, he highlights a change to the role of risk management and strategic leadership in organisations, shifting from technical to risk sense-making. Firstly, this new management role dictates that managers are empowered to mitigate uncertainty and risks and identify possible emerging opportunities. Secondly, risk sense-making provides a foundation that can be used to create meaning and improve success for future decisions. This brings the viewpoint that managers are responsible for developing a risk culture that continually encourages and maintains good morals rather than rules (Taarup-Esbensen, 2019).

The reviewed literature indicates the need for executive managers to desire to participate in shared information exchange and decision-making, thereby encouraging high-quality and sound decision-making when participating in the organisational learning process. Such a process is expected to enable them to build capacity for decision-making, have access to appropriate information for sound

decision-making, and have an opportunity to plan decision-making process improvements. The literature also indicates that shared information exchange increases epistemic motivation and that decisions made by managers are culturally motivated. Managers who participate in decision-making need to practise norms and values that produce a culture that directs sound and high-quality decision-making. They also need to consider risk sense-making to allow themselves to identify not only the risks, but also the opportunities during their decision-making processes.

3. METHODOLOGY

3.1. Research design

This interpretative qualitative interview-based study explored cultural behaviour that demonstrated accountable inclusion of risk in decision-making by executive managers in a public energy company. Using interviews to gather qualitative data allowed the researchers of the study to obtain first-hand information about decision-making from executives in the company, thereby increasing our understanding of how they included risk when they made decisions and expected to be held accountable for such decisions, and of selected individuals' experiences.

3.2. Sampling method

The study target population comprised the 13 executives of a public energy company. They were deemed the most suitable people to provide information, as they were involved in the highest level of decision-making that affected major capital investment decisions and the entire organisation. These participants allowed for a unique opportunity to collect self-reported information on practices at the top management level of the organisation relating to the inclusion of risk and accountability in decision-making.

Non-probabilistic purposive sampling was used to select the participants, as all the executives were invited to participate in the study, and six agreed to participate. As the study was executed in 2020, the sample size was limited by COVID-19 restrictions and organisational changes that were happening at executive level. For example, the organisation had a newly appointed chief executive officer (CEO), and some executives were newly appointed in their positions or reassigned to a different executive position. However, the sample provided a reasonable starting point for an exploratory investigation of the inclusion of risk and accountability at the executive level.

3.3. Research instrument

The participating executive managers were provided with an interview guide that included the research questions. This allowed them an opportunity to formulate their responses before their interview and think carefully about their views on this important topic. Researcher influence and interpretation bias were limited by having the research supervisor join all the interview sessions as a silent observer and provide the researcher with post-interview feedback. However, having an opportunity to prepare in advance may have allowed participants to formulate more positive responses than their actual experiences in the organisation, as they may have preferred to present a positive impression in terms of their knowledge about risk-based decision-making. The willingness

of the participants to participate in the study could also present participant self-selection bias, as the participating executives may have taken risk-based decision-making seriously. The impact of possible positive response bias in the study findings is acknowledged, even though we attempted to minimise it by asking each participant to contextualise the interview discussion by providing an example of a decision in which each was involved over the past year.

3.4. Data collection

Open-ended questions were used to collect narratives about the participants' understanding of risk-based decision-making practices in the organisation. These questions allowed the participants to contribute as much comprehensive information as possible and allowed the researcher to ask follow-up probing questions (Turner, 2010). In addition, a study-specific interview guide was designed to direct the interview process. The questions that the executive managers had to answer were 'How do you include risk when you make decisions?' and 'How do you expect to be held accountable for including risk in your decisions?'. When the interviewer considered a participant as not providing comprehensive information in answering the question, follow-up questions were used to probe further responses.

The interview guide was piloted with two risk managers to evaluate the quality of the interview guide and whether the questions performed as anticipated by the researcher (Chenail, 2011). Based on the feedback from the pilot study, a third question was added to the interview guide to encourage the participants to suggest improvements to the organisational risk-based decision-making process. The question added was based on a metaphorical question from the organisation CEO: 'What will make the car go faster, as it pertains to the risk-based decision-making process?'

3.5. Data analysis

The interviews were conducted remotely using a videoconferencing package because of regulations imposed by the government to curb the spread of COVID-19. The interview data were audio-recorded and subsequently transcribed into descriptive data. The transcribed interview information was then analysed thematically using a qualitative constant comparative approach based on the high-level theoretical RiDC model. This process enabled the identification of study-specific codes and subcodes. A risk culture-related data-driven codebook, specific to the needs of the present study, was developed to interpret risk culture behaviour in the context of the public energy company. Thematic analysis, as a qualitative descriptive approach, provided the researcher with an approach to data analysis (Vaismoradi et al., 2013). A reflective journal was kept to capture the researcher's perceptions, and all decisions were recorded (Noble & Smith, 2015).

In a qualitative study, the researcher must demonstrate that the research has been conducted in a credible, transferable, and trustworthy manner. The limitations associated with the method include the potential for the subjective influence of the researcher on the results, which could affect the replicability of the study (Golafshani, 2003). To limit the interviewer's influence on the interpretation of the data, the research supervisor independently reviewed the data information and provided an independent view of the phrases identified for each code and its subcodes.

4. RESULTS AND DISCUSSION

This section presents the exploratory findings of this study. Firstly, it presents the risk culture-related data-driven codes and subcodes outcomes specific to the study. Secondly, it shows the data-driven risk culture indicators based on the RiDC model. Finally, it summarises the suggested improvements to the risk-based decision-making process based on the question that was added following the pilot study.

4.1. Risk culture-related data-driven codes and subcodes

The section presents risk culture-related data-driven codes and subcodes outcomes specific to the study based on the RiDC theory-driven risk culture codebook. It, firstly, shows the structure-based risk culture-related data-driven codes and subcodes and then the behaviour-based risk culture-related data-driven codes and subcodes.

Structure-based risk culture-related data-driven codes and subcodes

Table 1 summarises the identified structure-based risk culture-related data-driven codes and subcodes as found in the transcribed data per participant as well as the participant average. This average is categorised as ‘partially covered’ (PC) if evidence was found for less than half of the subcodes related to a specific code and as ‘adequately covered’ (AC) if evidence was found for half or more than half of the subcodes related to a specific code.

Table 1: Summary of the structure-based risk culture-related data-driven codes and subcodes (PC: partially covered; AC: adequately covered)

| Risk culture indicators | Risk culture indicator code | Risk culture indicator subcodes | Participants (P) | | | | | | Participant average |
|----------------------------|-----------------------------|---------------------------------|------------------|----|----|----|----|----|---------------------|
| | | | P1 | P2 | P3 | P4 | P5 | P6 | |
| Structure-based indicators | Risk management framework | Implementation guide | | | X | | | X | PC |
| | Risk role | Stature of control functions | | X | X | X | X | X | AC |
| | | Talent development | | | X | X | | X | AC |
| | | Risk sense-making | | X | X | | | | PC |
| Risk information | Risk information sharing | | X | X | X | | | AC | |

The findings on structure-based indicators showed that both the *risk role* and *risk information* were adequately covered as a cultural practice among executive managers. Even though the *risk management framework* was also visible, it presented to a lesser extent than *risk role* and *risk information*. The findings showed that the executives had a clear understanding of their risk management roles and were able to gather information that enabled them to identify and deal with

areas of concern during decision-making. However, the executive managers did not adequately apply executive practices related to including risk during the implementation and maintenance of the risk management framework processes. The *risk role* highlighted a new subcode, *risk sense-making*, previously not incorporated into the RiDC model. This management role highlighted the awareness of the executive managers regarding their role in managing uncertainty and risks and identifying potential emerging opportunities.

Behaviour-based risk culture-related data-driven codes and subcodes

Table 2 summarises the identified behaviour-based risk culture-related data-driven codes and subcodes as found in the transcribed data per participant as well as the participant average. The participant average is categorised as ‘partially covered’ (PC) if evidence was found for less than half of the subcodes related to a specific code and ‘adequately covered’ (AC) if evidence was found for half or more than half of the subcodes related to a specific code.

Table 2: Summary of the behaviour-based risk culture-related data-driven codes and subcodes (PC: partially covered; AC: adequately covered)

| Risk culture indicators | Risk indicator code | Risk culture indicator subcodes | Participants (P) | | | | | | Participant average | |
|----------------------------|-----------------------|---|--------------------|----|----|----|----|----|---------------------|----|
| | | | P1 | P2 | P3 | P4 | P5 | P6 | | |
| Behaviour-based indicators | Risk leadership: tone | Leading by example | | X | | X | | X | AC | |
| | | Learning from past experiences | | | X | X | | | PC | |
| | Risk communication | Open to alternative views | | | | | | X | PC | |
| | | Risk accountability | Ownership of risk | X | X | X | | X | X | AC |
| | | | Escalation process | | | X | | | X | PC |
| | | Clear consequence management | | | X | | | | PC | |
| | Risk understanding | Ensuring common understanding and awareness of risk | | X | X | | | X | AC | |
| Group dynamics | Subgroup reviews | | | | X | X | X | AC | | |

The findings on behaviour-based indicators illustrated that *risk leadership: tone*, *risk communication*, and *risk accountability* were partially covered as a cultural practice among executive managers, whereas *risk understanding*, and *group dynamics* were adequately covered among their cultural practices. This indicated the executives’ shared understanding of their risk management roles and interaction with other internal role players during decision-making.

4.2. Data-driven risk culture indicators based on the RiDC model.

Figure presents the data-driven risk culture indicators based on the RiDC model. It shows the two selected behaviour-based RiDC indicators on which the study focused (*risk leadership: tone* and *risk accountability*), highlighted in solid lines, as well as the structure-based and behaviour-based RiDC indicators identified in the data, highlighted in broken lines.

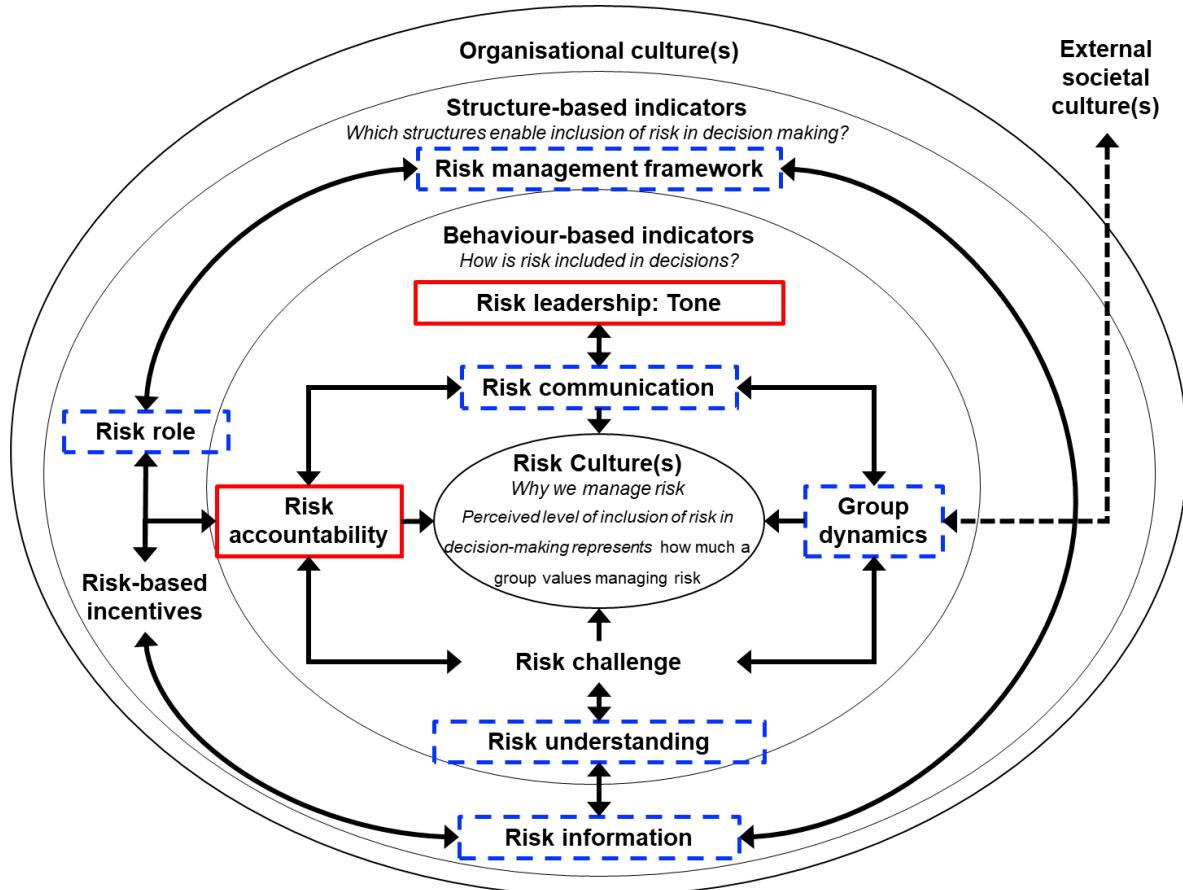


Figure 2: Data-driven risk culture indicators based on the RiDC model (Zaaiman et al., in progress)

4.3. Data-driven suggested risk-based decision-making process improvements

Based on the additional question added from the pilot study, the participants suggested risk-based decision-making process improvements, presented in Table 3, as well as interventions that they thought could be implemented to improve the risk-based decision-making process of the organisation.

Table 3: Data-driven suggested risk-based decision-making process improvements

| Participant | Suggested risk-based decision-making process improvements | Intervention |
|-------------|---|--|
| P1 | ‘I think what we now are trying to do is to move over to digital conversion or the fourth industrial revolution approach. So, we now seriously are looking into that approach to see how we can manage the digital environment.’ | Development of a decision-support system |
| P2 | ‘There needs to be an understanding that risk management is not a principle that sits on its own, but it underpins everything you do in leadership or management.’ | Leadership-awareness training on understanding risk limits and risk appetite |
| P3 | ‘If we understand the risk better, so you understand your appetite. The risk principle is that, and it is captured very well in King IV where it is a requirement now according to the report that you got to look at opportunities as well.’ | Understanding risk limits and risk sense-making |
| P4 | ‘If we have a better-quality risk assessment, we have robust treatment plans to mitigate those risks and the outcome should then manifest in better operational performance, better project delivery within budget and cost and time, etc.’ | Enhancement of the quality of risk assessments and the competence of our teams |
| P5 | ‘If in all those power stations we do not have risk practitioners, you are going to be reactive rather than proactive. In all the instances you need to have proactive measures in place, you need to have those systems in place so that, long before the risk materialises, it has been identified and measures are in place to mitigate it.’ | Adequate risk management practitioners |
| P6 | ‘When it comes to decisions, speed is good when the decision is clear and the amount of exposure is low, but when the exposure is big you know you need to take your time and apply your mind and make sure that when you make the decision you know that you are not exposing the organisation or exposing yourself.’ | Leadership-awareness training on understanding risk limits and risk appetite |

In conclusion, the study findings presented here provide evidence that risk culture practices were present among the executive managers who participated. Even though the study questions focused on the two behaviour-based indicators, *risk leadership: tone* and *risk accountability*, additional indicators were identified that were relevant to the inclusion of risk when executive managers made decisions. The additional behaviour-based indicators found were *risk communication*, *risk understanding*, and *group dynamics*, and the additional structure-based indicators found included *risk management framework*, *risk role*, and *risk information*. The *risk role* highlighted a new subcode, *risk sense-making*, not previously included in the RiDC model.

5. CONCLUSION

Using a thematic content comparison between the RiDC model and the study-specific theory-driven culture codes and subcodes, this study explored cultural behaviour demonstrating accountable risk inclusion in executive managers' decision-making in a South African public energy company. The study examined accounts of the executive management's behavioural practices during their decision-making process in terms of the research question: 'How and why do executive managers in a public energy company account for and include risk when they make decisions?'

The findings showed that certain key risk culture indicators – the *risk role*, *risk information*, *risk understanding*, and *group dynamics* – were all adequately covered as practice among the executive managers. However, other risk culture indicators – the *risk management framework*, *risk leadership: tone*, *risk communication*, and *risk accountability* – were only partially covered. These findings showed that the executive managers employed a range of risk culture practices, but not all of them to the same extent. In addition, the findings highlighted the inclusion of opportunity-seeking in decision-making as an additional risk role subcode, *risk sense-making*, not present in the RiDC model previously.

The study provided a view of the practice of high-level risk-based decision-making within the organisation, which could affect its major capital investments and the operations of the entire concern. The investigation and its findings give information to the organisation that could guide interventions both for improving the specific cultural practices that were partially covered during the decision-making process by executive management and for maintaining those that were adequately covered. Some of the interventions that could improve the cultural practices, as suggested by the executives who participated in the study, included the following: leadership awareness about their risk role, leadership understanding of risk limits, enhancing the quality of risk assessments, improving the risk management competency of teams, adequate risk practitioners, encouraging opportunity-seeking, and managing the digital environment to support decision-making.

The study was limited in that the data came from a small number of interviews, and fewer than half of the study population could participate. Even though the study sample was small to make the findings generalisable, enough clarity and consensus were obtained about risk-based decision-making practices within the organisation at the executive level to give direction for further consideration and possible future action.

The RiDC model and the data-driven codebook provide a basis for future research on cultural practices for the inclusion and accountability of risk in decision-making among executive managers in this organisation and potentially others. They also provide a possible starting point for the development of a quantitative survey to identify risk culture practices at other decision-making levels within the organisation and for further research into the adequacy of risk culture elements as followed in other public sector organisations and the energy sector.

REFERENCES

- Briley, D. A., Morris, M. W., & Simonson, I. (2000). Reasons as Carriers of Culture: Dynamic versus Dispositional Models of Cultural Influence on Decision Making. *Journal of Consumer Research*, 27(2), 157-178. <https://doi.org/10.1086/314318>
- Chenail, R. J. (2011). Interviewing the Investigator: Strategies for Addressing Instrumentation and Researcher Bias Concerns in Qualitative Research., 16(1), 255-262. . *The Qualitative Report*, 16(1), 255-262. <https://nsuworks.nova.edu/tqr/vol16/iss1/16>
- Department of the National Treasury South Africa. (2010). *The Public Sector Risk Management Framework*. Retrieved from <https://oag.treasury.gov.za/Guidelines/Forms/AllItems.aspx>
- Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. . *The Qualitative Report*, 8(4), 597-606. <https://nsuworks.nova.edu/tqr/vol8/iss4/6>
- IoDSA. (2016). *The King IV Report on Corporate Governance for South Africa 2016, Copyright and trademarks are owned by the Institute of Directors in Southern Africa*. The IoDSA website link is: <http://www.iodsa.co.za/?page=AboutKingIV>
- Kimbrough, R. L., & Componation, P. J. (2009, 2009/06/01). The Relationship Between Organizational Culture and Enterprise Risk Management. *Engineering Management Journal*, 21(2), 18-26. <https://doi.org/10.1080/10429247.2009.11431803>
- McKenzie, J., van Winkelen, C., & Grewal, S. (2011). Developing organisational decision-making capability: a knowledge manager's guide. *Journal of Knowledge Management*, 15(3), 403-421. <https://doi.org/10.1108/136732711111137402>
- Noble, H., & Smith, J. (2015, 01/01). Issues of validity and reliability in qualitative research. *Evidence-Based Nursing*, 18(2), 34-35. <http://ejournals.ebsco.com/direct.asp?ArticleID=4373B63C872667EF5070>
- PFMA. (1999). Public Finance Management Act (Act 1 of 1999). South Africa. [Online available from: <http://www.treasury.gov.za/legislation/pfma/act.pdf>] [Accessed: 2020-06-16]
- Roeschmann, A. Z. (2014, 2014/09/01). Risk Culture: What It Is and How It Affects an Insurer's Risk Management. *Risk Management and Insurance Review*, 17(2), 277-296. <https://doi.org/10.1111/rmir.12025>
- Romzek, B. S. (2000, 2000/03/01). Dynamics of Public Sector Accountability in an Era of Reform. *International Review of Administrative Sciences*, 66(1), 21-44. <https://doi.org/10.1177/0020852300661004>
- Scholten, L., van Knippenberg, D., Nijstad, B. A., & De Dreu, C. K. W. (2007, 2007/07/01/). Motivated information processing and group decision-making: Effects of process accountability on information processing and decision quality. *Journal of Experimental Social Psychology*, 43(4), 539-552. <https://doi.org/https://doi.org/10.1016/j.jesp.2006.05.010>
-

- Taarup-Esbensen, J. (2019, 2019/04/01). Making Sense of Risk—A Sociological Perspective on the Management of Risk. *Risk Analysis*, *39*(4), 749-760. <https://doi.org/10.1111/risa.13211>
- Turner, D. W. (2010). Qualitative Interview Design: A practical guide for novice investigators. *The Qualitative Report*, *15*(3), 754-760.
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013, 2013/09/01). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, *15*(3), 398-405. <https://doi.org/10.1111/nhs.12048>
- Zaaiman, H., Van der Flier, H., & Born, M. P. (in progress). Making sense of risk culture during viral global crises: A holistic Risk-informed Decision Culture (RiDC) model.

SSIRC 2023-067**ACCOMMODATIVE LEADERSHIP: UNDERSTANDING THE BEHAVIOURAL ASPECTS OF AFRILLENNIALS IN A SOUTH AFRICAN WORK CONTEXT****I. Kara**

University of Johannesburg, South Africa

J. Toendepi

University of Johannesburg, South Africa

ABSTRACT

Cross-generational diversity has recently created a challenge for corporate leadership, particularly as Afrillennials exhibit different values and a better understanding of technology than previous generations. In South Africa and the rest of the continent, the factors that distinguish millennials from other population groups are different from those of the rest of the world. This particularity is why they are also referred to as Afrillennials. In the new world of work, seven generations work together in an environment characterised by a proliferation of new technologies. Managing multi-generational cohorts to achieve high performance requires effective leadership skills and an understanding of generational theory. In the South African context, Afrillennials, also referred to as Born-frees, represent a significant shift in the composition of the modern workforce. However, other generations often lead them with a limited knowledge of their needs and values. The Afrillennials/Born-frees require leaders who are familiar with the use of social media, have advanced knowledge of the role of technology in the workplace, and understand this cohort's cultural background. In most African countries, attaining independence marked a significant milestone at which the Born-free generation began. Notwithstanding that these Born-frees portray the same characteristics as millennials worldwide, their behavioural characteristics must be further explored. Hence, this study explored the material, behavioural and environmental attributes of Afrillennials to equip leadership teams with the knowledge on how to unleash the potential of young African adults in the workplace. The study utilised a qualitative case study approach where fourteen participants were purposively sampled, and one was conveniently sampled. The findings showed that managing Afrillennials is fraught with challenges, such as the need for accommodative tech-savvy leaders, a lack of understanding of the impact of 4IR technologies on the Afrillennials' performance, a lack of ability to motivate Afrillennials, and the need for a revised learning and developmental culture. Afrillennials prefer individualised guidance and empowerment and expect their leaders to adapt to advancing technologies in the workplace. They require a progressive learning and developmental culture, enabling leaders to cope with their trendy behaviours.

KEYWORDS: Afrillennials, Millennials, Generational theory, future of work, workplace challenges, leadership styles, talent management.

1. INTRODUCTION

This article seeks to articulate the material and behavioural differences between millennials and Afrillennials to provide leadership teams with the knowledge to unlock the potential of African young adults in the workplace and to contribute to the theoretical debate on what impacts leadership styles. It has become evident that the understanding of the behavioural characteristics of Afrillennials, or millennials in Africa, needs to be improved (Mattes, 2011; Jonck et al., 2017; Prinsloo, 2018). Millennial is a term used to refer to any individual born in the US between 1982 and 2004 (Howe & Strauss, 1991). Despite the varying time differences often cited in the literature, Howe, and Strauss' (1991) definition represents the consensus within the majority (Stewart & Warn, 2017; Zabel et al., 2017) of surveyed literature and has been used for this study with South African millennials who are further classified as “Born-frees” or “Afrillennials” (Aires, 2015, p.4). “Born-frees” (born between 1994-2000) are the first generation to come of age politically after the end of apartheid (Jacobs & George, 2021; Martins & Martin, 2010; Mattes, 2011, p.1; Puybaraud, 2010). Afrillennials became a trademark for people whose parents had been influenced by apartheid, a prominent South African cultural, social, economic, and political segregation regime (Davis & Maldonado, 2015).

Bevan-Dye (2012) postulates that cohort characteristics observed as a theory of social history through a generational cohort theory lens will assist in understanding the breadth and length of people's behaviours and attitudes. South African organisations, in Africa and worldwide, are faced with a myriad of challenges in terms of managing generation diversity, particularly given that multi-generations like Baby Boomers (1946-1964), Generation X (1965-1980) and millennials, born between 1981-1996 are substantially represented in the world of work today (Zemke et al., 2013). Millennials are also called Generation Y (Stewart & Warn, 2017) or digital natives (Nolan, 2015). Generation Z (1997–2012) is also starting to enter the workplace, and Generation Alpha, born between 2010 and the mid-2020s, are primarily children of millennials (Zabel et al., 2017). Today's workplace requires accommodative leadership, which can embrace multiple realities such as generations, cultures, and genders and fully understand the uniqueness of individuals (Viljoen, 2015). Van Aalderen and Horlings (2020) state that accommodative leadership practices should involve deciding, communicating, and monitoring the realisation of the shared vision, bringing people in organisations to work together and build trust and legitimacy.

2: BACKGROUND

The “Born-free” generation emerged as a label to describe mostly young black South Africans born after the abolishment of apartheid (Martins & Martin, 2010; Mattes, 2011). South African Millennials, or “Afrillennials”, are people born from 1990 onwards and influenced by major local cultural, political, and economic shifts. Puybaraud (2010) states that this group is a subset of Generation Y, with different goals and aspirations. For this reason, leaders and managers must satisfy their employment wants and needs within the law to ensure that cohorts remain active economic contributors (Puybaraud, 2010). Although limited, some studies on

the South African landscape indicate that what differentiates the SA generational cohorts from the US cohorts is the profound influence of apartheid (Close, 2015; Coe, 2016; Deal et al., 2010; Jonck et al., 2017), as shown in Table 1 below. D’Amato and Herzfeldt (2008) acknowledge that each country has a unique history, which demarcates generational cohorts. Further factors that demarcate cohorts in Africa and SA include female subservience within African patriarchal systems, which is prevalent and commonly expected (Ademilkula, 2018). However, patriarchy varies according to the particularities of cultures, regions, societies, and classes (Aggarwal, 2016).

Table 1: South African Generational Cohorts

| Countries | Generational Cohorts | | | | | |
|---------------|---|-------------------------------------|------------------------------------|--|---|---------------------------------|
| US & UK | Traditionalists or Silent Generations (1928 -1945) | Baby Boomers (1944-1964) | Generation X (1965-1980) | Millennial Generation Y (1981-1995) | Generation Z (1995-2010) | Generation Alpha (2010-2020) |
| South African | Pre-apartheid Generation (1905–1937) | Apartheid Generation (1938–1960) | Struggle Generation (1961–1980) | Transition Generation (1981–1993) | The “Born Free” Generation (1994–2000) | |
| | | | | Afrillennial (1990 – 2000) | | |

Adapted from Close, 2015

Table 1 depicts Afrillennials regarding South African (SA) generational cohorts. Deal et al. (2010) classified those born between (1938-1960) as the Apartheid Generation, the Struggle Generation (1961-1980), Transition Generation (1981-1993), and the “Born-free” Generation (1994-2000). South Africa experienced several challenges during these periods, including the exclusion of the black population from skilled employment during apartheid, with disastrous consequences for most of Generation X. Although the transition to democracy created more comprehensive access to education and skills training, access to employment and skilled work remained vastly unequal and challenging. Jonck et al. (2017) argue that the notion that the term millennials can be used to refer to South African youth like it is used in America to refer to people born between 1981 and 1996, needs to be revised due to the uniqueness of the SA youth’s lived experience.

Most South Africans have experiences vastly different from those of their American counterparts, such as living in dire poverty due to apartheid and its legacies and being excluded from housing, education, and all other infrastructures (Coe, 2016; Jonck et al., 2017). Thus, to date and since the transition to democracy, the youth in SA have not been able to overcome these structural inequalities to catch up with their American counterparts. Even with greater access to smart devices, network connectivity for cellular phones is still mostly scarce

and expensive (Coe, 2016). Access to technology in SA is shaped by class and race (Adonis & Silinda, 2021) and geographical location. Similarly, to refer to the apartheid generation as Baby Boomers is flawed in SA because of the structural inequalities of apartheid and its legacy. The reality today is that black people did not inherit money or houses from their parents, who did not own property by law, as they were stripped of all ownership rights (Jonck et al., 2017). Today's majority of black youth who are trying to improve their lives also experience the burden of the 'black tax' or 'Ubuntu tax' (Morar & Marais, 2022), meaning any successful member of the family pays for the housing, food, education, and health for all other less fortunate members in the family. This burden does not weigh on the Anglo-American millennials, yet it prevents Afrillennials from building up savings toward property ownership. Deal et al. (2010) and Close (2015) also note that SA whites and SA blacks might share birth dates but experience life differently throughout the same socio-political period, thus leading to different generational outlooks between the two groups.

The values ascribed to leadership in organisations by millennials and Afrillennials differ from those of previous generations (Schwab, 2017). Hence, managing the millennials in the Fourth Industrial Revolution (4IR) for optimal performance requires a substantial mix of leadership traits (Bass & Riggio, 2009). Referring to Afrillennials, Coe (2016, p. 1) stated:

“Afrillennials aged 16-26 currently comprise almost 10% of all employed workers. By 2025, this group and the new batch of young workers will add up to nearly 40% of the workforce. By 2030, the original group and their successors will make up about 75% of all staff.”

Afrillennials, the first born-free generation after apartheid, are acutely aware of societal interconnectedness and aspire to contribute positively to all facets of life. This study was conducted in the SA financial sector, where millennials (Afrillennials) now constitute 46% of the general workforce (Schwab, 2017). Like the millennials in the US and UK, Afrillennials grew up in an “always on” era. Exposure and access to technology meant they always looked for more innovative ways to engage and work, expecting a flexible, agile, and more fluid workspace. In addition to being domestically and globally aware, Afrillennials value acquiring the right qualifications, working for global organisations, and accessing the highest salaried role attainable (Coe, 2016). Characterised as being naturally impatient, Afrillennials do not necessarily follow what the previous generations regarded as working their way up the corporate ladder; they want it all, and they want it now (YOLO, you only live once) (Coe, 2016). This sense of urgency might be because, culturally, Afrillennials are expected by their communities to contribute financially to their families (Morar & Marais, 2022; Coe, 2016).

3: LITERATURE REVIEW

The literature review discusses the generation theory, Afrillennials (Born-free), millennials and leadership in a South African context.

3.1 Generation Theory

Chillakuri and Mahanandia (2018) agree with Lyons and Kuron (2014) that the generational theory has four cyclical and universal contexts, which shape people's psychological profiles and behaviour in diverse ways. A cohort or group of people or a generation is a cluster of people with the same range of birth years and who share substantial life proceedings at critical developmental stages (Berger, 2016). D'Amato and Herzfeldt (2008) posit that generational cohorts are groups of people born at about the same period and experienced the same historical events at the same points during their developmental stages. Further, D'Amato and Herzfeldt (2008) posit that being in the same generational cohort fosters similar values, opinions, and life experiences. The importance of generations is embedded in understanding the social and intellectual transitioning structures and an individual's social class position (Huyler et al., 2015). Cohort theory also states that generations develop attitudes and values based on the economic, political, and social events which occurred during their formative years (D'Amato & Herzfeldt, 2008). Furthermore, Bencsik et al. (2016) consider generations as cohorts of people travelling through time concurrently and sharing everyday lifestyles and habits. Similarly, a cohort is "a group of people who enter a system simultaneously and share common experiences that distinguish them from others" (Lyons & Kuron, 2014, p.76).

Hence, the generational theory refers to the characteristics of generations formed by events or circumstances in the lives of its members at a given time (Coates, 2017). Comparable life experiences or shared experiences result in the formation of similar behaviours and cognitive processes (Bencsik & Machova, 2016). DeChane (2014) argued that the theory missed historical events in role explanation, potentially leading to unanticipated reactions and influencing future generations. According to Randal (2016), the concept of generations resulted from increased shared awareness from cohort to cohort, leading to unique attributes, which are then classified as broad characteristics of a new generation. These characteristics include meaningful motivation, innate familiarity with know-how, challenging the hierarchical *status quo*, resilience, flexibility, and being open and adaptive to change (Berger, 2016). Deal et al. (2010) and Close (2015) depict the South African landscape as in Table 1, where the generational cohorts in SA, delineated in terms of the apartheid legislation, differ from the US and UK definitions.

It is widely accepted that the group born between 1938 and 1960, known as the Apartheid Generation, will have no first-hand knowledge and no memory of pre-Apartheid SA (Mattes, 2011) and that the Struggle Generation comprises black people born between 1961 and 1980 (Deal et al., 2010). Additionally, it has been suggested that the "Struggle Generation" label would mainly not include SA white people born during the same period. These fundamental differences between black and white people in this generation mainly concern their thought of the "struggle" as a movement to emancipate blacks or support apartheid legislation (Deal et al., 2010). Close (2015, p. 66) indicates that milestone events like economic sanctions, the first television broadcast allowing global viewership and broader access to information with "first-hand coverage of the struggle" shape these cohorts.

The Transition Generation consists of people born between 1981 and 1993, growing up under apartheid rule, where their parents and older siblings were part of the liberation movement and struggle activities (Deal et al., 2010). This cohort's schooling was mostly interrupted by liberation activities, and as adults, class segregation is a reality. The generation born after the democratisation of SA, between 1994 and 2000, which has zero memory and no lived apartheid-legislated experiences, is classified as the "Born-free" generation (Martins & Martins, 2010) and is mainly black. Research has shown that all races within this SA cohort now have more and increasingly less in common with previous SA generations and can be considered the millennials of South Africa (Martins & Martins, 2010).

3.2 Leadership

Restoring faith and respect in leadership and business is nearly impossible for leaders (Schwab, 2017). During turbulent or uncertain times, leadership is expected to show how organisations can move forward and set an example for others (Schiuma, 2017). Leaders should use the chance and power to shape the 4IR and steer it toward their organisation's values and success (Nguyen et al., 2016). To do so, executives must build an all-inclusive framework in line with global standards, with an internationally collective understanding that technology affects their employees' lives, underlining how it transforms the economic, social, cultural, and human surroundings on a macro level (Colombo et al., 2017).

Accommodative leadership accommodates and embraces multiple realities and fosters a talent-centric workplace by harnessing collective intelligence and fostering cordial interpersonal relations. This type of leadership allows the organisation to tap into the talents of individual staff members for superior performance. Similarly, Viljoen (2015) suggests that individual uniqueness must be articulated, appreciated and used effectively. Van Aalderen and Horlings (2020) agree that accommodative leadership allows people to work together while capitalising on interpersonal relations underpinned by trust and justice. Toendepi (2017) is also of the view that collective consciousness influences harmony in the workplace.

Millennials may hold diverse workplace expectations, but businesses must attract and retain this somewhat young generation to build robust future personnel while continuing to be competitive (Cahill & Sedrak, 2012). The beliefs held by millennials ought to be represented in the workplace for this generation to be able to work efficiently (Schreier, 2012). The role played by leaders remains crucial in this regard due to the significant influence of their leadership styles on the happiness, engagement, and retention of millennials (Espinoza, 2012). Although organisations feel that leaders have the know-how to integrate Afrillennials into the workspaces (Espinoza, 2012), Afrillennials embrace environments where they feel understood and mostly regard leaders as challenged. Therefore, organisations may lose Afrillennials if their leaders are perceived as inflexible, authoritarian, and unwilling to accommodate them. For this reason, the need for the two-generational worlds of leaders and Afrillennials to come together for the greater good of everyone cannot be emphasised enough (Coe, 2016).

Roongrerngsuke and Liefoghe (2013) assert that multigenerational workforces in multicultural environments create leadership challenges worldwide. Although leadership has been discussed at length within the literature on management, it is often described as a soft skill incorporating individual knowledge (Achua & Lussier, 2013; Vasconcelos et al., 2016). Leaders must be able to motivate and inspire people toward achieving a common goal, in addition to encouraging extraordinary performance (Northouse, 2021). Considering current developments in organisational sustainability (Wong, 2018), leadership relates to the individual's ability to inspire actions, which would not have occurred without their influence (de Vries & Florent-Treacy, 2016). Svensson and Wood (2016) concur and describe leadership effectiveness as the ability of individuals, groups, or organisations to inspire and achieve a shared vision, which has the potential to enhance long-term performance and sustainability. Furthermore, the extent to which the leader's group or organisation completes its task successfully and achieves its objectives is defined as leadership effectiveness (Antonakis et al., 2019).

3.3 Afrillennials

Afrillennials, as young South African consumers, are social activists who take an interest in their communities, often using social media platforms (Du Chenne, 2018). For this reason, they expect the social media content to be customised to suit the context of the message and the interface of the media platforms used. South African millennials also search for meaning in their African culture (Du Chenne, 2018). They are conscious of the Ubuntu way of life, where the family and the community must be assisted. To be a successful leader in South Africa, one must embrace the complexity of this new worker or employee and develop advanced structures and methods to manage the changing leadership landscape. Coe (2016, p. 1) goes on to describe Afrillennials as:

“a generation who want flexibility, thrive on constant feedback and engagement, seek instant gratification, generally embrace cultural diversity through collaboration, and fear failing”.

While several authors and research projects focusing on the generational terms, labels, classifications, periods, and definitions for millennials have given a generic, no specific country and cultural reference to the group, the SA cohort demands that socio-political, social, and economic differences based on the cultural background be strongly considered. This consideration will make the label “Afrillennials” more relevant and appropriate to SA. Afrillennials, to a more significant extent, have the same behaviours as millennials elsewhere in that they value intellectual, competent, and knowledgeable leaders (Michalek & Long, 2013). Swain (2019) investigated the leadership preferences of millennials and found five major themes: competence, interpersonal relations, people management, self-management, and communication. A leader's capacity to manage others means that he/she can create a pleasant working environment on the shop floor (Lee, 2021).

Like Millennials, Afrillennials also demand frequent and effective communication through social media, with millennials stating that working under a leader who speaks with conviction, passion,

and persuasion is essential (Lafferty, 2017). The South African environment requires suitable social structures that can facilitate meaningful discussions, interactions and dialogue and promote the creation of several solution scenarios through an efficient, inclusive, and effective interpersonal exchange (Toendepi, 2013). As a result, Afrillennials adopted Ubuntu attributes of togetherness and humane behaviours from their parents. This philosophy often creates a paradox for Afrillennials, as they want to be individualistic and trendy like their counterparts elsewhere in the world and still be culturally correct. However, both cohorts value honesty in a leader, determination, loyalty, competence, ambition, motivation, caring, self-confidence, foresight, and imagination. Similarly, Salahuddin (2010) found that giving millennials feedback and making them feel free to share their ideas, opinions, and suggestions on improving performance and operational productivity are preferred. Additionally, Parry and Urwin (2017) found that millennials value a leader's commitment the most, followed by intense focus, ability to encourage and motivate followers, optimism, dependability, experience, supportiveness, trust, creativity, and honesty. Millennials want a committed leader who genuinely cares about them, listens, encourages, and supports them (Kelly et al., 2017; Sessa et al., 2007). Toendepi (2013) argues that leadership decisions can benefit from the input and perspectives of those who face social and economic challenges, along with workplace obstacles.

3.4 Millennials

Compared to earlier generations, millennials require different levels of hierarchy, responsibility, flexibility, feedback, and job security in their place of work (Eversole et al., 2012). Millennials want continual input, whereas Generation X and Baby Boomers are satisfied with monthly feedback (Cahill & Sedrak, 2012). Furthermore, although most millennials prefer a flat organisational structure, Generation X and Baby Boomers respect specific criteria of a chain of command in the place of work (Raines, 2002). The millennial generation is the first generation born into a technologically savvy environment with broad access to technologies such as email, computer games, social media platforms and the internet (Ferri-Reed, 2014); the same can be said of Afrillennials. Millennials require workplace flexibility in terms of working hours, location, and a facility to remain connected 24/7; they want to work from anywhere at any time to find a balance between a professional job and personal life (Schwab, 2017).

Despite the variety of individual characteristics among millennials, many studies argue that this generation differs dramatically from prior generations (McNeil & Borg, 2018). For instance, research has revealed variations in work-life balance, technology expertise, motivation, job agility, and the desire for responsibility between millennials and earlier generations (Ferri-Reed, 2014). Millennials were raised by parents actively involved in their children's lives, instigating them to view their parent-child relationship as a peer rather than a relationship between parents and children (Stein, 2013). As a result, they see a future with no chain of command and seek leaders who can talk to them as peers (McNeil & Borg, 2018). This consideration corroborates Schwab's (2017) postulation that millennials care more about collaboration and equality than Baby boomers and Generation X. Personal touch with their boss is essential, and so is a recognition of their efforts through a relationship built on inclusion, respect, and trust (Kian et al., 2013).

Since most millennials receive much attention from their parents, they are more inclined than Baby Boomers and Generation X to demand more attention and counsel at work (Salahuddin, 2010). Furthermore, regardless of their high productivity, millennials are frequently commended for their work by their parents (Thompson & Gregory, 2012), resulting in a high level of self-assurance, optimism, and the belief that they can accomplish more (McNeil & Borg, 2018). Accordingly, millennials often have a positive attitude toward difficult jobs and desire to be given much responsibility to show what they have learned (Ferri-Reed, 2014). Not only can they become aggravated, preferring to see outcomes right away, but they are more prone to think about the next opportunity instead of making the most of the current situation (McNeil & Borg, 2018). Additionally, most of them feel dissatisfied with their current workplace due to the belief that staying in the same company for a long time hinders progress and opportunities for growth (McNeil & Borg, 2018).

5. METHODOLOGY

This qualitative case study selected 14 Afrillennials and one senior from a business unit in a major South African bank. Using a case study approach, the study was able to comprehensively analyse a significant amount of information about this unit (Neuman, 2014; Gerring, 2004). Ethical clearance to undertake the study was granted by the IPPM Ethics Committee (IPPM2021-578M). The population consisted of millennials employed by the financial institution, and the inclusion criteria were permanent employment for at least one year and having been born between 1981-1996. Purposive, non-probability sampling (Maree, 2017) and convenience sampling (Jawale, 2012) were adopted in identifying participants. We conveniently sampled a 60-year-old participant who was perceived to be successful in leading millennials. Leedy (2010) and Gill et al. (2010) concur that a sample is a representative subset of a population that ensures the findings can be applied to the entire population. Hence, the sample comprised 15 participants, as profiled in Table 2 below.

To ensure and maintain participant anonymity, the labels P1 to P15 were utilised. In terms of race, the sample consisted of nine individuals identifying as black, three as Indian, and three as white. In terms of gender, there were seven males and eight females. Data was collected through semi-structured face-to-face interviews to promote productive interactions (Saunders et al., 2019). Consent seeking both willingness to participate and permission to be recorded was sought prior to the interviews. An interview guide with 25 pre-determined questions on the millennials' preferred leadership styles was prepared to facilitate and provide some structure to the interviewing process (Collis & Hussey, 2014).

Table 2: Sample Profile

| Participant | Gender | Race | Age | Educational level | Tenure |
|-------------|--------|--------|---------|---------------------|---------|
| P1 | Male | Black | Over 60 | University graduate | Over 25 |
| P2 | Male | Black | 40 | University graduate | Over 5 |
| P3 | Female | Indian | 40 | University graduate | Over 5 |
| P4 | Male | Black | Over 30 | University graduate | Over 5 |
| P5 | Male | Black | Over 30 | University graduate | Over 3 |
| P6 | Female | Indian | Over 30 | University graduate | Over 3 |
| P7 | Female | Black | Over 20 | University graduate | Below 3 |
| P8 | Male | Black | Over 30 | University graduate | Over 3 |
| P9 | Female | White | Over 30 | University graduate | Below 3 |
| P10 | Female | Indian | Over 25 | University graduate | Below 3 |
| P11 | Female | Black | Over 20 | University graduate | Below 3 |
| P12 | Male | Black | Over 25 | University graduate | Below 3 |
| P13 | Female | White | Over 20 | University graduate | Below 3 |
| P14 | Male | Black | Over 25 | University graduate | Below 3 |
| P15 | Female | White | Over 20 | University graduate | Below 3 |

Authors owns.

The analysis followed Braun and Clarke’s (2016, p.60) six stages of familiarisation with the data: initial coding, generating of themes, reviewing of themes, naming themes, and the final stage of writing the analysis. Table 3 shows stage 2.

Table 3: Initial Coding

| Script Of Participant 3 | Code | Sub-theme |
|--|--|---|
| Mental simulations from transformational leaders are effective in stimulating the performance of millennials..... The participatory leadership style manifests as an open policy leader willing to listen, help and guide relevant information, and always consult with the team and seek other perspectives before deciding. It is better for one millennial on my team to give him space, while another would prefer to give me daily updates adaptable to developing technologies. The millennials are full of positive good ideas and inclusiveness, which can be utilisable if they adapt to the business environment. Leaders see informal conduct as an investment in millennials, increasing personal connection and effective working relationships. It used to challenge the old guys when they could not tolerate them. We face challenges as leaders who are not accommodative because we come from different generations. | - Mental simulations from transformational leaders are effective in stimulating the performance of millennials - The participatory leadership style manifests itself as an open policy leader willing to listen, help and guide relevant information, and always consult with the team and seek other perspectives before deciding. - Leaders see informal conduct as an investment in millennials, increasing personal connection and effective working relationships. -It used to challenge the old guys when they could not tolerate them. -We face challenges as leaders who are not accommodative because we come from different generations. | Transformational leadership Participatory leadership style Adaptability to developing technologies. Informal conduct Accommodative leadership |

Authors owns.

A manual approach was used in analysing the data, utilising a colour-coded system to highlight important, pertinent, and recurring codes (Buetow, 2014). The resulting themes were generated by combining sub-themes with similar properties, as demonstrated in Table 4 below.

Table 4
Generating Themes

| Sub-theme | Theme |
|--|--|
| -Transformational leadership - Participatory leadership style | Effective leadership styles for the optimal performance of millennials |
| -Adaptability to developing technologies. - Informal conduct - Accommodative | Millennials' expectations of leadership |

Authors owns.

This article is based on one of the five themes that emerged, which is accommodative leadership. The final stage of Braun and Clarke’s (2016) stages involves a presentation of the findings. The findings were presented in a narrative style where direct quotes from the participants demonstrate the findings, which are organised around specific themes (Percy et al., 2015; Reay et al., 2019). Johnston et al. (2021) support De-Vos et al. (2011) assertion that narratives not only re-tell information but also interpret what the participants shared. In this style, a discussion in which findings are considered against existing literature follows, while another presentation option is to combine the discussion and the findings (Burnard et al., 2008). In this study, the former style was followed.

6. FINDINGS

Afrillennials (1990-2000) can be categorised as a sub-cohort in the context of the SA generational cohorts. For the first time in South Africa, four generations of people are together in the workplace, where, in most cases, the older generations are the superiors. Under those circumstances, Afrillennials demand that a reciprocal and transparent relationship should exist. As digital natives, they demand frequent communication using high-tech gadgets and social media and expect their leaders to keep up. The older generations regard social media as informal and unsuitable for business, whereas the Afrillennials’ work and private life are intertwined. The participants argued the following:

“Leaders must see informal conduct as an investment in millennials, which increases personal connection and results in effective working relationships. Informal engagement has also improved millennial performance, as leaders can explore millennial strengths and weaknesses through formal engagement”. P1

“The informal conduct with the millennials allows them to be flexible. The expectation of flexibility is key to making them leaders as millennials will experience a sense of being appreciated as they can combine work and private life”. P12

The participants see informal engagements outside work, like social drinking or playing golf, as activities that can enhance their relationships with their superiors, paving the way for connectedness and mutual understanding in the workplace.

“The millennials are supposed to be flexible. That is why I propose informal conduct when engaging them. Combining work and private life helps millennials perform better, as they no longer must choose between work or life, leading to better performance outcomes”. P14

The participants singled out their leaders as non-accommodative to what motivates them and non-responsive to their needs and viewpoints. Such leadership behaviours and attitudes prevent leaders from comprehending the Afrillennials’ needs and aspirations, thus creating discord when mentoring and directing them.

“Some of the leaders are not accommodative. This affects the millennials’ adaptability, flexibility and management. This also inhibits the close understanding of the millennials’ expectations of the industry”. P.11

One participant who is in a managerial position stated:

“I’m more tolerant of “them”. Afrillennials are disruptive, but disruption is good for progress when we cross our comfort zone. It is important for innovation, so leaders must embrace them”. P5

Participant 9 is a manager who acknowledges where the generational conflict in the workplace stems from.

“It used to challenge the old guys when they could not tolerate millennials. We face challenges as leaders because we come from different generations. We should be open to change and embrace what the millennials bring, rather than being dictatorial in our management style”. P9

The participants confirmed that most of their previous generation leaders neither understand nor tolerate their behaviour in most cases. If leaders can be more accommodative, there would be a chance to foster relationships where Afrillennials could confide and engage leaders, assisting them in capitalizing on their subordinates’ strengths and weaknesses for effective performance. Participants argued that the leadership within organisations lacks a learning and developmental culture, which affects their capacity and ability to manage millennials.

“Organisations often lack a learning and development culture that should prevail to guide leadership in dealing with the millennials to cope with the emerging demands of the 4IR in the financial services sector”. P3

Additionally, Participant 13 further stated that:

“The culture of continuous learning and development of future skills is not clearly defined in policy, thereby limiting leadership capacity development. The leadership skills remain conventional and coming short in managing the behaviours and expectations of the millennials in the financial sector”. P13

A stronger focus should also be placed on human capital development, creating opportunities for personal development, growth, and a thrust towards organisational success.

7. DISCUSSION

The aftermaths of racial segregation in South Africa profoundly affected the very fabric of society at the social, economic, and political levels and shaped the experiences of different generations. D’Amato and Herzfeldt (2008) acknowledged that each country has a unique history, which demarcates generational cohorts. Therefore, each generation is shaped by its collective memory, which impacts the values held in the workplace (Ferri-Reed, 2014). The ability for

organisations to recognise and utilise common workplace values among different generations can be beneficial, especially when accounting for cultural disparities. Afrillennials and millennials worldwide prefer pleasant, respectful, personable leaders who can provide constructive feedback. Lee (2021) notes how both cohorts prefer a flexible and pleasant working environment. The findings of this study showed that Afrillennials, contrary to those leading them, prefer informal conduct with their leaders through social media because their work and private lives are intertwined (Du Chenne, 2018). Afrillennials demand workplace flexibility regarding working hours, location, and the ability to stay connected 24/7. After all, they enjoy using technology to communicate and direct their social life. Schwab (2017) states that this generation can work from anywhere and anytime and still find a balance between a professional job and a personal life.

These findings show that Afrillennials require accommodative leadership, which can offer them a personal touch and recognise them for their efforts through a relationship built on inclusion, respect, and trust (Kian et al., 2013). They also desire an accommodative leadership which is tech-savvy, can show appreciation, and remain tolerant of their demand for a more fluid workplace, an acceptance of multiple realities, and the ability to bring people to work together in an environment characterised by harmony, trust, fun and justice (Espinoza, 2012; Toendepi, 2017; van Aalderen & Horlings, 2020). The participants expressed disappointment with the absence of a forward-thinking approach to learning and development, mainly when dealing with Afrillennials, and the lack of ability to adapt to the increasing need for technology proficiency in the workplace. A culture that does not prioritise progressive learning and development can hinder the acquisition of the future-ready skills needed for effective leadership in today's unpredictable environment. This insufficiency can result in difficulties in managing the behaviours and expectations of millennials/afrillennials.

8. CONCLUSION

The article aimed at exploring the behavioural patterns of Afrillennials in the context of South African workplaces. The study offered insights into cohort differences and generational similarities regarding how leadership and organisations can cope with Afrillennials, who increasingly represent the majority in the SA workplace. Hence, understanding their perspective on how they should be led can enhance talent management awareness. Afrillennials in South Africa exhibit generational traits and behaviours influenced by their cultural norms and lived experiences to the extent of shaping their values, customs, and norms. Afrillennials prefer accommodative leaders who are tech-savvy, sociable, effective communicators, and appreciative of generational differences. Hence, equipping leadership teams with knowledge on how to unleash the potential energy of these young African adults in the workplace is essential. The two-generational worlds of leaders and Afrillennials need to come together for the greater good of everyone (Coe, 2016).

REFERENCES

- Aalderen, N., & Horlings, L.G. (2020). Accommodative public leadership in wind energy development: Enabling citizens initiatives in the Netherlands. *Energy Policy*, 138, 1-13, <https://doi.org/10.1016/j.enpol.2020.111249>
- Achua, C.F., & Lussier, R.C. (2013). *Effective leadership*. South-Western Cengage Learning.
- Ademilkula, S.O. (2018). *Patriarchy and Women Abuse: Perspectives from ancient Israel and Africa*. OTE 31(2) p.339–362. DOI: <https://doi.org/10.17159/2312-3621/2018/v31n2a5>.
- Adonis, C. K., & Silinda, F. (2021). Institutional culture and transformation in higher education in post-1994 South Africa: a critical race theory analysis, *Critical African Studies*, 13:1, 73-94, DOI: [10.1080/21681392.2021.1911448](https://doi.org/10.1080/21681392.2021.1911448)
- Aires, R. (2015). Gaining an understanding of millennials' needs and expectations on entering the workplace, in order to be able to attract and retain millennial talent. *Seminal Study* https://studentvillage.co.za/wp-content/uploads/2021/06/Student-Village_Afrillennial-Report_2015v1.pdf
- Antonakis, J., Ashkanasy, N.M., & Dasborough, M.T. (2019). Does leadership need emotional intelligence? *The Leadership Quarterly*, 20(2), 247-261.
- Bass, B., & Riggio, R. (2009). *Transformational leadership* (2nd ed.). Lawrence Erlbaum.
- Bencsik, A., & Machova, R. (2016). Knowledge sharing problems from the viewpoint of intergeneration management. 4th International Conference on Management, Leadership and Governance (ICMLG).
- Bencsik, A., Horváth-Csikós, G., & Juhász, T. (2016). Y and Z generations at workplaces. *Journal of Competitiveness*, 8(3). 90-106. <https://doi.org/10.7441/joc.2016.03.06>
- Berger, R. (2016). *The industries 4.0 transition quantified. How the fourth industrial revolution is reshuffling the economic, social and industrial model*. Roland Berger. <https://www.rolandberger.com/en/Media/New-study-Industrie-4.0.html>
- Bevan-Dye, A.L. (2012). Relationship between self-esteem and Facebook usage amongst black Generation Y students. *African Journal for Physical, Health Education, Recreation and Dance, Supplement*, 1(1), 33–49
- Braun, V., & Clarke, V. (2016). (Mis)conceptualising themes, thematic analysis and other problems with Fugard and Potts' (2015) sample size tool for thematic analysis. *International Journal of Social Science Methodology*, 19(6), 739-743. <https://doi.org/10.1080/13645579.2016.1195588>
- Burnard, P., Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Analysis and presenting qualitative data. *British Dental Journal*, 204, 429-432. <https://doi.org/10.1038/sj.bdj.2008.292>
- Cahill, T. F., & Sedrak, M. (2012). Leading a multigenerational workforce: Strategies for attracting and retaining millennials. *Frontiers of Health Services Management*, 29(1), 3-15.

- Chillakuri, B., & Mahanandia, R. (2018). Generation Z entering the workforce: The need for sustainable strategies in maximizing their talent. *Human Resource Management International Digest*, 26(4), 34-38. <https://doi:10.1108/HRMID-01-2018-0006>
- Coates, T.N. (2017). The first white president. *The Atlantic*, 320(3), 74-87.
- Coe, A. (2016). You have heard of the millennial – now meet the Afrimillennial. Retrieved from <https://www.smesouthafrica.co.za/16775/You-have-heard-of-the-millennial-now-meet-theAfrimillennial/> (Accessed 20 November 2018).
- Collis, J., & Hussey, R. (2014). *Business research. A practical guide for undergraduate and postgraduate students* (4th ed.). Palgrave Macmillan.
- Colombo, A.W., Karnouskos, S., Kaynak, O., Shi, Y., & Yin, S. (2017). Industrial cyber-physical systems: A backbone of the fourth industrial revolution. *IEEE Industrial Electronics Magazine*, 11, 6-16. <https://doi.org/10.1109/MIE.2017.2648857>
- Close, D.S. (2015). Generational motivation and preference for reward and recognition in a South African facilities management firm [Dissertation]. Unisa. <http://hdl.handle.net/10500/18558>
- D'Amato, A., & Herzfeldt, R. (2008). Learning orientation, organizational commitment and talent retention across generations. *Journal of Managerial Psychology*, 23(8), 929-953. <https://10.1108/02683940810904402>
- Davis, D. R., & Maldonado, C. (2015), 'Shattering the glass ceiling: The leadership development of black American women in higher education', *Advancing Women in Leadership* 35, 48.
- Deal, J.J., Altman, D.G., & Rogelberg, S.G. (2010). Millennials at work: What we know and what we need to do (if anything). *Journal of Business and Psychology*, 25(2), 191-199.
- Deal, J.J., Stawiski, S., Graves, L., Gentry W., Ruderman, M., & Weber, T. (2010). Perceptions of authority and leadership: a cross-national, cross-generational investigation. In E. Ng, S. Lyons & L. Schweitzer (Eds.), *Managing the New Workforce* (pp. 281 - 306). Edward Elgar Publishing.
- DeChane, D.J. (2014). How to explain the millennial generation? Understand the context. *Inquiries Journal*, 6(03).
- De Vries, K. M., & Florent-Treacy, E. (2016). Global leadership from A to Z: Creating high commitment organisations. *Organizational Dynamics*, 30(4), 295-309. [https://doi.org/10.1016/S0090-2616\(02\)00067-0](https://doi.org/10.1016/S0090-2616(02)00067-0)
- Du Chenne, S. (2018). Five youth market trends for 2018. Retrieved from <https://www.businesslive.co.za/redzone/news-insights/2018-02-14-five-youth-market-trendsfor-2018/> on 15 November 2018
- Espinoza, C. (2012). Millennial integration: Challenges millennials face in the workplace and what they can do about them [PhD]. Antioch University.
- Eversole, B.A.W., Venneberg, D.L., & Crowder, C.L (2012). Creating a flexible organizational culture to attract and retain talented workers across generations. *Advances in Developing Human resources*, 14(1), 607-624. <https://doi.org/10.1177%2F1523422312455612>
- Ferri-Reed, J. (2014). Millennializing the workplace. *The Journal for Quality and Participation*, 37(1), 13-14. <http://eres.regent.edu:2048/login?url>
-

-
- Gerring, J. (2004). "What is a case study and what is it good for?" *American Political Science*, 98(2), 341-354. <https://www.jstor.org/stable/4145316>
- Gill, J., Johnson, P., & Clark, M. (2010). *Research methods for managers*. Sage.
- Howe, N., & Strauss, W. (1991). *Generations: The history of America's future, 1584 to 2069*. William Morrow & Company.
- Huyler, D., Pierre, Y., Ding, W., & Norelus, A. (2015). *Millennials in the workplace: Positioning companies for future*. Florida International University, USA.
<https://core.ac.uk/download/pdf/46951046.pdf>
<https://scholarworks.waldenu.edu/dissertations/2087>
- Jacobs, T., & George, A. (2021). Democratic South Africa at 25 – a conceptual framework and narrative review of the social and structural determinants of adolescent health. *Global Health* 17, 35, 1-11 <https://doi.org/10.1186/s12992-021-00679-3>
- Jawale, K.V. (2012). Methods of sampling design in legal research. *International Interdisciplinary Research Journal*, 2(6), 183-190.
- Jonck, P., Van der Walt, F., & Sobayeni, N.C. (2017). A generational perspective on work values in a South African sample', *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde*, 43, a1393, 1-9 <https://doi.org/10.4102/sajip.v43.1393>
- Johnston, O., Wildy, H. & Shand, J. (2021). Student voices that resonate-Constructing composite narratives that represent students' classroom experiences. *Qualitative Research*, 14687941211016158.
- Kelly, S., Ferenzy, D., & McGrath, A. (2017). What financial institutions and Fintechs are partnering for inclusion: Lessons from the frontlines. *Center for Financial Inclusion at Accion*. https://content.centerforfinancialinclusion.org/wp-content/uploads/sites/2/2018/08/IIF-CFI_FI-Fintech_Partnerships_Final.pdf
- Kian, T.S., Yusoff, W.F.W., & Rajah, S. (2013). Relationship between motivations and citizenship performance among generation X and generation Y. *International Journal of Academic Research in Business and Social Sciences*, 3(11), 53.
- Lafferty, B.A. (2017). Myers-Briggs and servant leadership: The servant leader and personality type. *The Spears Center for Servant Leadership*. https://www.spearscenter.org/Myers-BriggsServant-Leadership_Final.pdf
- Lee, M.R. (2021). *Leading virtual project teams: Adapting leadership theories and communications techniques to 21st century organizations*. CRC Press.
- Leedy, P.D. (2010). *Practical research: planning and design* (9th ed.) Pearson Education.
- Lyons, S., & Kuron, L. (2014). Generational differences in the workplace: A review of the evidence and directions for future research. *Journal of Organizational Behavior*, 35(1), 139-157.
- Maree, K. (Ed.). (2017). *Psychology of career adaptability, employability and resilience*. Springer.
- Martins, N. & Martins, E.C. (2010). Assessing Millennials in the South African work context. In: Ng, E., Lyons, S. & Schweitzer, L. (Eds.), *Managing the New Workforce* (pp. 152 – 177). Cheltenham: Edward Elgar Publishing
-

- Mattes, R. (2011, April). The “born free”: The prospects for generational change in post-apartheid South Africa. *Afrobarometer Working Paper No. 131*. Retrieved from: http://www.afrobarometer.org/files/documents/working_papers/AfropaperNo123.pdf
- McNeil, J., & Borg, M. (2018). Learning spaces and pedagogy: Towards the development of a shared understanding. *Innovations in Education and Teaching International*, 55(2), 228-238. <https://doi.org/10.1080/14703297.2017.1333917>
- Morar, T., & Marais, B. (2022). Exploring burnout among psychiatric trainees at a South African university. *South African Journal of Psychiatry*, 28(1), 1-10.
- Nguyen, T., Mia, L., Winata, L., & Chong, V. (2016). Effect of transformational-leadership style and management control system on managerial performance. *Journal of Business Research*, 70. <https://doi.org/10.1016/j.jbusres.2016.08.018> .
- Michalek, F., & Long, M. (2013). Cohabitation with millennials in the workplace: a contemporary challenge of leadership [Unpublished Master’s Thesis]. *Linnaeus School of Business and Economics*. <http://www.diva-portal.org/smash/get/diva2:631456/FULLTEXT01.pdf>
- Neuman, W.L. (2014). *Social research methods: Qualitative and quantitative methods* (7th ed). Pearson Education Limited.
- Northouse, P.G. (2021). *Leadership: Theory and practice*. Sage publication.
- Nolan, L.S. (2015). The roar of millennials: Retaining top talent in the workplace. *Journal of Leadership, Accountability & Ethics*, 12(5), 9-75. http://na-businesspress.homestead.com/JLAE/NolanLS_Web12_5_.pdf
- Parry, E., & Urwin, P. (2017). The evidence bases for generational differences: Where do we go from here? *Work, Aging and Retirement*, 3(2), 140-148. <https://doi.org/10.1093/workar/waw037>
- Percy, W. H., Kostere, K., & Kostere, S. (2015). Generic Qualitative Research in Psychology. *The Qualitative Report* 20(2), 76-85.
- Prinsloo, I. (2018, December 6-7). *Afrofuturism: A perspective on retail design in South Africa*. [Paper presentation]. ICDMB Conference Hasselt BE
- Puybaraud, M. (2010). *Generation Y and the Workplace Annual Report 2010*. London: Johnson Controls Global Workplace Solutions.
- Raines, C. (2002). *Managing millennials: From connecting generations*. The Sourcebook
- Randal, M. (2016). Understanding the total value chain of a healthcare outsourcing services in Bangladesh [An Internship Report for BA]. BRAC Business School: BRAC University.
- Reay, T., Zafar, A., Monteiro, P. & Glaser, V. (2019). Presenting Findings from Qualitative Research: One Size Does Not Fit All! In Zilber, T.B., Amis, J.M. and Mair, J. (Eds.) *The Production of Managerial Knowledge and Organizational Theory: New Approaches to Writing, Producing and Consuming Theory* (pp 201-216). <https://doi.org/10.1108/S0733-558X20190000059011>
- Sala, M.M. (2010). Generational differences impact on leadership style and organizational success. *Journal of Diversity Management*, 5(2), 1-6. <https://doi.org/10.19030/jdm.v5i2.805>
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for Business Students* 4th edition Pearson Education Limited, England.

- Sessa, V.I., Kabacoff, R.I., Deal, J., & Brown, H. (2007). Generational differences in leader values and leadership behaviors. *The Psychologist-Manager Journal*, 10(1), 47-74
- Schiuma, G. (2017). Arts catalyst of creative organisations for the fourth industrial revolution. *Journal Open Innovation: Technology, Marketing, and Complexity*, 3(20), 1-12
<https://doi.org/10.1186/s40852-017-0072-1>
- Schreier, M. (2012). *Qualitative content analysis in practice*. Sage
- Schwab, K. (2017). *The fourth industrial revolution*. Crown Business.
- Srivastava, M., & Banerjee, P. (2016). Understanding Gen Y. *Journal of Management Research* (09725814), 16(3).
- Stein, J., (2013, May 9). Millennials: The me me me generation. *Time Magazine*, 20, pp.1-8.
- Stewart, J., & Warn, J. (2017). Between two worlds: Indigenous leaders exercising influence and working across boundaries. *Australian Journal of Public Administration*, 76(1), 3-17.
<https://doi.org/10.1111/1467-8500.12218>
- Svensson, G., & Wood, G. (2016). Sustainable components of leadership effectiveness in organizational performance. *Journal of Management Development*, 25, (6), 522-534.
<https://doi.org/10.1108/02621710610670100>
- Swain, R. (2019). Leadership lessons through the lens of historical military leaders: A pedagogical approach to teaching leadership theories and concepts in a Master of Public Administration Course. *Teaching Public Administration*, 37(4), 234-252.
<https://doi.org/10.1177/0144739419832046>
- Thompson, C., & Gregory, J.B. (2012). Managing millennials: A framework for improving attraction, motivation, and retention. *The Psychologist-Manager Journal*, 15(4), 237-246.
<https://doi.org/10.1080/10887156.2012.730444>
- Toendepi, J. (2013). *A systemic perspective to wealth creation through learning and adaptation: An analysis of South Africa's competitiveness*. Germany, Lambert Publishing.
- Vasconcelos, J. B., Kimble, C., & Rocha, Á. (2016). A special issue on knowledge and competence management: Developing Enterprise solutions. *Information Systems Frontiers*, 18(6), 1035-1039. <https://doi.org/10.1007/s10796-016-9717-z>
- Viljoen, R. (2015). *Organisational change and development: An African perspective*. South Africa, Knowledge Resources.
- Wong, E.O.W. (2018). Analysing the contribution of continuing education and leadership empowerment to sustainable development: experiences from a Hong Kong tertiary institution. *International Journal of Sustainability in Higher Education*, 4(4), 364-374.
- Zabel, K. L., Biermeier-Hanson, B. B., Baltes, B. B., Early, B. J., & Shepard, A., (2017). Generational differences in work ethic: Fact or fiction? *Journal of Business and Psychology*, 32(3), 301-315. <https://doi.org/10.1007/s10869-016-9466-5>
- Zemke, S.R., Raines, C., & Filipkczak, B. (2013). *Generations at work: Managing the clash of boomers, Gen Xers, and Gen Yers in the workplace*. Amacom.

SSIRC 2023-068

IMPLICATIONS OF HIGHER EDUCATION REFORMS ON AFRICA'S DEVELOPMENT. THE ZIMBABWEAN PERSPECTIVES

A. Gwiza

Marondera University of Agricultural Sciences and Technology, Zimbabwe

V.D.B. Jarbandhan

University of Johannesburg, South Africa

M. Tambaoga

Marondera University of Agricultural Sciences and Technology, Zimbabwe

L. Chitongo

Marondera University of Agricultural Sciences and Technology, Zimbabwe

ABSTRACT

Higher education has become a crucial vehicle of development in post-colonial Africa. Like any other African state, Zimbabwe has made considerable strides to reform its curriculum in the higher education sector, underlining heritage to decolonialise an inherited and culturally hegemonic, colonially skewed curriculum which has dismally failed to improve the lives of Zimbabwean societies since independence. However, there are critical considerations for this initiative to succeed. This paper evaluates the impact of the education 5.0 philosophy adopted in the Higher Education Institutions (HEIs) as part of concerted efforts to transform Zimbabwean economy and the general society. This paper utilised the qualitative research approach. In-depth Interviews were used to collect data from target respondents identified from selected state Universities, the parent ministry, and students. Non-Participant Observations and document search were utilised to complement the primary data. The data was then collated into a narrative. Thematic and content analysis approaches were employed to present and analyse data. The study revealed that education 5.0 is a welcome philosophy which supersedes the inherited colonially biased higher education system in Zimbabwe. It requires HEIs to utilise heritage and produce goods and services which are key in driving the innovation and industrialisation agenda. However, the doctrine's effectiveness is undermined by inhibitive factors such as lack of adequate infrastructure, financial gaps and negative perceptions amongst academics and the community. The paper concludes that HEIs must collaborate with relevant stakeholders for effective implementation of education 5.0. Reorientation of educators should be equally considered for the doctrine's seamless implementation. Adequate financial and technical support towards the physical infrastructures like industrial parks and innovation hubs within HEIs is also fundamental.

KEYWORDS: Culture, Development, Higher and Tertiary Education, Education 3.0, Education 5.0, Heritage

1. INTRODUCTION

Due to globalisation, democratisation, and liberalisation (Brennan, King, and Lebeau 2004: 19), higher education institutions (HEIs) are under increasing pressure to demonstrate their relevance and significance to society (Addie, 2018; Hannon, 2013; Reichert, 2019). The socio-cultural and economic transformative potential of universities is vital for national and regional development. Higher education is significantly and directly expected to contribute to innovation, economic growth and development, democratisation, social cohesion, and sustainability. Higher Education is now recognised by the International Development Cooperation Agencies as playing a very important role in political, social, and economic development (Kromydas, 2017). Higher education in Africa has been moving from a small elite system to a mass system in the last two decades (Dzvimbo, 202). Several African nations embarked on significant reforms of their higher educational systems to align them with new national development imperatives. The reforms were imperative because African countries followed the education systems and practices of the former colonial powers. In most instances, the language of instruction even at primary level was that of the former colonial power (Gakusi, 2008). This resulted in an internally and externally inefficient and costly education system, particularly at the tertiary level, producing graduates without appropriate educational content or quality (Mihyo, 2005). This also resulted in a mismatch between the world of work and the world of education. The imbalance between supply of and demand for skilled manpower is illustrated by the case of Mali, where only 30 percent of the 1986 university graduates got jobs, and in Guinea, where the unemployment of graduates resulted in 40 percent reduction of university enrolments (Diambomba cited in Gakusi, 2008). At political independence of Zimbabwe in 1980, there was an education expansion at all levels as noted by Kariwo, (2012) who recorded an increase of primary school enrolment from 20% in 1980 to 86% in 1981. This increase at lower levels caused demand for higher education in the country and this necessitated the establishment of more universities.

The problems today with the higher and tertiary education system are endless. Country success always depends upon resources. This calls for African countries to reform their higher education systems in order to attain national development. Gakusi, 2008 noted that during the 1960s and 1970s in Africa there was increased expenditures on education, with strong support from the donor community which also considered education as a top priority. The result was a great expansion of teaching, learning and research activities that culminated, in exponential growth in enrolment rates as compared to any other region of the world.

Whilst there is existential progress in this regard, the higher education provision in Africa still falls far short of demand and lacks utility and alignment with average international standards (Phuti, 2022). The continent fails to meet minimum requirements of emerging markets with respect to educational outcomes and in realising Sustainable Development Goals (SDGs) goal number (4) (quality education) (Future Africa Forum, 2020). According to Phuti (2022), Africa still harbours populations with minimum capabilities to free themselves from age-old vices rooted in poverty, ignorance, and poor health delivery. Higher education has a role to foster human socio-economic growth. The socio-economic fissure between Africa and the developed world continues to raise fundamental questions on the role of higher education in Africa's development. While aiming for

relevant knowledge production for economic growth and social development and uplifting the socio-economic fortunes of their countries' citizens, African universities, heavily constrained by relics of their colonial past, still largely execute alien academic agendas and roles not benefiting the societies they purport to serve, even despite Africanisation of curricula (Phuti, 2022). Higher Education systems and procedures of most African nations have emerged directly from the establishments of their colonial masters. The paper seeks to explore the implication of curriculum reforms in the higher education sector on Africa's development. Reference is paid to the education 5.0 philosophy adopted in the Higher Education Institutions (HEIs) and explore its contribution towards Zimbabwe's development thrust.

2 LITERATURE REVIEW

This section reveals relevant literature that are pertinent to the current study. The literature was revealed and present in the following sub-topics.

2.1 Development: A conceptual and contextual analysis

In this section, we attempt to define and briefly discuss "development" as the mother concept though which all various discussions and interrogation in this study are anchored on. Critical assessment of the Education 5.0 philosophy in the Zimbabwean Higher education sector gives a picture on how the government is committed towards achieving development as contained in the United Nations Sustainable Development Goals (SDGs) and Africa's Agenda 2063. Therefore, prior appreciation of this concept is helpful to put this study into proper perspective.

Over the years, and particularly, since the early 1960s when the Africa continent was busy transforming its political landscape, the idea of 'development' gained more popularity in the entire region (Ndhlovu, 2020:79). The concept's popularity evolved from the great and gluttonous 1884 Berlin plunder (Ndhlovu, 2020:79). It is not a surprise that the dominance of the hitherto colonial regime on Africa's political architecture became the rallying point for many researchers including Samir Amin, to understand how African societies could adopt inclusive development initiatives as a way of decolonising the entire continent; and deepening a people-oriented development approach (see Amin 1972, 1973, 1976). Since this period, systematic studies on Africa's development have grown exponentially; with some researchers arguing that in the post-colonial reality, 'development' has been subordinated to personal gain by neo-colonial leaders (Cheru, 2009; Rodney 1972). Other scholars suggest that the adoption of weak development theories has undermined development efforts in the region (Ayittey cited in Ndhlovu 2020:79). This section briefly discusses diverse definitional interpretations of development in the African continent to relate to the higher education reform agenda of the contemporary governance.

The concept of development and its widespread adoption in Africa is evidently as old as civilisation. Development, on its own, plays a crucial role seeking to explain the most different ways related to people's well-being. The concept's widespread usage particularly in Africa helps us to relate to a doctrine which is referred to interrogate the magnitude of social, economic, environmental, and political progression of the African region. Discussions on the real meaning of development have characterised many scholarly forums. Nevertheless, governance literature has

established the meaning to the orientation of the developed world. As argued by Tandon (2015: 145), the biggest problem associated with most theoreticians of both the global south and the segregated peoples and sub-nationalists of the north is to present a... definition of ‘development’ outside the cages of the Euro-West. Even the current appreciation of the development concept falls under the westernisation of the world’ (Latouche 1993:460) or simply “...an empty signifier [emanating from the West] that can be filled with almost any content” (Ziai cited in Ndhlovu 2020:84). Gumede (2019: 51)’s view on development is “...improvements in wellbeing, involving socio-economic progress.” Put differently, Brobbey cited in Ndhlovu 2010:84 views development as simply, “the capacity of a state with the aim of achieving higher outcome of production for the satisfaction of citizens and empowering them to make demands.” (Ndhlovu, 2020:84).

Final analysis of the above definitions brings to limelight that development is, inherently, a political process simply because it raises the most critical questions of the source of power to determine who should do what when and how, and with what consequences to any given polity. In Africa, the idea of development would entail the source of political power to effectively distribute scarce resources and values within diverse public preferences. Therefore, any higher education reform efforts should entail African leaders establishing and implementing their development values and principles to enable the region to gain control of its economic policies. Unfortunately, at this stage, Africa’s development is largely being controlled externally, a situation that must be addressed as soon as possible.

2.2 Higher education and development nexus: Unfolding scenarios

For the past decades, ‘globalisation’ and the advent of the ‘knowledge economy’ have witnessed emerging new economic, social, political, and cultural order that challenge contemporary governments and higher education sector to provide appropriate solutions (Centre for Higher Education Transformation [CHET], 2011). There is, indeed, a growing realisation that in the wake of these new threats, particular knowledge acquisition, critical skills, and competencies – normally referred to as ‘human capital’ – becomes instrumental to drive the developmental efforts, just like what research, innovation as well as technological development is expected to achieve (Castells, 2002). Knowledge creation, growth, transfer, and use are key drivers in socio-economic development, and are progressively at the centre of national development interventions for realising competitive benefits in the worldwide knowledge economy (Santiago et al. 2008; CHET, 2011).

Globally, higher education institutions are widely perceived as playing a fundamental role in providing the knowledge necessities for development. For instance, previous studies have established a strong positive relationship between higher education involvement rates and development levels. Even though the involvement rate of the higher education in several high-income countries are encouragingly well above 50%, the sub-Saharan Africa perspective is quite discouraging, with a record of less than 5% (CHET, 2011). Additionally, there is cumulative suggestion that growing levels of education in general, and of higher education in particular, have positive contribution towards the design as well as productive utilisation of innovative

technologies. They also serve as the precursor for any country's innovative ability, and influence more than any single social establishment towards the development of civil society (Carnoy et al. 1993; Serageldin, 2000) (CHET, 2011).

The above suggestions have compelled many countries to craft knowledge and innovation policy frameworks, and higher education, to lead their respective development interventions. The best globally known model in a developed nation is that of Finland which, after experiencing the deep economic slump of the early 1990s, identified knowledge, information technology and education as the engine of the new (economic) development trajectory (Hölttä & Malkki, 2000). Other countries like South Korea, Singapore, Denmark, Australia, and New Zealand followed suit successfully (CHET, 2011).

The retrogressive experiences of the African continent have led to deep appreciation of the contribution of higher education in national development (CHET, 2011). Soon after independence, the HTEIs in Africa were anticipated to provide the critical human capital requirements of the countries where they existed. There was, indeed, a particular attention to build a strong human capital base for the civil service as well as responding to the skill needs of diverse private and Non-Governmental Organisations (NGOs) professions. All these commitments aimed at addressing the critical staffing gap in these respective disciplines due to the serious levels of underdevelopment amongst universities under colonial bondage and the exodus of colonial administrators and professionals soon after independence.

The year 1960 received a global claim as the 'Year of Africa' which entailed African countries' reorientation of HTEIs in the development path of the continent. The re-configuration was exemplified in September 1962, when UNESCO held a conference on the Development of Higher Education in Africa. In the ensuing decade, the Association of African Universities held a workshop in Accra, Ghana in July 1972 which focused on 'the role of the university in development' (Yesufu, 1973). The centrality of the university education in the independent Africa was undermined by the popularised 'Accra declaration' that all universities must be 'development universities' (ibid.) (CHET, 2011). There was a consensus that universities were not supposed to remain in the hands of academics only; governments were equally responsible to direct universities in the development direction (CHET, 2011).

Even though several African academics eagerly buttressed the contribution of the 'development university', regarding it a springboard in their confrontations with the expatriate professoriate that had full control of the institutions by then, it did not go well with expatriates, including some 'worldly' African academics (CHET, 2011). The expatriate professoriate favored the traditional model of the university which was being governed by academics themselves. This model was more pronounced in the UK and the US at that period. It also dominated during the first two decades of independence where universities and 'liberation' governments strongly agreed on the critical role of elite universities which was essentially to produce human capital for the new state (CHET, 2011).

Whilst the ‘development university’ movement was popularised, most African nations did not show any significant commitment to promote the development function of universities. Part of the reason was that a number of these countries had not come up with a comprehensible development model (CHET, 2011). Further, as argued by Moja et al. (1996), many had become increasingly enmeshed in internal power politics, and the external politics of the Cold War and funding agencies such as the World Bank. Instead, ‘not leaving the universities alone’ became interference by government, rather than steering. In turn, universities turned into the sources of contestation – partly with regards to the development model of the newly democratic government, and partly on the failure to deliver set targets, which comprised lack of funding support for these institutions. Consequently, several African governments, other relevant stakeholders as well as academics became uncertain about the function of the university in national development. This resulted in higher education being labelled as a ‘luxury ancillary’ – which was good enough to establish but not critical, largely because there was really nothing to show which universities were contributing towards national development. (CHET, 2011).

Unfolding scenarios above refocused development commitments in Africa to concentrate on primary education. It was during this period that the World Bank guided by the infamous ‘rate of return to investments in education’ study (Psacharopoulos et al. 1986), concluded that development efforts in Africa was to be redirected to underline primary education. This is supported by the sudden decline in per capita spending on higher education in Africa: ‘Public expenditure per tertiary student has fallen from USD 6 800 in 1980, to USD 1 200 in 2002, and recently averaged just USD 981 in 33 low-income SSA [sub-Saharan Africa] countries’ (World Bank 2009: xxvii). This is a staggering decrease of 82% (CHET, 2011).

Different from the Chinese and Indian model of underscoring higher education and primary and secondary education concurrently in their development approaches, the World Bank approach in Africa had the agenda of detaching universities from development. Moreover, the World Bank strategy entailed the development policies which brought negative implications on Africa and its sustainable development prospects (CHET, 2011). Abandonment of higher education resulted in the disestablishment of research centres, medical schools, agricultural centres, telecommunication and technological development, business training centres, vocational schools, and other areas in the higher education sector, which are critical to the development of African societies and their economies (CHET, 2011).

The decade beginning in 1990s up to early 2000s witnessed renewed interest in revamping the African university and relating higher education to development (Sawyerr, 2004). The World Bank itself, influenced by Castells’ (1991) path-breaking paper, *The University System: Engine of development in the new world economy*, began to support the contribution of higher education in the emerging knowledge economy, and for development in the developing world (World Bank, 2009). This has successively been fortified by World Bank-led research like Bloom et al. (2006) which evidently dramatised a link between higher education investment and gross domestic product in the Africa context. Further empirical evidence has been created by successive research by the African Development Bank (World Bank (2009). Kofi Annan, the then secretary general of

the United Nations, strongly supported the criticality of universities for development in Africa (quoted in Bloom et al. 2006: 2):

The university must become a primary tool for Africa's development in the new century. Universities can help develop African expertise; they can enhance the analysis of African problems; strengthen domestic institutions; serve as a model environment for the practice of good governance, conflict resolution and respect for human rights, and enable African academics to play an active part in the global community of scholars.

This new thrust of strengthening higher education was taken further by a group of African ministers of education at a preparatory meeting for the UNESCO World Conference on Higher Education in 2009. As reported by MacGregor (2009), the ministers called for improved financing of universities and a support fund to strengthen training and research in key areas (CHET, 2011). Even though the above sentiments aptly mirror solidarity for the critical function of higher education in the development process, there was a misconception with regards to the actual function to be performed by these institutions. Their 'development tool' role appeared to have two diverse views that were unclear – a direct, instrumentalist or 'service' role, and an 'engine of development' role which is underlined the imperative to reinforce knowledge production and the contribution of universities in innovation processes (CHET, 2011).

The instrumentalist function is perhaps the most credited role of the two notions in Africa's development strategies. For example, the calls by, particularly, foreign donors and multilateral institutions including but not limited to the United Nations and UNESCO for university renaissance are, on several occasions, buttressed by the basic assumption that universities serve as sources of knowledge that must be fully utilised towards addressing critical development challenges, like poverty alleviation, among others (CHET, 2011).

2.3 Theoretical Framework

This section is a brief discussion of the major theory guiding this study.

2.3.1 Human Capital Theory

Becker (1965:29) notes that Human Capital Theory (HCT) has been a dominant paradigm informing the education and training discourse. More recent work focusing on endogenous growth, endogenous development, and the development of capabilities also provides important insights into how graduates of tertiary education contribute to employment creation or rather to an increase in employment opportunities. The second pathway to impact considers how tertiary education can increase capabilities within a given polity. This pathway is largely informed by the capability (or 'capabilities') approach, emerging from the work of Keller (2006:15). This scholar pinpoints that gauges of individual well-being and national prosperity based on income are inadequate and that the focus of evaluations should be on people's freedoms to do or be what they have reason to value. Income is seen as being instrumental in expanding freedoms, but not a sufficient condition. Walker (2006:89) argues that the capabilities approach suggests an alternative pathway to impact, with

tertiary education providing a broad learning experience for a student that equips them to pursue diverse goals, including, but not restricted to, employment, and strengthens citizenship and ethical commitments to others in society.

These can be tapped into the higher education system to produce graduates who can deliver public goods and services to the nation. This theory enhances the body of knowledge by remodelling the connection of strategic issues surrounding university performance, and how these linkages can be utilised as a timely opportunity for transforming Zimbabwe's economy in line with its 2030 agenda. The study interrogates the inter-connectedness of organisational strategy, structure, transformational leadership, talent management, technology integration and university performance that should define the contemporary university setups to mould better graduates who can meaningfully contribute towards national economic growth and sustainability.

3 METHODOLOGIES

The study adopts a qualitative approach where data was collected from selected state universities, ministry of higher and tertiary education officials and students.

3.1 Research design

This study was undertaken using the qualitative research design. Qualitative methods provide comprehensive consideration of cases and allow a better understanding of context. Qualitative data requires data that are rich and universal that helps the emergence of findings and themes when it is thoroughly analysed (Aspers & Corte, 2019). A case study was used as the study's qualitative research design. As defined by Hammond and Wellington (2014:4), a case study is an in-depth investigation of a research phenomenon to sufficiently appreciate its nature, depth, breath within a real-life context. Creswell (2009:204) concurs that a case study seeks to appreciate phenomenon within a single or small number of naturally occurring settings. Therefore, a case study is essential to provide a grand picture of a phenomenon through a detailed empirical illustration; and to generate new knowledge (Simon, 2011:20). Thus, the case study allowed researchers to explore the nexus between Education 5.0 (as a curriculum reform) and national development in Zimbabwe. Practical experiences on Education 5.0 on the selected state Universities were the precursor for this study to suggest possible options for the new model's implementation within HEIs in Zimbabwe.

3.2 Sampling method

Due to time and resource limitations, it was difficult to undertake this study using the entire population. As such, researchers utilised the sampling approach to identify research units who would represent the entire population. Burns and Grove (2003:31) define sampling as a process of selecting a group of people, events, or behaviours on which to conduct a study. Furthermore, Polit, Bek and Hunger (2001:234) note that in sampling, a portion that represents the whole population is selected. The study used the Ministry of Higher and Tertiary Education Innovation Science and Technology Development (MHTEISTD) as the study population that was purposively selected to hand-pick six state universities from the 13 accredited public Universities in Zimbabwe.

Three public universities namely University of Zimbabwe (UZ), Great Zimbabwe University (GZU), Chinhoyi University of Technology (CUT) were selected to represent experiences of well-established institutions and the other three universities notably Manicaland State University of Applied Sciences (MSUAS), Marondera University of Agricultural Sciences and Technology (MUASt) were selected to represent young government universities. As it is a social sector ministry which deals with education issues, it was necessary to have a practical appreciation of how the new model is being utilised and linked to development in the Zimbabwean context. Convenient sampling was further utilised to select participants who were readily available and were willing to participate during the time of the research. A sample of 20 respondents was purposively selected. Parahoo (1997:232) describes purposive sampling as “a method of sampling where the researcher deliberately chooses who to include in the study based on their ability to provide necessary data”.

3.1 Data Collection

The researcher utilised in-depth interviews and document search as qualitative data collections methods which served to complement each other. In-depth interviews were conducted to collect data from key informants in the MHTEISTD and selected academics and policy analysts specialising in higher education sector. “In-depth interviews are important to consolidate various reactions, experiences, and challenges from various respondents. Pereira, Pedrosa and Motovelli (2013:1) define “an in-depth interview as an open-ended, discovery-oriented method that is well suited for describing both programme processes and outcomes from the perspective of the target audience or key stakeholder”. The purpose of interviews is to provide an in-depth explanation of the participant's viewpoints, feelings, and perspectives (Wallace Foundation, ND: Internet Source).

Document sources were also used to complement data collected from key informant interviews. The importance of document use is to corroborate and argue evidence from various sources. The use of documentation is to construct interviews, clarify facts, and/or make inferences from specific arguments or facts (Yin, 1994:81). Various sources of documentation were used to examine the contribution of education 5.0 to socio-economic transformation in Zimbabwe. Document sources from which secondary data was obtained included. Document search helped to verify the claims that education 5.0 as higher education reform efforts serve as an important catalyst for development in the country.

3.2 Data Analysis

For the purposes of this study, the researcher employed both document analysis and thematic analysis approaches to analyse primary and secondary data. These qualitative data analysis approaches were respectively used to analyse data collected through a document search and structured interviews. Document content analysis refers to the use of replicable and valid methods for making specific inferences from texts to other states or properties of its sources. Auriacombe (2011:134) further argues that document “content analysis is also a technique for making references by systematically and objectively identifying and describing specified characteristics” in the texts. In this regard, the researcher used this technique to extract important information from

the statutory, regulatory and policy frameworks which are used in the implementation and evaluation of education 5.0.

A thematic analysis was applied in terms of the analysis of data that was collected by way of the unstructured in-depth interviews. As defined by Boyatzis (1998:7), this refers to “a process of encoding qualitative information where the researcher develops codes or words or phrases that serve as labels for the selection of data”. Braun and Clark (2006:85) add that thematic analysis enables the researcher to identify, analyse and report patterns (themes) in the data regarding the subject under study. It also enables the researcher to minimally organise and describe the data set in (rich) detail.

4. FINDINGS AND DISCUSSION

This section presents and analyses the major findings of this study. Ever since the year 2000, the higher education sector in Zimbabwe faces daunting challenges that have compromised the calibre of its produce because of the cumulative impact of political and economic crisis. The social and economic dynamics in Zimbabwe underwent various phases from the period 2000 to date. There has been severe social and economic uncertainty since the government undertook the Fast Track Land Reform Programme (FTLRP) in the year 2000 (Chitongo, Chikunya and Marango, 2020).

4.1 Contextualising higher education reforms in Zimbabwe’s development agenda

Reference was paid to the Education 5.0 model. Respondents’ knowledge base gave researchers a clear picture about the knowledge and receptiveness of the education 5.0 doctrine in the history of the Zimbabwean higher education landscape. Fifteen respondents shared a common understanding that the Education 5.0 doctrine is, indeed, a new trajectory compelling all HTEIs to revamp their curricula so that their mandate focuses on programmes and activities that produce goods and services to the nation. Implied here is that all degree, certificate, and diploma programmes on offer should have Minimum Bodies of Knowledge and skills (MBKs) that provides graduates who are capable of producing goods and services to the industry and the entire nation. At the core of this new philosophy is the need to take a lead in the achievement of Zimbabwe’s Vision 2030 Agenda of realising an upper middle-income status by 2030.

One of the key informants echoed, “*Education 5.0 is a catalyst for achieving Vision 2030 as it helps to drive the industrialisation agenda.*” Education 5.0 is an educational re-configuration with a key thrust to complement the former three-legged structure Education 3.0. It is now anchored on five (5) cornerstones notably teaching, research, community service, innovation and industrialisation. The above thrusts are critical and point to a hybridised heritage-based education system which is premised on two key pillars: Higher and Tertiary Education (HTE) 5.0; and Science and Technology Development. A respondent in the Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development (MHTEISTD) expressed his dissatisfaction with the former model, arguing that; “*Education 3.0 was too academic and theoretical, while Education 5.0 is problem solving. It focuses on production of goods and services.*” Another key respondent at MSU concurred that, previously, the education system in

Zimbabwe was rated as Higher and Tertiary Education 3.0 (HTE 3.0) which focused more on teaching, research, and community service. Thus, the newly adopted model, HTE 5.0 has two extra roles for universities to fulfil (i.e., innovation and industrialisation).

The above responses typify the imperative for Zimbabwe to adopt the Education 5.0 within HTEIs. Most fundamentally, Education 5.0 prepares students for lifelong learning, making sure the educational offer develops the ability and readiness of students to engage in continuous learning throughout their professional lives. There is freedom of curriculum goals and learning outcomes from conventional qualification frameworks to offer relevant personalised and personal learning. The re-alignment of the higher education system is an antidote for challenges faced by government in achieving Sustainable Development Goals (SDGs). Literature aground confirms the above synergy. According to Dill (2005:3), Levy (2006:9) and Alemu (2018:212), higher education has a very strong bearing on national development. SDGs Goal Number 9 advocates for the promotion of inclusive and sustainable innovation and industrialisation which are crucial drivers of economic growth and development. Thus, in this case, tertiary education becomes a conducive environment for employment generation through innovation and industrialisation. The crucial role that Universities play in contributing to the socio-economic prosperity of nations transcends the contribution of their operations to the gross domestic product (GDP) and employment, as significant as these contributions are. Overall, participants concurred that the Education 5.0 model is key so that Zimbabwe can be able to address the complex challenges it faces in the education system, and the nation at large.

4.2 Education 5.0 as a game-changer in HEIs

Empirical evidence points to the fact all State Universities have fully complied with the government's call to adopt education 5.0 doctrine as a new development pathway in Zimbabwe. The sections below present some of the developments made by state Universities in pursuit of the Education 5.0 doctrine.

4.2.1 Strategic plans re-design

The basic response of HEIs to the government's new development pronouncements is through systematic review of their strategic plans. The education 5.0 philosophy has been a compelling case for all HEIs to revamp their respective Strategic Plans with a view to meet the new demands of Zimbabwe's economy. All State Universities redesigned their Strategic Plans; a move that signalled compliance with government's new development thrust. They all redefined their higher education system not only as a response to the Government's directive to reconfigure the education systems capable of procuring deliver goods and services to the nation; but is evidently charting their own new path to reconfigure themselves as pinnacles of Excellence in research, innovation and industrialisation to the nation, region and across the globe. For example, UZ's (2019-2025) Strategic Plan presents its renewed focus to foster a culture of wealth creation among graduates and staff to transform the economy. Equally, Marondera University of Agricultural Sciences and Technology (MUASt)'s 2021-2025 Strategic Plan redefines itself as a leading State University with sustainable solutions to extant agricultural sciences and technology challenges affecting Zimbabwe's efforts in enhancing food security efforts in line with Vision 2030.

The new Strategic Plans designed by State Universities provide a new direction for incubation of competent, innovative, and industry-based graduates who are determined to change the country's economy. They aim at developing and promoting a programmatic approach to research and innovation for creation of knowledge products, goods and services which all contribute towards the aspirations of industry, commerce and society in Zimbabwe and the region. Following the evident declining grant support from government, education 5.0 has brought a new line of thinking towards State Universities to adopt wealth creation culture. This is crucial in addressing the growing unemployment levels in the country and financially sustaining their normal operations. The key message from the parent Ministry has been well received as HEIs like UZ, MSU, CUT, GZU and MUAAT are working on various income generating projects, with some registering their own companies to formalise their businesses.

4.2.2 Curriculum review

The new academic trajectory informed by education 5.0 became a compelling case for HTEIs to vigorously review their curricula so that their research and academic activities remain relevant to the national development imperatives. Pursuant to the above, the Zimbabwe Council for Higher Education (ZIMCHE) is the governing body established in 2006 and developed guidelines and policies, implemented interventions into university education and administration processes (ZIMCHE Annual Report, 2018), accomplishing many functions including institutional and programme registration and accreditation, academic staff grading and promotions, quality assurance standards, credit accumulation and transfer system, national qualifications framework, and development of MBKs (Phuti, 2022:121). As such, ZIMCHE remains instrumental in providing the necessary guidance and sets out quality assurance benchmarks regarding the direction and quality of higher education system in Zimbabwe. The on-going comprehensive review of its curricula in HEIs require final approval and accreditation by ZIMCHE. The key message from the Education 5.0 doctrine is to define all HTEIs as enablers for turning around the economy of Zimbabwe through offering relevant degree programmes in line with the GoZ's heritage-based economic turn-around efforts. For instance, GZU has reconfigured its curriculum, making it mandatory for all its programmes to have at least, a culture-related course to strengthen its unique 'culture' mandate. The same University has gone further to introduce new marketable degree programmes like Bachelor of Science Honours degree in Heritage Studies and Bachelor of Science Honours Degree in African Language and Culture which are crucial in promoting heritage-based development in Zimbabwe and the region. MSU has also shown the same commitment by introducing relatively similar degree programmes like the Bachelor of Science Honours in History and Heritage Studies and the Bachelor of Science Honours in Archaeology, Cultural Heritage, and Museum Studies. All these degree programmes lay the necessary foundation in the process of decolonising the education system for a meaningful development in Africa.

The curriculum review process also necessitated the change in nomenclatures of some disciplines in line with the new demands of the labour market and the industry. At UZ, the change of disciplines of engineering, science and technology and life sciences; and at the same time, re-configuring the existing academic programmes in the arts, humanities and behavioural sciences were all pace-setting initiatives for the rest of other government Universities and Colleagues. As

the premier higher learning institution, UZ undertook a comprehensive review of its curriculum and has now introduced new marketable academic programmes which are in sync with the new demands of the industry. The programmes include but not restricted to the Bachelor of Science Honours degree in Smart Technology Applications and Community Development, Bachelor of Science Honours degree in Innovation and Community Development Bachelor of Science Honours degree in Urbanisation and Social Amenities Development, Bachelor of Science Honours degree in Society and Heritage Studies, and Bachelor of Science Honours degree in Anthropology and Heritage Studies. So far, there is high uptake of these new degree programmes; a scenario that witnesses UZ redefining its hegemony as the best University of choice in the African region. More interestingly, new degrees at postgraduate level are being introduced and most of these programmes are in the spirit of fulfilling the imperatives for the Education 5.0 philosophy which, among others, seeks to address human capital deficits in some critical areas of the economy like sciences, engineering, and agriculture. During the 2021 Graduation Ceremony, the UZ's Vice Chancellor expressed his excitement, echoing that; *“the University's thrust to promote science programmes was beginning to bear fruits as the past years had witnessed a consistent trend of more science postgraduates”*. Approximately 54 percent of the postgraduate students at UZ were, arguably, enrolled in science related academic programmes”. In-depth interviews with a ZIMCHE Official concurred that curriculum review in the HTEIs was mandatory to have academic programmes that focus on practical development. As such, all HTEIs were directed to review their curricula to suit the new normal. The University Chancellor also urged other Universities to take a leaf from UZ's lead in reconfiguring their curricula (The Herald, 5 December 2021).

Officially launching the new academic programmes during the 2022 Graduation Day, the University Chancellor, Cde E.D Mnangagwa underlined the centrality of the new curriculum in transforming Zimbabwe's economy. He remarked; *“The University's curriculum review process is a commendable endeavour as the new degree programmes in the Faculty of Medicine and Health Sciences would underpin the tracing of highly specialised health practitioners, resulting in improve quality and affordability of health care in Zimbabwe”*. He also thanked the UZ leadership for introducing the Graduate Innovator Programme Model which is, promisingly, a flagship programme contributing positively towards the nation's initial generation start-ups. This was considered as a timely opportunity for young generation to be utilised in innovating, inventing, establishing, and creating intellectual property for the betterment of the economy. The University Chancellor went further to predict a decline in demand for foreign health services owing to the resultant availability of a localised, affordable, and improved quality health care in Zimbabwe.

MUAST as a new State University has also taken the advantage of the education 5.0 to design useful curriculum in line with its unique mandate: agricultural sciences and technology. An interview with the Quality Assurance Director revealed that MUAST has gone far to establish new critical academic units such as the Centre for Agricultural Engineering and Institute of Climate Change and Food Security and Faculty of Applied Sciences which are all serve the similar role of driving the University's agricultural sciences and technology mandate. MUAST's flagship programmes include but not limited to Bachelor of Science Honours degree in Crop Production and Technology, Bachelor of Science Honours degree in Agricultural Engineering, Bachelor of

Science Honours degree in Animal Sciences and Technology and the Bachelor of Sciences Honours in Agribusiness and Entrepreneurship. All these degree programmes have significantly transformed the mind-sets of students from job-seeking to job creation.

4.2.3 Establishment of Agro-Industrial Parks in State Universities

The government, though the parent ministry showed its commitment towards empowering HEIs to fully integrate the education 5.0 philosophy. One such commitment was through provision of financial and other critical support for the establishment of Agro-Industrial Parks in State Universities. The agro-industrial park forms part of the government's new strategic plan, which directs State Universities and other higher learning institutions to be champions of innovation and industrialisation for the provision of goods and services to the economy. MUASt, the only fully fledged agricultural university in Zimbabwe, received a total of \$262 million from government for setting up the agro-industrial park which was later commissioned in June 2022. The farm also received two brand new tractors, 1500L fertiliser spreader, 2000L 18m boom sprayer, five heavy duty generators and an 8 row monosem planter, all financed by the government. MUASt's agro-industrial park covers 1020 hectares with 400ha being arable and of that 300ha being utilised for cropping. Already, MUASt is one of the beneficiaries of the Muchekeranwa Dam in Marondera Rural and has started constructing a 2,1km main water supply line from the recently commissioned dam to a reservoir in the park. As such, the industrial park also has the irrigation facilities comprising six centre pivots with a total capacity to irrigate 260 hectares. The mandate of the MUASt agro-Industrial Park is to spearhead agricultural practices that constitute the entire value chain of livestock and crops. Further, the industrial park is utilised as a teaching laboratory for students where they will be exposed to highly mechanised and precision; and this assists in promoting highly competent graduates in crop and livestock production.

UZ's Agro-industrial Park was also established for retooling its farm in Mazowe. The part is now fully functional as a timely avenue for innovative processing of various agricultural systems and processes. It includes diverse innovative agricultural products, and it also seeks to drive all scientific research initiatives in agriculture. The Park is also expected to produce crude oil and refined cooking oil, animal feed, washed potatoes, bread, starch products that will benefit the entire supply chain from the far table. The UZ Agro-Industrial Park Acting General Manager noted that there is a symbiotic relationship between the University farm and the Agro-Industrial Park. The Industrial Park would, among other processes, extract cooking oil from soya beans then merge soya cake with wheat to produce bread. Several farming activities including cattle, piggery and broiler production were good enough to process into finished products. For the 2021 agricultural season alone, the University farm had put 368ha on maize, 240ha on soya beans and 30ha on sugar beans. Further, the farm had also ha of cabbages and 1.6 ha of onion. Processing of these farm produce was enhanced through an array of production and processing technologies and utilisation of the government programme of climate smart agriculture, pfumvudza, for both maize and soya bean crops (Nyandoro, 2021).

The UZ Vice Chancellor indicated the UZ Agro-Industrial park would have seven modules that include the agro-processing plant, the agricultural and mining equipment production plant, the pharmaceutical and drugs production plant, the electronic components manufacturing plant, the refrigeration plants and warehouse that allows for storage of horticulture products, the learning and execution centre that allow interface with industry and commerce, and another one for stationery production (The Herald, 5 December 2020). These modules are visionary imaginations which can guide the University in its endeavour to collaborate with government to produce lasting solutions to the challenges of Zimbabwean economy. The other good news to share is that the University is now drawing ground water from its Agro-industrial Park to the main Campus, which is about 10 km away.

4.2.4 Establishment of the Research, Innovation, and Industrialisation Infrastructure

One of the enablers of successful operationalisation of the Education 5.0 model is availability of appropriate infrastructure and modern equipment. Lest, the whole initiative becomes, regrettably, a futile creation. All Several Universities have already established the Centre for innovation and industrialisation as the strategic units to drive education 5.0's research, innovation, and industrialisation agenda. The government's long-term plans is to see the establishment of innovation hubs at each University and College so that the wealth creation dream of the new model can be realised. For instance, MSU, CUT, and UZ boast of a start-of-the-art innovation hubs that are also taken as a lasting solution to the country's problems; and an effective funding source for universities to sustain their operations in view of the shrinking budgetary support from the Treasury. In particular, the activities at UZ's innovation hub at the main Campus are typically an epitome of a bridge between knowledge and industry. It is the place where prototypes are being developed and, finally, converted into a fabric of business realities. The innovation hub is anchored on promoting innovative activities underpinned by science and technology using the Silicon Valley model of commercialisation of research and ideas (Satumba, 2019). The innovation hub was built based on success stories from the pacesetters like the University of Nairobi and the American University in Cairo, among other South African universities like Stellenbosch University, the University of Cape Town. Related to the above, the UZ Vice Chancellor noted that the instilled culture of local production had witnessed his university filling 81 patents in 2021 alone; and produced 51 start-ups companies that were already registered. A total of 137 patents were filed in 2019. All these commitments signal the University's new attitude and consciousness towards production and monetisation of intellectual property (The Herald, 5 December 2021).

There is remarkable transformation at UZ, A responded from the institution highlighted that: the establishment of the Art, Design and Technology Complex and the Quinary Hospital at UZ is a timely and a necessary step towards creation of an additional teaching space and home for many medical advancement and innovations. These structures point to the University's unequivocal commitment to the government's call for transforming HTEIs into modern institutions with education fundamentals meant for industrialisation and modernisation of the economy. This is an innovative way of wealth creation to address the growing complex challenges bedeviling the country. This innovative measure resonates with the aspirations of Zimbabwe's economic blueprint National Development Strategy 1.

4.3 Challenges related to Education 5.0 in Zimbabwe's development trajectory.

The previous section unpacked a plethora innovative and industrial activities taking place in HETIs. These activities are aimed at actualising the Education 5.0 philosophy thereby strengthening Zimbabwe's development agenda. The activities in state universities are good enough for researchers to take a leaf of the public policy management realities in contemporary politics. Maphosa *et al.* (2008:35) assert that policy implementation is one amongst the fundamental components of the public policy management process. It is often considered as the process which converts the formulated policy into several activities that enables the vision, mission, and public policy objectives of a public institution to be achieved as planned. Even though there were some noticeable progresses in the implementation of Education 5.0 in selected state universities, the same study also revealed some implementation gaps. These gaps pose a threat to effectively roll-out the new education model in Zimbabwe's HTEIs. This has serious ripple effects on Zimbabwe in realising NSD1 and the global UN-SDGs. Below are some of the challenges of the Education 5.0 that should be addressed.

4.3.1 Lack of adequate stakeholder consultation

One of the key challenges raised by respondents was lack of a genuine stakeholder participation. Respondents' strong feeling was that, whilst the new higher education philosophy is a cure to all the current challenges compromising Zimbabwe's economy, it came as a directive with minimum or no room for consultation. Input from the University community was peripheral. Participants have the strong feeling that the strategic plan development and the curriculum review processes were exclusively undertaken using the top-bottom approach. In the public policy formulation process, lack of a due stakeholder consultation provides room for massive resistance from the workforce especially where the new initiative is not known about its implication on them in terms of employee welfare and job security. One key respondent at UZ argued; *"How do you expect me to play a role on an invention which is not part of me?"*. The other respondent concurred; *"At times we are found on the passive side of the policy pronouncement due to ignorance. We will not be aware of what to do next"*. The study gathered that; indeed, the adoption of the Education 5.0 was hurriedly done, leaving no space for adequate buy-ins from employees and other squarely critical stakeholders. The whole process could have been done seamlessly if the roles of every employee were equated in the model's success matrix.

Commenting on the curriculum review process, the study noted that some of the teaching departments and research units were not accorded due opportunity to apply their vast experiences and intellectual prowess in the process of developing their new academic programmes. In support of this, one academic respondent that; *"The fact that majority of us were not even consulted for producing programmes that reflects our discipline, the education 5.0 philosophy remains exotic to us"*. The above sentiments give the impression that lack of participation at policy formulation stage is potentially a serious barrier for total commitment from staff members on the organisation's strategic vision and mission. Some respondents went further to suggest that what largely drove the policy drafting process was chiefly the desire to meet set deadlines for completion of the new strategic plan. It remains prudent that all level employees' participation be considered positively

in the policy formulation process so that they are driven by the sense of belonging and ownership in any of the organisation's initiatives.

4.3.2 Employee demotivation to embark on transformative social policies.

It is unequivocal that Education 5.0 is a new philosophy that provides new pathways for Universities and Colleges to produce graduates who are capable of producing goods and services to the nation. As such, it is highly believed that the new model can, if properly utilised, improve the country's economy through production of quality goods and services that are critically needed by the industry. Equivalently, the success of this new model depends largely on the availability of a motivated workforce which is committed towards adoption of this new model. The study noted this as one of the major sources of resistance from staff members in the new philosophy implementation. Poor working conditions in State Universities remain a major concern for employees to remain productive at the workplace.

In particular, the meagre salaries they get do not commensurate with their contribution towards the organisation's overall goal achievement. An average University employee is receiving lower salaries which is far below the Poverty Datum Line (PDL). This comes as a regret most employees are now using the University facilities (including Offices, computers, and internet services to pursue individual business for survival. Some employees utilise IT infrastructure and internet facilities to undertake their own funded research. Some use internets to look for better rewarding job opportunities. This is an intolerable sad scenario as the University human resources and infrastructure are being utilised for personal gains.

4.3.3 Lack of adequate funding to support advanced research.

One of the enablers of a successful implementation of the Education 5.0 is availability of funding. Funding is critical to support all the teaching and research activities which feed into the innovation and industrialisation mainstream of the University. At the pinnacle of the new model is the culture of generating money to sustain the University operations other critical commitments. The parent Ministry is commended for providing funds for the acquisition of the necessary equipment for both teaching and research, including putting in place the necessary physical infrastructure for the new model. However, funding remains a huge gap to fully utilise this new model in the spirit of producing goods and services to the industry. The University cannot wholly rely on funding from government to sustain innovation and industrial activities because there are other HTEIs to be looked after.

Most academics who were interviewed expressed their commitment to fully participate in this initiative especially teaching and research; but they cited funding as their major deterrent factor. The key message is the observation that vibrant research is compromised then the University's innovation and industrialisation drive die a natural death. Funding is necessary to support lecturers in undertaking research. In this technological era, cutting edge research is a product of a well-supported ICT infrastructure, internet facilities among other critical requirements. These critical facilities are a missing link for state universities to fully integrate the Education 5.0 model. One

Academic staff echoed; *“With the current ICT situation characterised by inadequate computers, and obsolete research equipment, weak internet facilities, the production of ground-breaking research is an uphill task. The University still have a lot to do in filling this lacuna”*.

4.4 Options for effective Education 5.0 implementation in HTEIs

Implementation hurdles of the education 5.0 doctrine in state universities, some of which are discussed above, are undoubtedly a compelling case for the institution to devise better strategies that will enable the new model to bear anticipated fruits. As learnt before, the new academic trajectory defines universities and other institutions of higher learning as the necessary catalyst for addressing diverse social, economic, and technological challenges bedeviling the entire nation. Obviously, there is need for empirically-sound recommendations for improving education 5.0 implementation in HTEIs. Some of these options are briefly discussed below.

4.4.1 Improved stakeholder consultation in policy formulation

There is need for stakeholder involvement especially during the implementation strategy development. The Education 5.0 is a new model which should be conceptualised fully by those who will need to implement it so that they are in good picture. Unfortunately, scenarios presented above indicates that employee participation on curriculum development was not taken seriously. Very few participated in this squarely critical exercise. It remains the argument of this paper that the management of state universities should ensure that there is adequate participation of all the stakeholders including the lecturers. Wide stakeholder engagement is the seal of good governance, and all administrative decisions must be well informed. It is highly recommended that Departments or Academic Units should take a lead in the design and choice of academic programmes that resonate with the new academic trajectory. As Schaap (2006:13) notes, good policy implementation inertly begins with collaborative policy input: the soup is only as good as the ingredients.

4.4.2 Widening the University’s funding base.

The introduction of the education 5.0 in the HTEIs was done in view of the declining budgetary support from central government. In this case, Universities and Colleagues are viewed as the avenues for revenue generation through engagement in various innovative and industrial processes. There is urgent need for each state University to widen and deepen its revenue streams to boost productivity at the Innovation hub, research centres and the Agro-industrial Park. The University should provide more resources so that research and innovation can be done on a wider scale. Most importantly, state universities may also consider broadening its business partnership engagements for potential funding. Initiation and expansion of public private partnerships may not only guarantee alternative funding option but can also assist in aligning the academic programmes to needs of the industry and society.

4.4.3 Improving employee motivation.

It remains imperative for the state universities’ management to identify the major causes of employee resistance in the education 5.0 implementation drive. The basic reason is to come up

with sound implementation strategies which take on board critical inputs from all staff and students of HEIs in Zimbabwe. One of the important measures is sensitisation of the workforce about the new model. There is need for management to reconfigure the working culture that considers every employee as an asset towards achievement of the education 5.0 model. The strategies include, but not limited to capacity building of the lecturers and other stakeholders, and rewarding those employees who comply. Especially on research, it is advisable to have a profit-sharing policy that motivate academic staff towards research which in turn increases research output for the University and the nation at large. In this new model, active workforce participation in research and innovation is unquestionable.

4.3.4 Improvement of infrastructure and equipment

There is need to invest in modern infrastructure and equipment that enables effective teaching, research, innovation and industrialisation processes and systems in line with education 5.0. More funding should be availed to support these critical activities and generate money for the University. The current COVID-19 era set a new order that requires teaching and research that is supported by vibrant internet services and modern infrastructure like teaching rooms, laboratories, among other research equipment.

5 CONCLUSIONS

This study concluded that education 5.0 is a noble transformative social policy which, if fully utilised, can be instrumental for socio-economic development in Zimbabwe. The new model is underpinned by teaching, research, community service, innovation and industrialisation as core thrusts driving Zimbabwe's higher and tertiary education system. It serves as central linchpin for universities to effectively contribute towards Zimbabwe's economic growth and sustainability. The adoption of this philosophy in 2020 in Zimbabwe's higher education sector pointed to a radical departure from its traditional and narrow approach to a wider framework in higher education provision. The new higher education order compels the HEIs to focus on activities which ultimately produce innovative and industrial graduates who can create employment to the nation. The various innovative and industrial activities currently being pursued by HEIs remain crucial in addressing the long standing complex social-economic challenges bedevilling the country. Relating to Mkandawire's works, this study gathered one crucial point that education 5.0, a transformative social policy – is fundamental for achievement of development in Zimbabwe. In fact, democratic developmental states can never be achieved outside transformative social policies whose core function is to improve and sustain the lives of people, especially the marginalised societies. Perhaps one critical issue that calls further attention by future researchers is that socio-economic transformation is largely theoretical without full support from government and other critical stakeholders to support such initiatives in moral, financial, technical, and material terms. Therefore, it remains the thesis of this paper that effective implementation of the Education 5.0 within Universities and Colleges is a precursor for Zimbabwe's economic transformation; and equally important, the realisation of the global United Nations SDGs. As such, addressing the challenges discussed above remain a top priority for a seamless implementation of the education 5.0 doctrine in HTEIs.

REFERENCES

- Addie, J. (2018). Urban(izing) university strategic planning: An analysis of London and New York City. *Urban Affairs Review*, 55(6), 1612-1645.
- Alemu, S.K. (2018) The Meaning, Idea and History of University/Higher Education in Africa: A Brief Literature Review. *Forum for International Research in Education (FIRE)*, 4(3), 210-227.
- Auriacombe, CJ. 2011. *Methodology Class Lectures for Honours Students*. Unpublished Document. Johannesburg: University of Johannesburg.
- Aspers, P., and Corte, U. (2019). What is qualitative in qualitative research. *Qualitative sociology*, 42(2), 139-160.
- Becker, G.S. (1964) *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. Columbia University Press, New York.
- Brennan, J., King, R., and Lebeau, Y. (2004). The role of universities in the transformation of societies: an international research project synthesis report. Centre for Higher Education Research and Information/Association of Commonwealth Universities.
- Bloom, D., Canning, D., and Chan, K. (2006) *Higher Education and Economic Development in Africa*. Washington DC: The World Bank.
- Boyatzis, R. E. (1998) *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage Publications.
- Braun, V. and Clarke, V. (2006) *Using thematic analysis in psychology*. *Qualitative Research in Psychology*. 3(2): 77-101.
- Burns, N. and Grove, S.K. (2003) *Understanding nursing research (3rd)*. Philadelphia. World Bank. Saunders Company.
- Carnoy M., Castells, M., Cohen, S.S., and Cardoso, F.H. (1993) *The New Global Economy in the Information Age: Reflections on our changing world*. University Park: Pennsylvania State University Press.
- Castells, M. (2002) *Universities as dynamic systems of contradictory functions*. In: Muller J, Cloete N and Badat S (eds) *Challenges of Globalisation: South African debates with Manuel Castells*. Cape Town: Maskew Miller Longman.
- Castells, M. (2009) *Transcript of a lecture on higher education delivered at the University of the Western Cape, 7 August 2009*. Retrieved from <http://www.chet.org.za/seminars/>
- Cheru. F. (2009). Development in Africa: The Imperial Project Versus the National Project and the Need for Policy Space. *Review of African Political Economy*, 36:120, pp 275-278.
- Chitongo, L., Chikunya, P., & Marango, T. (2020). Do Economic Blueprints Work? Evaluating the Prospects and Challenges of Zimbabwe's Transitional Stabilization Programme. *African Journal of Governance & Development*, 9(1), 7-20. Retrieved from <https://journals.ukzn.ac.za/index.php/jgd/article/view/1622>
- CHET. (2011). *Universities and Economic Development. Draft report*. Cape Town: Centre for Higher Education Transformation. HERANA.
- Creswell, J.W. 2009. *Research design*. Thousand Oaks: SAGE.
- Dill, D.D. (2005). *The Public Good, the Public Interest, and Public Higher Education, Paper prepared for the Conference Recapturing the 'Public' in Public Higher Education or Blurring the*

Boundaries: The Changing Dynamics Between Public and Private Higher Education. The Graduate Center, City University of New York.

Dzvimbo, K.P (2022) Zimbabwe Council for Higher Education (ZIMCHE) annual performance and strategic review workshop from the 29th to the 30th of November, 2022. <https://www.zimche.ac.zw/blog/zimche-evaluates-2022-performance-and-charts-course-for-2023/> assessed 14 September 2023

Gakusi, A. (2008). *African Education Challenges and Policy Responses: Evaluation of the Effectiveness of the African Development Bank*. Third Annual African Economic Conference on “Globalization, Institutions and Economic Development of Africa”. Tunis, African Development Bank.

Government of Zimbabwe. (2018) *Doctrine for the Modernisation and Industrialisation of Zimbabwe through Education, Science, and Technology Development to Achieve Vision 2030*: Harare: Ministry of Higher and Tertiary Education, Science, and Technology Development.

Gumede, V. (2015) Exploring the Role of Thought Leadership, Thought Liberation and Critical Consciousness for Africa’s Development, *Africa Development*, 40(4), 22-58.

Gumede, V. (2019) *Rethinking and Reclaiming Development in Africa*. NdlovuGatsheni & Mpofu, B. *Rethinking and unthinking development: Perspectives on inequality and poverty in South Africa and Zimbabwe*. New York: Berghahn books.

Hammond, M. and Wellington, J. (2014) *Research Methods: The Key Concepts*, London: Routledge.

Hannon, D. (2013). Why is the entrepreneurial university important? *Journal of Innovation Management*, 1(2), 10-17.

Hölttä, S. and Malkki, P. (2000) *Response of Finnish higher education institutions to the national information society programme*. Helsinki University of Technology.

Kariwo, M. T. (2012). Higher education at the Crossroads. In E. Shizha & M. Kariwo, *Education and development in Zimbabwe: A social, political, and economic analysis*. Rotterdam: Sense Publishers.

Keller, K. R. I. (2006) Investment in primary, secondary, and higher education and the effects on economic growth. *Journal of Contemporary Economic Policy*, 24 (1), 18–34.

Kromydas, T. (2017). Rethinking higher education and its relationship with social inequalities: past knowledge, present state, and future potential. Palgrave Communications. Vol 3(1). <https://doi.org/10.1057/s41599-017-0001-8>

Latouche, S. (1993) *In the Wake of the Affluent Society: An Exploration of Post-development*. London: Zed Books.

Levy, D.C. (2006) *Private-Public Interfaces in Higher Education Development: Two Sectors in Sync?* Paper for Conference on Higher Education and Development: The World Bank Regional Seminar on Development Economics, 16-17 January 2006, Beijing.

MacGregor, K. (2009) ‘Africa: Call for higher education support fund.’ University World News. Retrieved from <http://www.universityworldnews.com/article.php?story=20090322082237425>

Maphosa, F. Kujunga, K. and Chingarande, S.D. (2008) *Zimbabwe Development Experiences Since 1980: Challenges and Prospects for the Future*, Harare: OSSREA.

-
- Mihyo P.B. (2007). *Staff Retention in African Universities and Links with Diaspora Study*. ADEA Working Group on Higher Education.
- Moja T, Muller J and Cloete, N. (1996) Towards new forms of regulation in higher education: The case of South Africa. *Journal of Higher Education*. 32(2): 129–155.
- Ndhlovu, E. (2020) Decolonisation of Development: Samir Amin and the Struggle for an Alternative Development Approach in Africa. *The SHARAN Journal* 1(1), 79-104.
- Nyandoro, D. (2021) UZ eyes value addition to agric produce: The Newsday 2 Augusts 2021. Retrieved from <https://www.newsday.co.zw/2021/08/uz-eyes-value-addition-to-agric-produce/>.
- Parahoo, K. (1997) *Nursing research: principles, process, and issues*. Basingstoke: MacMillan.
- Pereira, A., Pedrosa, T., Simon, K., Matovelli, K. (2013) In-depth interviews. Retrieved from http://www.ivm.vu.nl/mages/PT8_tcm53_161513..
- Phuti, N. (2022) Quality-driven university curriculum reform in Zimbabwe: a critical conceptualisation of harmonised minimum bodies of knowledge. *Journal of Higher Education Evaluation and Development* Vol. 16(2), 121-135.
- Pollit, D.F., Bek, C.T. and Hunger, B.P. (2001) *Essentials of nursing research: methods appraisal and utilisation 5th Ed*. Philadelphia Lippincott Williams: Williams.
- Psacharopoulos G, Tan, J.P., and Jimenez, E. (1986) *The Financing of Education in Developing Countries: Exploration of policy options*. Washington DC: The World Bank.
- Reichert, S. (2019). The role of universities in regional innovation ecosystems. European University Association (EUA) <https://eua.eu/downloads/publications/eua%20innovation%20ecosystem%20report.pdf>, assessed 24 September 2023.
- Rodney, W. (1972). *How Europe Underdeveloped Africa*. Washington, DC: Howard University Press.
- Santiago, P., Tremblay, K., Basri E and Arnal, E. (2008) Tertiary Education for the Knowledge Society. Volume 1. Paris: Organisation for Economic Co-operation and Development.
- Satumba, C. (2019) Zimbabwe embarks on programme to set up Innovation hubs in its universities. Documentation and communications Associate, ARIPO. Retrieved from www.aripo.org/success_stories/zimbabwe_emarks_on_a_programme_to_set_up_innovation_hubs_at_its_univerisities.
- Sawyer, A. (2004) *Challenges Facing African Universities: Selected issues*. Accra: Association of African Universities.
- Schaap, J.I. (2006). Toward Strategy Implementation Success: An Empirical Study of the Role of Senior-Level Leaders in the Nevada Gaming Industry, *UNLV Gaming Research and Review Journal*, 2(1), 13-38.
- Serageldin, I. (2000) *University governance and the stakeholder society. Keynote Address, 11th General Conference: Universities as Gateway to the Future*. Durban, International Association of Universities
- Simon, M.K. (2011) *Dissertation and Scholarly Research: Recipes for Success*. Washington D.C.: Seattle.
-

- Tagwira, F. (2018) *Rethinking Education in the 'New Dispensation' in Zimbabwe*. Mutare: Africa University, Keynote Address at the 2018 Student Academic Freedom Regional Advocacy Meeting.
- Tandon. Y. (2015) 'Development is Resistance', *Africa Development XL* (3(1),139–59.
- The Herald, (2020) President caps 4 959, launches three projects. Retrieved from <https://www.herald.co.zw/president-caps-4-959-launches-three-projects/>
- Wallace Foundation Internet Source. (n.d) Workbook E: Conducting in-depth interviews. Retrieved from <https://www.wallacefoundation.org/knowledge-center/Documents/Workbook-E-Indepth-Interviews.pdf>.
- Walker, M. (2006) *Higher education pedagogies: A capabilities approach*. Maidenhead: SRHE/Open University Press and McGraw-Hill.
- World Bank. (2009) *Accelerating Catch-up: Tertiary education for growth in sub-Saharan Africa*. Washington DC: The World Bank.
- Yesufu TM (ed.) (1973) *Creating the African University: Emerging issues of the 1970s*. Ibadan: Oxford University Press.
- Yin, R. K. (1994) *Case study research design and methods*. Thousand Oaks: SAGE.
- ZIMCHE (Zimbabwe Council for Higher Education) (2018), Draft Annual Report for the Year 2018, ZIMCHE, Harare. Retrieved from <http://www.zimche.ac.zw/wp-content/uploads/2019/04/ZIMCHEDraft-Annual-Report-2018.pdf>.

SSIRC 2023-080**THE EFFECTS OF BUSINESS START-UP FACTORS ON THE PERSONAL ATTITUDE OF AGRICULTURAL STUDENTS IN SOUTH AFRICA****M. Mavhungu**

Tshwane University of Technology, South Africa

ABSTRACT

The study aimed to examine the effect of social networking, sociocultural forces, and subjective norms on the personal attitude of agricultural students to start a business. Data from agricultural students were collected through a Prospective Farmers Profile Questionnaire at six institutions and used in the study. The empirical results of the study indicate that there was a significant effect only on two business start-up factors, namely sociocultural forces, and subjective norms but no statistically significant effect of social networking on the personal attitudes of agricultural students to start a business. Based on the research finding, a study is required to examine the effect of social networking, sociocultural forces, and subjective norms on the personal attitude of students to start a business from other fields of study, for example, students from Economics, Humanities, Engineering or Commerce and Business faculties. The personal attitude of agricultural students to start a business is not predicted by social networking (p -value=0.738). Social networking is one of the most important factors that predict entrepreneurial drive, but agricultural students do not consider it important. Therefore, it is recommended that agricultural students should be orientated to this factor and its role in entrepreneurship through entrepreneurship education.

KEYWORDS: agricultural students, business start-up, entrepreneurship, personal attitude, social networking, sociocultural forces, subjective norm.

1. INTRODUCTION

Entrepreneurship is considered a vital mechanism in the economic performance of nations across the globe (Mustapha & Selvaraju, 2015). A high rate of business start-ups contributes significantly to national economic development, job creation, and social wealth (Pereira et al., 2018). Hummel et al. (2013) indicate that economic growth and employment creation are products of entrepreneurship. Furthermore, Hummel et al. (2013) highlight that entrepreneurship plays a significant role in poverty reduction through job creation. According to Hermann et al. (2007), the field of new business start-ups has been a subject of increasing interest to achieve macroeconomic goals of growth through enhancing start-up intentions and business success. Machete et al. (1997) reported that business start-ups have great potential to increase employment and income for the poor in South Africa, a country facing a high unemployment rate, skewed income distribution and poverty. An entrepreneur is a person who presents a new product or service to the market with a new idea of establishing a business by mobilizing sources associated with financial, social and honour risks (Ahmadpoor & Erfanian, 2007). Business start-ups bring together labour and capital in generating income, output, and jobs. However, the level of business start-ups is struggling in South Africa and other countries across the continent because they are not expanding fast enough to address the issue of unemployment.

Countries like Bosnia and Herzegovina continue to face the challenge of achieving sustainable growth and development (Mujkić, 2021). This challenge can be addressed by entrepreneurship development through business start-ups in all aspects, being a powerful mechanism of economic development (Mujkić, 2021). South Africa as a country is also facing the same challenge of achieving sustainable growth to address the unemployment issue and economic growth through the establishment of businesses. This might be due to lack of enough government funding, lack of skills in the field, lack of interest by entrepreneurs and electricity crisis (loadshedding). The agricultural sector plays a crucial role but is not enough because although land is available for farming other products such as rice and beef are still imported from other countries. According to the Department of Agriculture, Land Reform and Rural Development (2021), South Africa's total import value of primary agricultural products was R35 billion (36.5% of total agricultural imports) and the total import value for secondary agricultural products was R61 billion (63.5% of total agricultural imports). A country such as SA therefore suffers economically due to low levels of business start-ups in the sector. In 2020 and 2021, agriculture was one of only four sectors of the economy to register growth (Bureau for Food and Agricultural Policy (BFAP), 2021).

According to Statistics South Africa (2022), South Africa's unemployment rate was at 32.9% in the third quarter of 2022, down from 33.9% in the prior period and below market estimates of 33.4%. The expanded definition of unemployment, including people who have stopped looking for work, was at 43.1%, down from 44.1% in the second quarter (Statistics South Africa, 2022). People stopped looking for work because they lost confidence in being employed because of job scarcity in the country. The Global Entrepreneurship Monitor (GEM) (2017) survey (the 16th in which SA has participated) confirms that SA has persistent low levels of entrepreneurial activity relative to other countries participating in GEM. The question that one might ask is why the majority of South Africans do not consider creating jobs for themselves by establishing businesses. This gap might also be filled by entrepreneurs through start-up establishments in the agricultural sector. Business start-up factors may not be ruled out in this regard as a key behind the challenge of low participation in entrepreneurial activities. The findings of the study by Tunio et al. (2021) suggest that family trust issues, education and legal factors are among the challenges which trigger changes in the entrepreneurial process and its sustainability. Therefore, agriculture is a primary production endeavor as such entrepreneur is key factor in the system.

To start a business anywhere, people should try to understand and become familiar with the area of establishment and other business start-up factors, including social networking. Social networking is considered an important instrument in the early stages of the initiation of the business because internal resources are often very limited (Jones & Jayawarna, 2010). The study by Park et al. (2017) found that social networking offers opportunities to reach target customers and generate new ideas for starting a business. According to Milanov and Fernhaber (2009), research on networks indicates that the importance of social networking has surfaced as a vital new area of interest in the field of entrepreneurship, especially its role in new business establishment and support. Gorji (2021) revealed that sociocultural factors such as beliefs, attitudes and values of a society are other business start-up factors to be considered when engaging in entrepreneurship activities. The results of the study by Amanamah et al. (2018) reflect that the

intention to start a business by university students in Ghana is not influenced by sociocultural factors. It was perceived that their level of self-confidence might have affected their outlook, so culture and social norms have less influence on their decision. Amanamah et al. (2018) further reported that the need for further studies to clarify this point is recommended. Wahyumi et al. (2019) in their study to determine the role of subjective norms on entrepreneurship found that subjective norms significantly influence students' interest in entrepreneurship.

Given the policy focus placed on business start-ups as a mechanism for addressing unemployment and generating income in many countries around the world as explained by many researchers, the objective of this paper is to establish the effect of business start-up factors (social networking, sociocultural forces, and subjective norm) on the personal attitude of agricultural students to start a business. It is therefore evident that a negative relationship between social networking, sociocultural forces, subjective norms, and students' personal attitude to start a business may affect entrepreneurship success. Many researchers including Debarliev et al. (2015); Malebana (2014) and Liñán and Chen (2009) investigated the entrepreneurial intention of students based on the Theory of Planned Behaviour of Azjen, but very few, if any, did a study on the personal attitude of agricultural students to start a business in South Africa based on these business start-up factors. Understanding the personal attitudes of agricultural students to starting a business will also assist policymakers to come up with strategies to enhance entrepreneurship education to intensify entrepreneurial activities in the agricultural sector.

Following this introduction, the paper presents a review of the literature under the following themes: Personal attitude to start a business, business start-up factors (social networking, sociocultural forces, and subjective norms), methodology, results, and discussion and finally, the conclusion.

2.LITERATURE REVIEW

2.1. Personal attitude to start a business.

According to the Theory of Planned Behaviour, personal attitude is the degree to which an individual holds a positive or negative personal valuation of becoming an entrepreneur (Autio et al., 2001). Debarliev et al. (2015) argue that attitude to the act reflects the person's valuation of the individual desirability of establishing a new business. Liñán and Chen (2009) report that beliefs are antecedents of attitudes because beliefs explain attitude, while attitude explains intention. Canizares and Garcia (2010) emphasise that psychological and non-psychological factors (demographic, training, and experience) are pertinent in clarifying the existence of entrepreneurial attitudes. The findings of Malebana (2014) confirm that attitude to becoming an entrepreneur, perceived behavioural control and subjective norms predict the intention to establish new business start-ups among rural university students in the Limpopo province of SA. Non-psychological factors such as demographic, training and experience and other psychological factors have an influence on prosperity for business start-ups.

Debarliev et al. (2015) found that entrepreneurial research acknowledges entrepreneurial behaviour extensively and is considered the proximal predictor of the choice to participate in entrepreneurship. According to GEM (2017), potential entrepreneurs identify opportunities first and believe that they have the necessary skills and expertise to start a business before they act. The stronger the level of entrepreneurship, the higher the likelihood that a focal behaviour will be performed (Ajzen, 1991). In essence, people choose or plan to engage in entrepreneurship. New business start-ups do not emerge by accident, nor are they passive products or services of environmental conditions (Shaver & Scott, 1991). According to Ajzen (2005), a person develops the attitude to perform a certain behaviour and this attitude remains an attitude until when the appropriate time and opportunity arise, the attitude is transformed into intention and ultimately into action.

Based on the arguments of Debarliev et al. (2015) and Liñán and Chen (2009), the researchers equated personal attitude to start a business and intention to start a business. Because they are treated as equal (the same) the researchers used them interchangeably. According to Soria et al. (2016), entrepreneurial intention is considered crucial to understanding the process of creating a new business, for example, a role player who mobilises persons to initiate their own business or those who consider initiating their own business start-up. It was expected that there would be a statistically significant relationship between the degree of personal attitude to start a business and the following business start-up factors: social networking, sociocultural forces, and subjective norm.

2.2. Business start-up factors

In this section business start-up factors that play a crucial role in entrepreneurship are discussed. Each of these business start-up factors is explored further, starting with social networking.

2.2.1 Social networking

Social networking is viewed by Hoang and Antoncic (2003) as the channel through which an entrepreneur gains access to a variety of resources held by other entrepreneurs. By being part of a social network, entrepreneurs can learn new skills and techniques, share past experiences, and gain free entrepreneurial advice on how to solve problems they encounter (Hoang & Antoncic, 2003; Jensen & Greve, 2002; Johannisson et al., 1994). Furthermore, Greve (1995) and Mushtaq et al. (2011) argue that without extensive social networks, it becomes difficult for persons to access information and develop relationships with other people who are in business. Milanov and Fernhaber (2009) indicate that businesses with larger alliance networks benefit from the initiative but surprisingly relatively few studies exist on how new businesses build and grow their networks. According to Batjargal (2010), Chinese entrepreneurs use social networking to their advantage because strategically they manage to access resources, technology, markets, information, and political protection through relationships. The findings of Guan and Fan (2020) suggest that social networks have a positive impact on the operating efficiency of technology business incubators (TBIs) in China.

Batjargal (2010) indicates that entrepreneurs' networking skills are essential because they have a positive effect on the structural changes of entrepreneur networks over time. Baron and Tang (2009) argue that there is a significant relationship between entrepreneurs' social skills and new business performance and therefore it is important for entrepreneurs to possess social skills. Batjargal (2007) associates social networking and social capital and defines social capital as "relationships and resources embedded in social networks". Institutions and networks may influence and have a positive impact on entrepreneurial development in many countries across the globe (Aidis et al., 2008). Milanov and Fernhaber (2009) report that for a new business to succeed in its operations, alliance networks have proved to be important in overcoming difficulties commonly associated with the liabilities of newness. Semrau and Sigmund (2012) argue that entrepreneurial success relies on the network that new businesses should embed. Semrau and Sigmund further state that new business network characteristics, such as size and quality of network relationships, are contributing factors to new business success. However, Park et al. (2017) found the contrary when investigating the influence of social networking on entrepreneurial opportunity. The results reflect that using social networking might hinder entrepreneurs' abilities to recognize opportunities that lead to starting a business. Furthermore, the findings revealed that although social networking can facilitate excellent communication and the decision-making process, it may lead to a lack of socialization in practice.

According to Griffin-El (2015), networking has a crucial role to play in entrepreneurial practice because it provides a range of means to entrepreneurial experience. An individual entrepreneur requires a network of supporters while entrepreneurship involves mobilising community support (Westlund et al., 2014). Social networking is viewed by Griffin-El (2015) and Hoang and Antocic (2003) as the channel through which an entrepreneur gains access to various resources held by other entrepreneurs, such as the flow of knowledge, access to new markets and finance, enabled by relationships. One of the most important entrepreneurial activities is the mobilisation of financial resources, which can be achieved by establishing a network of supportive relationships (Steier & Greenwood, 2000). Steier and Greenwood further highlight that networking is the final arbiter of competitive success. The study by Subrahmanyam (2019) revealed that activation or use of social relationships (networks) is primarily done in the establishment phase. So, it is indeed considered a key element for the success of entrepreneurial activity.

Greve (1995) and Mushtaq et al. (2011) argued that without extensive social networks, it becomes difficult for persons to access information and develop relationships with other people who are in business. Griffin-El (2015) found that relationships and social activity are the driving forces of innovation. Expressive networks include social relationships that transfer resources using components such as social support, friendship, and advice about personal matters, which are not directly relevant to achieving the goals of the organization (Moolenaar et al., 2012). It was therefore expected that low or lack of social networking would be associated with negative personal attitudes of agricultural students to start an agricultural business because without extensive social networks, it becomes difficult for persons to access information and develop relationships with other people who are in business. Literature proves that social networking skills are a key business start-up factor. The absence of these skills may hinder the success of

entrepreneurial activity. It is therefore predicted that there should be a statistically significant relationship between social networking and personal attitude of agricultural students to start an agricultural business.

H1: Personal attitude of agricultural students to start an agricultural business is predicted by social networking.

2.2.2 Sociocultural forces

Begley and Tan (2001) show that sociocultural factors can influence the personality, attributes, and lifestyle of an individual. Herrington et al. (2009) argue that the career choice of an individual is normally influenced by their social environment, with most believing that looking for paid employment is a better option than being a job creator. Culture is considered a vital element in the study of entrepreneurship. Socially, the structure, social development and culture of a country are some of the important factors that affect the entrepreneurial decision to start new businesses (Castaño et al., 2015). According to Jones and George (2008), sociocultural forces are pressures that originate from the social structure of the country or society or the national culture. Spigel (2013) states that culture is an important element of entrepreneurship because it assists in highlighting the differences in the entrepreneurship process observed between regions, industries, and sociocultural groups.

Hopp and Stephan (2012) argue that strongly motivated entrepreneurs with high self-efficacy are indeed likely to flourish in performance-based sociocultural environments. Hopp and Stephan continue, that a socially supportive institutional environment may facilitate emerging entrepreneurs to access the vital resources required to establish their own businesses. The result of the study by Amanamah et al. (2018) revealed that the entrepreneurial drive of university students in Ghana was less influenced by the sociocultural environment. The result reflects that university students and their education level have built their confidence in the drive to start a business. Tanveer et al. (2011) found that the existence of social-cultural constraints is liable to influence the participation of persons in entrepreneurial activities. Negative sociocultural forces are considered factors that influence business start-ups. It was therefore predicted that family support would be associated with a positive personal attitude to start a business. Having family members with businesses has a negative influence on one's personal attitude to start one because of the challenges observed during business operations. It was expected that there would be a statistically significant relationship between sociocultural forces and the personal attitude of agricultural students to start a business.

H2: Personal attitude of agricultural students to start a business is predicted by sociocultural forces.

2.2.3 Subjective norms

One of the key concepts addressed by Ajzen's Theory of Planned Behaviour is that there are differences between the attitude of individuals intending to engage in entrepreneurial activities and their behaviour. The fact that there is a serious entrepreneurial attitude does not necessarily mean that entrepreneurial activity will be pursued, and a business will be established. Entrepreneurial

attitude depends on the subjective norms, amongst others, of an individual. The findings of the study of Gubik and Farkas (2019) show that social norms such as the behaviour of the environment (family and friends) indeed shape entrepreneurial attitudes while higher education may be the only relatively rapid developer of norms. Utami (2017), in the study of entrepreneurship of university students in Indonesia, found that subjective norms have a positive and significant influence on entrepreneurship.

Odumosu et al. (2019), in their study on subjective norms and entrepreneurship for sustainable enterprise development among selected university students in Lagos State, Nigeria, found similar results. The same applies to Krithika and Venkatachalam (2014) in their study on the impact of subjective norms on entrepreneurship among Business students, in particular in Bangalore. Sait Dinc and Budic (2016) found different international empirical studies embody the impact of subjective norms (family and friends) and have less or no effects on entrepreneurial behaviour formation. Bhuyan and Pathak (2019) in their study on the impact of subjective norms on entrepreneurship of university students in Uttarakhand State, found that subjective norms have a positive influential impact on entrepreneurship, especially in the Indian context. Maydiantoro et al. (2021) found that subjective norms also have a significant effect on entrepreneurship, and it was the variable that mostly influences students' entrepreneurial interest more than self-efficacy. It was expected that there would be a statistically significant relationship between subjective norms and personal attitudes of agricultural students to start a business.

H3: Personal attitude of agricultural students to start a business is predicted by subjective norms.

3. METHODOLOGY

3.1. Research design

This study utilised secondary research (textbooks, books, review articles) while empirical research was carried out employing a descriptive research design. A survey was used as the data collection method. Cooper and Schindler (2008) define a survey as a “measurement process used to collect information during a highly structured interview”. Surveys may be used in studies that are usually quantitative in nature and are aimed at providing a broad overview of a representative sample of a large population (Mouton, 2001). The objective of this paper is to establish the effect of business start-up factors (social networking, sociocultural forces, and subjective norm) on the personal attitude of agricultural students to start a business. Based on this objective, the researcher deemed the quantitative method applicable.

3.2. Sampling method

A non-probability sampling design was deemed appropriate for this study. The research population comprised third-year students enrolled solely for agriculture programmes, at all 27 South African universities and permission to gather data was granted by six institutions (one from each province, Eastern Cape, Free State, Gauteng, Limpopo, Mpumalanga and North-West). The number of agricultural students in these six participating institutions was 1,123. The questionnaires were self-

administered. The researcher personally distributed questionnaires to the participants. 421 students returned completed questionnaires which is the number used in the analysis.

3.3. Research instrument

The use of a questionnaire is appropriate where the researcher requires an analytical approach to exploring relationships between variables. Jansen (2010) reports that the endorsement of questionnaires by researchers as an instrument for data collection is based on its advantages, which include distribution to many respondents at a relatively low cost, returning a high response rate as compared to other instruments. Therefore, a questionnaire was deemed appropriate for this study.

3.4. Data collection

Data was collected using a self-developed questionnaire that was named Prospective Farmers Profile Questionnaire (PFPQ). The questionnaire contained questions on the agricultural students' responses to business start-up factors. Business start-up factors, namely social networking, sociocultural forces, and subjective norms were investigated using a Likert scale. This will be further analysed under data analysis.

3.5. Data analysis

Factor loading after rotation is reported in Table 1 below.

Table 1: Factor loading after rotation.

| Constructs | Factor loadings | Item-rest correlation | Cra in the absence of the item | Cronbach's Alpha |
|---|-----------------|-----------------------|--------------------------------|------------------|
| Personal Attitude | | | | |
| A career as an entrepreneur is attractive to me. | 0.83 | 0.70 | 0.816 | 0.785 |
| Being an entrepreneur would give me great satisfaction. | 0.86 | 0.76 | 0.679 | |
| If I had the opportunity and resources, I would love to start my own business. | 0.7 | 0.58 | 0.667 | |
| Being an entrepreneur brings with it more advantages than disadvantages, in my opinion. | 0.51 | 0.48 | 0.727 | |
| I am inspired by role models in the industry to start a business. | 0.42 | 0.37 | 0.762 | |

Social Networking

| | | | | |
|--|------|------|-------|-------|
| The unavailability of legal assistance and business advice discourages me from starting a business. | 0.33 | 0.44 | 0.792 | 0.797 |
| Due to lack of direct contact with successful entrepreneurs I would be hesitant to start a business. | 0.5 | 0.56 | 0.763 | |
| Due to lack of social networking, it would be difficult for me acquire any new skills. | 0.77 | 0.67 | 0.740 | |
| A lack of social networking will make it impossible for me to get relevant information on the business start-up process. | 0.72 | 0.61 | 0.753 | |
| It would be extremely difficult to get entrepreneurial advice from entrepreneurs without social networks. | 0.7 | 0.55 | 0.768 | |
| Without financial support from other entrepreneurs in my social network, I would not consider starting a business. | 0.56 | 0.49 | 0.780 | |

Sociocultural Forces

| | | | | |
|---|------|------|-------|-------|
| Family and friends do not approve of me starting a farming business. | 0.67 | 0.48 | 0.706 | 0.715 |
| My culture discourages starting a farming business. | 0.69 | 0.59 | 0.582 | |
| It would be difficult to start a farming business because the people close to me do not encourage entrepreneurship. | 0.74 | 0.57 | 0.587 | |

Subjective Norm

| | | | | |
|---|------|------|-------|-------|
| My friends will approve of a decision on my part to start a business. | 0.56 | 0.24 | 0.547 | 0.517 |
| I can identify with the goals of the farming industry. | 0.43 | 0.40 | 0.399 | |
| I am inspired by role models in the industry to start a business. | 0.38 | 0.33 | 0.426 | |
| My community will support any entrepreneurial activities in which I engage. | 0.49 | 0.33 | 0.429 | |

As seen in Table 1, factor loadings for personal attitude ranged from 0.42 to 0.86, which indicates that factors are closely related and were all important towards the factor personal attitude. The personal attitude subscale consisted of 5 items ($\alpha = .79$), which indicates good internal consistency. The social networking subscale consisted of 6 items ($\alpha = .80$) which is a good indicator of internal consistency and the factor loadings ranged from 0.33 to 0.77. The importance of each factor is seen in column 4 where if a specific item was to be deleted the scale reliability would decrease. The sociocultural forces subscale consisted of 3 items with good internal consistency of $\alpha = .72$ and the factor loading was high, ranging from 0.67 to 0.74. Lastly, the subjective norm subscale consisted of 4 items and the calculated $\alpha = 0.52$, which was lower compared to other subscales. Furthermore, the factor loadings for the subjective norm construct were also lower compared to other ranges (0.38 – 0.56). As illustrated in Table 1, all the assessed variables had an acceptable reliability coefficient α ranging from 0.65 to 0.83. A commonly accepted rule of thumb is that an α of 0.6–0.7 indicates acceptable reliability and 0.8 or higher indicates good reliability. Therefore, the research measures are satisfactorily acceptable for conducting further data analysis through inferential statistics to test the research hypothesis.

4. RESULTS AND DISCUSSIONS

The primary aim of this study was to examine the effect of social networking, sociocultural forces, and subjective norms on the personal attitudes of agricultural students to start a farming business. A regression test was run, with social networking, sociocultural forces and subjective norms as the predictors, and personal attitude as the dependent factor. Table 2 presents the factors influencing personal attitudes toward starting a farming business.

Table 2: Factors affecting personal attitude to start the farming business.

| Personal Attitude | Coefficient | P>t | 95% Confidence Interval | |
|----------------------|-------------|-------|-------------------------|--------|
| Intercept | 21.76 | 0.000 | 19.38 | 24.15 |
| Social networking | 0.008 | 0.738 | -0.041 | 0.058 |
| Sociocultural forces | -0.154 | 0.005 | -0.262 | -0.047 |
| Subjective norm | 0.483 | 0.000 | 0.387 | 0.579 |

H1 states: Personal attitude of agricultural students to start a business is predicted by social networking. H1 is rejected because the empirical results of the study indicate that there was no significant effect of social networking on the personal attitude of agricultural students to start a business. The results reflect that there was a non-significant effect of social networking on the personal attitude of agricultural students to start a farming business. Firstly, a quantile regression test reflects the following results: social networking (coef: 0.008, 95% CI [-0,041; 0.058] p-value=0.738). The results are contrary to the findings of Guan and Fan (2020) who reported that

social networking has surfaced as a vital new area of interest in the field of entrepreneurship, especially its role in new business establishment and support. Milanov and Fernhaber further indicate that for a new business to succeed in its operation, alliance networks are important in overcoming difficulties commonly associated with liabilities of newness. In addition, Subrahmanyam (2019) found that entrepreneurial success in new business start-ups relies on the social network that they should embed to achieve their set goals. Steier and Greenwood (2000) further highlight that networking is the final arbiter of competitive success. These results reflect that in current times, and especially among students, social networks are used for chatting. Agricultural students are not yet business owners, therefore they might not have learnt that social networks are critical in conducting business, for example, setting up appointments, arranging interviews, negotiating deals, and distributing important documents. Internet use is now crucial in starting and running any business. Agricultural students might face the challenge of limited access to data, which is expensive in South Africa. Access to social networks for business start-ups may be restricted by limited data accessibility.

H2 states: Personal attitude of agricultural students to start a business is predicted by sociocultural forces. This hypothesis is accepted because the empirical results of the study indicate that there was a significant effect of sociocultural forces on the personal attitude of agricultural students to start a business. Secondly, a regression model reflects the following results: sociocultural forces (coef: -0.154, 95% CI [-0.262; -0.047] p-value<0.005) significantly decrease the influence of personal attitude of agricultural students to start a farming business. An increase in the effect of sociocultural forces would decrease the personal attitude level of agricultural students by -0.047. The results are in line with the findings of Greve and Salaff (2003) who confirmed that one of the social-cultural factors, namely family business background, may minimise personal attitude to start a business because persons can take advantage of their networks and available social capital. These results are also in line with the study done by Castaño et al. (2015) who found that socially, the structure, social development and culture of a country are some of the most important factors that affect the entrepreneurial decision to start new businesses. Tanveer et al. (2011) also established that the existence of social-cultural constraints is liable to influence the participation of persons in entrepreneurial activities. The reason sociocultural forces have a negative effect on agricultural students to start a business might be because few entrepreneurs in their communities are successful in their businesses operation and do not set a positive example for the youth to aspire to their personal attitude to entrepreneurship. This might affect their personal attitude level to start a business because they are exposed to the same environment at an early age.

H3 states: Personal attitude of agricultural students to start a business is predicted by subjective norms. H3 is accepted because the empirical results of the study indicate that there was a significant effect on subjective norms and personal attitudes of agricultural students to start a business. Thirdly, a regression model reflects the following results: subjective norm (coef: 0.483, 95% CI [0.387; 0.579] p-value<0.000) positively and significantly influences the personal attitude of agricultural students to start a farming business. An increase in the measures of the subjective norm would increase the personal attitude level of agricultural students by 0.483. The results are in line with the findings of Maydiantoro et al. (2021), that subjective norms have a significant

effect on entrepreneurship attitude, and it was a variable that mostly influences students' entrepreneurial interest. Furthermore, Bhuyan and Pathak (2019) in their study on the impact of subjective norms on the entrepreneurial attitude to start a business of university students in Uttarakhand State also found that subjective norms have a positive influential impact on the entrepreneurial attitude to start a business. Based on the results, agricultural students consider subjective norms as an important business start-up factor that plays a crucial role in entrepreneurship. The perception of agricultural students is in line with Rachmawan et al. (2015) who state that perceived social pressure to decide whether to carry out entrepreneurial behaviours is measured by subjective norms. The results reflect that agricultural students consider subjective norms as an important factor in entrepreneurship and believe that an individual observing positive contributions by those involved in entrepreneurial activities will be positively influenced and consider engaging in the process of entrepreneurship.

5. CONCLUSION

The objective of this study was to examine the effect of social networking, sociocultural forces, and subjective norms on the personal attitude of agricultural students to start a business. The results reflect that the personal attitude of agricultural students to start a business is predicted by sociocultural forces and subjective norms. On the other hand, the personal attitude of agricultural students to start a business is not predicted by social networking. Social networking is one of the most important factors that predict entrepreneurial intention, but agricultural students do not consider it important. Therefore, it is recommended that agricultural students should be orientated to this factor and its role in entrepreneurship through entrepreneurship education. The government, institutions of higher learning and the agricultural sector, in general, may also intervene by educating students through different platforms, for example, roadshows, exhibitions, career guidance and other events to familiarise them with the role that this factor may play in entrepreneurship. Programmes should include, for example, the importance of social networks in promoting innovation and reducing uncertainty and the benefits of social networking in entrepreneurship. The sample used is considered adequate to represent third-year agriculture students in SA. However, a larger sample inclusive of first- and second-year students might have yielded different results. A study on a sample of graduate farmers in SA should be done. The investigation would assist to establish the real business start-up factors affecting their personal attitudes to establish a business.

REFERENCES

- Ahmadpoor D. M., and Erfanian, A. (2007). The role and place of entrepreneurship in reaching economic growth and development. *Economic Magazine. Office of Economic Affairs, Ministry of Economic Affairs and Assets*, 7(69), 1-19.
- Aidis, R., Estrin, S., and Mickiewicz, T. (2008). Institutions and entrepreneurship development in Russia: A comparative perspective. *Journal of Business Venturing*, 23(6), 656-672. <http://dx.doi.org/10.2139/ssrn.1017252>

-
- Ajzen, I. (1991). The theory of planned behavior. *Organisational Behavior Human Decision Process*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I. (2005). *Attitudes, personality, and behaviour*. 2nd ed. Maidenhead, UK: Open University Press.
- Amanamah, R. B., Owusu, E. K., and Acheampong, A. C. (2018). Barriers to entrepreneurial intention among university students in Ghana. *European Journal of Research and Reflection in Educational Sciences*, 6(1): 29-43.
- Autio, E., Keeley, R., Klofsten, M., Parker, G. G. C., and Hay, M. (2001). Entrepreneurial intent among students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2(2):145-160. <https://doi.org/10.1080/14632440110094632>
- Baron, R. A., and Tang, J. (2009). Entrepreneurs' social skills and new venture performance: Mediating mechanisms and cultural generality. *Journal of Management*, 35(2), 282-306. <https://psycnet.apa.org/doi/10.1177/0149206307312513>
- Batjargal, B. (2007). Comparative social capital: Networks of entrepreneurs and venture capitalists in China and Russia. *Management and Organization Review*, 3, 397-419. <https://doi.org/10.1111/j.1740-8784.2007.00080.x>
- Batjargal, B. (2010). Network dynamics and new ventures in China: A longitudinal study. *Entrepreneurship and Regional Development*, 22(2), 139-153. <http://dx.doi.org/10.1080/08985620802628864>
- Begley, T. M., and Tan, W. L. (2001). The social-cultural environment for entrepreneurship: A comparison between East Asian and Anglo-Saxon countries. *Journal of Business Studies*, 32(3), 537-553. <https://doi.org/10.1057/palgrave.jibs.8490983>
- Bhuyan, M., and Pathak, P. (2019). Entrepreneurship development and bridging gender gaps. *International Journal of Advance and Innovative Research*, 6(1), 56-65.
- Bureau for Food and Agricultural Policy (BFAP). (2021). *Agricultural outlook*. Available from: <https://www.sagis.org.za/BFAP-Baseline-2021.pdf>
- Canizares, S. M. S., and Garcia, F. J. F. (2010). Gender differences in entrepreneurial attitudes. *Equity, Diversity and Inclusion: An International Journal*, 29(8): 766-786. <https://doi.org/10.1108/02610151011089519>
- Castaño, M. S., Méndez, M. T., and Galindo, M. A. (2015). The effect of social, cultural, and economic factors on entrepreneurship. *Journal of Business Research*, 68(2015), 1496-1500. <https://doi.org/10.1016/j.jbusres.2015.01.040>
- Cooper, D., and Schindler, P. (2008). *Business research methods*. 10th ed. New York: McGraw-Hill/Irwin.
- Debarliev, S., Janeska-Iliev, A., Bozhinovska, T., and Ilieva, V. (2015). Antecedents of entrepreneurial intention: Evidence from Republic of Macedonia. *Business and Economic Horizons*, 11(3), 143-161. <http://dx.doi.org/10.15208/beh.2015.11>
-

-
- Department of Agriculture, Land Reform and Rural Development. (2021). Trade performance review of the agricultural sector of South Africa: 2020. Available from: https://agfstorage.blob.core.windows.net/misc/FP_com/2021/04/12/AgriSA.pdf.pdf.
- Global Entrepreneurship Monitor (GEM). (2017). *Global Report 2017-2018*. Available from: <https://www.gemconsortium.org/file/open?fileId=50012>
- Gorji, M. B. (2021). The study of barriers to entrepreneurship in men and women. *Australian Journal of Business and Management Research*, 1(9), 31-36.
- Greve, A. (1995). Networks and entrepreneurship - an analysis of social relations, occupational background, and use of contacts during the establishment process. *Scandinavian Journal of Management*, 11(1), 1-24. [https://psycnet.apa.org/doi/10.1016/0956-5221\(94\)00026-E](https://psycnet.apa.org/doi/10.1016/0956-5221(94)00026-E)
- Greve, A., and Salaff, J. W. 2003. Social networks and entrepreneurship. *Entrepreneurship Theory and Practice*, 28(1): 1–20. <https://doi.org/10.1111/1540-8520.00029>
- Griffin-El, E. W. (2015). Network-based resources for the innovation process of South African micro-entrepreneurs: A conceptual framework. *South Africa Journal of Business Management*, 46(3), 79-89. <https://doi.org/10.4102/SAJBM.V46I3.103>
- Guan, C., and Fan, Y. (2020). The impact of social networks on the operating efficiency of Chinese technology business incubators. *Sustainability* 2020, 12(7), 27. <https://doi.org/10.3390/su12072727>
- Gubik, A. S., and Farkas, S. (2019). Entrepreneurial intention in the Visegrad Countries. *Law, Economics and Social Issues Review*, 10(4), 347-368. <http://dx.doi.org/10.2478/danb-2019-0018>
- Hermann, F., Lueger, M., and Korunka, C. (2007). The significance of personality in business start-up intentions, start-up realization and business. *Entrepreneurship and Regional Development. An International Journal*, 19(3), 227-251. <http://dx.doi.org/10.1080/08985620701218387>
- Herrington, M., Kew, J., and Kew, P. 2009. *Tracking entrepreneurship in South Africa: A GEM perspective*. Available from: <http://www.gibs.co.za/SiteResources/documents/The%20Entrepreneurial%20Dialog>
- Hoang, H., and Antoncic, B. (2003). Network-based research in entrepreneurship: A critical review. *Journal of Business Venturing*, 18, 165-187. [https://doi.org/10.1016/S0883-9026\(02\)00081-2](https://doi.org/10.1016/S0883-9026(02)00081-2)
- Hopp, C., and Stephan. (2012). The influence of sociocultural environments on the performance of nascent entrepreneurs: Community culture, motivation, self-efficacy and start-up success. *Entrepreneurship and Regional Development*, 24(9-10), 917-945. <https://doi.org/10.1080/08985626.2012.742326>
- Hummel, J. T., Gujadhur, T., and Ritsma, N. (2013). Evolution of tourism approaches for poverty reduction impact in SNV Asia: Cases from Lao PDR, Bhutan and Vietnam. *Asia Pacific*
-

-
- Journal of Tourism Research*, 18(4), 369-384.
<https://doi.org/10.1080/10941665.2012.658417>
- Jansen, H. (2010). The logic of qualitative survey research and its position in the field of social research methods. *Forum: Qualitative Social Research*, 11(2): 1-21.
<https://doi.org/10.17169/fqs-11.2.1450>
- Jenssen, J. I., and Greve, A. (2002). Does the degree of redundancy in social networks influence the success of business start-ups? *International Journal of Entrepreneurial Behaviour and Research*, 8(5), 254-267. <http://dx.doi.org/10.1108/13552550210448357>
- Johannisson, B., Alexanderson, O., Nowick, K., and Senneseth. (1994). Beyond anarchy and organization: Entrepreneurs in contextual networks. *Entrepreneurship and Regional Development*, 6, 329-356. <https://doi.org/10.1080/08985629400000020>
- Jones, G. R., and George, J. M. (2008). *Essentials of contemporary management*. 3rd ed. New York: McGraw-Hill Irwin
- Jones, O., and Jayawarna, D. (2010). Resourcing new businesses: social networks, bootstrapping and firm performance. *Venture Capital*, 12(2), 127-152.
<https://doi.org/10.1080/13691061003658886>
- Krithika, J., and Venkatachalam, B. (2014). A study on impact of subjective norms on entrepreneurial intention among the business students in Bangalore. *Journal of Business and Management*, 16(5): 48-50.
- Liñán, F., and Chen, Y. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3), 593-617. <http://dx.doi.org/10.1111/j.1540-6520.2009.00318.x>
- Machete, C. L., Reardon, T., and Mead, D. C. (1997). Promoting farm/non-farm linkages for employment of the poor in South Africa: A research agenda focused on small-scale farms and agro industry. *Development Southern Africa*, 14(3), 377-394.
<http://dx.doi.org/10.1080/03768359708439972>
- Malebana, J. (2014). Entrepreneurial intentions of South African rural university students: A test of the Theory of Planned Behaviour. *Journal of Economics and Behavioral Studies*, 6(2), 130-143. <https://doi.org/10.22610/jebs.v6i2.476>
- Maydiantoro, A., Jaya, T. M. B. S., Basri, M., Yulianti, D., Sinaga, R. M., and Arif, S. (2021). The influence of entrepreneurial attitudes, subjective norms and self-efficacy on entrepreneurial intentions. *Journal of Management Information and Decision Sciences*, 24(4S), 1-12.
- Milanov, H., and Fernhaber, S. A. (2009). The impact of early imprinting on evolution of new venture networks. *Journal of Business Venturing*, 24(1), 46-61.
<https://doi.org/10.1016/j.jbusvent.2007.11.001>
- Moolenaar, N. M., Slegers, P. J. C., and Daly, A. J. (2012). Teaming up: linking collaboration networks, collective efficacy, and student achievement. *Teaching and Teacher Education*, 28(2012), 251-262.
-

-
- Mouton, J. (2001). How to succeed in your Masters and Doctoral studies: A South African guide and resource book. Pretoria: Van Schaik.
- Mujkić, A. 2021. *Analysing barriers to entrepreneurship development in Bosnia and Herzegovina*. Available from: <https://www.undp.org/sites/g/files/zskgke326/files/migration/ba/Analysing-barriers-to-entrepreneurship-development.pdf>
- Mushtaq, H. A., Hunjra, A. I., Niazi, K., Rehman, K., and Azam, R. I. (2011). Planned behaviour entrepreneurship and intention to create a new venture among young graduates. *Management and Marketing Challenge for the Knowledge Society*, 6(3), 437-456. <http://dx.doi.org/10.2139/ssrn.1944685>
- Mustapha, M., and Selvaraju, M. (2015). Personal attributes, family influences, entrepreneurship education and entrepreneurship inclination among university students. *Kajian Malaysia*, 33(1), 155-172.
- Odumosu, A. A., Kelani, F. A., Williams, A. C., and Binuyo, A. O. 2019. Demographic variables and entrepreneurial intention for sustainable enterprise development among undergraduate students in Lagos State, Nigeria. *Journal of Business and Management*, 21(6), 54-60.
- Park, J. Y., Sung, C. S., and Im, I. (2017). Does social media use influence entrepreneurial opportunity? a review of its moderating role. *Special Issue. Sustainability of Economic Growth: Combining Technology, Market and Society*, 9(9), 1-16. <https://doi.org/10.3390/su9091593>
- Pereira, B., Figlioli, A., de Oliveira, D., and da Silva, E. (2018). Expansion and evolution of incubation programs and entrepreneurship development in incubators in the state of Goiás, Brazil. *International Journal of Innovation*, 6(1), 68-84.
- Rachmawan, A., Lizar, A. A., and Mangundjaya, W. 2015. The role of parent's influence and self-efficacy on entrepreneurial intention. *The Journal of Developing Areas*, 49(3): 417-430. <https://doi.org/10.1353/jda.2015.0157>
- Sait Dinc, M., and Budic, S. (2016). The impact of personal attitude, subjective norm, and perceived behavioural control on entrepreneurial intentions of women. *Eurasian Journal of Business and Economics*, 9(17), 23-35. <http://dx.doi.org/10.17015/ejbe.2016.017.02>
- Semrau, T., and Sigmund, S. (2012). Networking ability and the financial performance of new ventures: A mediation analysis among younger and more mature firms. *Strategic Entrepreneurship Journal*, 6(4), 335-354. <http://dx.doi.org/10.2139/ssrn.2006025>
- Shaver, K. G., and Scott, L. R. (1991). Person, process, choice: The psychology of new venture creation. *Entrepreneurship and Regional Development*, 27(2), 23-45. <http://dx.doi.org/10.1177/104225879201600204>
- Soria, K., Honores, G., and Gutierrez, J. (2016). Gender and social legitimacy of entrepreneurship: Contribution to entrepreneurial intention in university students from Chile and Colombia. *Journal of Management and Innovation*, 11(3), 67-76. <http://dx.doi.org/10.4067/S0718-27242016000300008>
-

-
- Spigel, B. (2013). Bourdieuan approaches to the geography of entrepreneurial culture. *Entrepreneurship and Regional Development*, 25(9), 804-818. <http://dx.doi.org/10.1080/08985626.2013.862974>
- Statistics South Africa (2022). *South Africa unemployment rate*. Available from: <https://tradingeconomics.com/south-africa/unemployment-rate>
- Steier, L., and Greenwood, R. (2000). Entrepreneurship and the evolution of angel financial networks. *Organization Studies*, 21(1), 163-192. <http://dx.doi.org/10.1177/0170840600211002>
- Subrahmanyam, S. (2019). Social networking for entrepreneurship. *International Journal of Commerce and Management Research*, 5(1), 117-122.
- Tanveer, M. A., Gillani, U.A., Rizvi, S., Latif, M., Maqbool, H., and Rizwan, M. (2011). Barriers for business students in becoming an entrepreneur in Pakistan. *IOSR Journal of Business and Management*, 74-88. Available from: <https://www.iosrjournals.org/iosr-jbm/papers/ndbmr-volume-1/J.pdf>
- Tunio, M. N., Jariko, M. A., Bersen, T., Shaikh, S., Mushtaque, T., and Brahmi, M. (2021). How entrepreneurship sustains barriers in the entrepreneurial process—a lesson from a developing nation. *Sustainability 2021*, 13(20), 1-17. <https://doi.org/10.3390/su132011419>
- Utami, C. W. (2017). Attitude, subjective norms, perceived behaviour, entrepreneurship education and self-efficacy towards entrepreneurial intention University student in Indonesia. *European Research Studies Journal*, Issue 2A, 2017.
- Wahyumi, N. K. S., Darmawan, K. K., and Adityasih, B. (2019). The role of entrepreneurship education and subjective norms on the intention of entrepreneurship. *Advances in Economics, Business and Management Research*, 103, 343-349.
- Westlund, H., Larson, J. P., and Olsson, A. R. (2014). Start-up and local entrepreneurial social capital in the municipalities of Sweden. *Regional Studies*, 48(6), 974-994. <http://dx.doi.org/10.1080/00343404.2013.865836>
-

SSIRC 2023-084**THE SUPPLY CHAIN FACTORS INFLUENCING HOUSING DEVELOPMENT PROCESS PERFORMANCE IN THE DEPARTMENT OF CO-OPERATIVE GOVERNANCE, HUMAN SETTLEMENTS AND TRADITIONAL AFFAIRS, NORTHERN CAPE****C.N. Adams**

University of South Africa, South Africa

O. Omoruyi

Sol Plaatje University, South Africa

ABSTRACT

Deshmukh et al. (2014), confirm that procurement operations occur at all stages of the construction process. Since the process of construction is fragmented, suppliers of resources such as manpower, materials, money, and machinery are not accessible at the correct time and in the appropriate quantity (Okafor et al., 2021). In addition, Battula et al. (2020) observed that since it is difficult to oversee every activity throughout the construction phase, the SCM process is increasingly important. In the housing and construction industries, an efficient supply chain is critical for controlling costs and completing projects on schedule. In an unpredictable economy, it is more crucial than ever for organisations to assess their supply chain strategies to avoid risk (Deshmukh et al., 2014). As such, given the importance of SCM in the construction industry, this study focuses on supply chain factors that influence housing development process performance in the department of Cooperative Governance Human Settlements and Traditional Affairs (COGHSTA), Northern Cape. A quantitative technique was applied, in which COGHSTA personnel represented the research respondents. Using the simple random sampling, a closed questionnaire was used for data collection. Data analysis was subjected to descriptive statistics and inferential statistics. Correlation and regression analysis asset the relational impact of the research variables. Results revealed that supply chain factors positively influence service delivery performance. Specifically, it was revealed that supplier innovativeness, information sharing, supplier trust, and ICT have a positive influence on the performance of an organisation through the improvement of service delivery. It was recommended that the supply chain management policy should focus on improving information sharing, adoption of ICT, as well as contracting trusted and innovative suppliers. This would result in an improvement in housing delivery performance of the organization.

KEYWORDS: supplier innovativeness, supplier trust, information sharing, service delivery performance, COGHSTA SCM

1. INTRODUCTION

Effective supply chain management (SCM) is critical to fulfilling the objectives of Cooperative Governance Human Settlements and Traditional Affairs (COGHSTA). COGHSTA SCM department must contribute to the organisation's strategic goals and objectives. However, there is

a need for management to identify critical success factors for the effective SCM. SCM has emerged as a vital issue in today's business environment, due to its significant influence on business operations (Singh & Singh, 2019). SCM has received a great deal of interest across a wide range of business industries and organisations (Singh, 2019). Mantzari (2017) notes that SCM is a business strategy that has gained widespread acceptance in recent years as customer expectations for quality, availability and speed have risen. Improved communication speeds, as well as cost savings and independent suppliers and consumer contacts, have accelerated supply chain integration (Singh & Singh, 2019). As a result of the integration and coordination of supply, demand, and relationships to meet customer needs in an effective and useful manner, SCM has witnessed the production of values. Christopher (2016) points out that SCM is a logistical control concept that originated in the manufacturing sector. As defined by Hugos (2018), SCM is a management method in which an organisation controls a global network of stockholders such as suppliers, retailers, and distributors through whom raw materials are procured, finished products are manufactured, and consumers are served. This study focuses on the COGHSTA, Northern Cape, a government arm responsible for the oversight of municipalities and housing development within the province.

In the housing and construction industries, an efficient supply chain is critical for controlling costs and completing projects on schedule. In an unpredictable economy, it is more crucial than ever for organisations to assess their supply chain strategies to avoid risk (Deshmukh et al., 2014). Protests have lately been recorded in South Africa, which appear to have been caused, amongst other things, by poor or sluggish service delivery (Mamokhere, 2020). This might be the result of a variety of issues, including a lack of competence to execute and inadequate monitoring systems to track progress (Mamokhere, 2020). Procurement practises are critical in ensuring that the performance of government entities is increasingly sought after on a worldwide scale, as a viable means of improving service delivery to communities (Hugos, 2018). The Municipal Finance Management Act (MFMA) 56 of 2003 (SA, 2003a) aims to modernise budget and financial management processes to maximise local government's capacity to supply vital goods and services to the public. The MFMA calls for the creation of SCM units in local governments. The Preferential Procurement Policy Framework Act (No. 5 of 2000) (PPPFA), which is seen as a significant step forward in the procurement reform process, applies to all public sector procurement systems in all three branches of government (Bizana et al., 2015). However, there have been reports that COGHSTA SCM practices are often marred by red tape, non-compliance with procurement practices, and corruption among other things. These issues have threatened efficient service delivery to communities in terms of housing development within the department. Therefore, to what extent are supplier innovation, information sharing, trust and ICT influencing the housing development service delivery performance in the department of Cooperative Governance Human Settlements and Traditional Affairs, Northern Cape?

2. LITERATURE REVIEW AND CONCEPTUALISATION

This section focuses on the discussion of the theoretical underpinning of the study, as well as the key concepts of the study. The key concepts are supplier innovativeness, information sharing, supplier trust, ICT, and service delivery performance.

2.1. Collaboration Theory (Gray, 1985)

This research is based on the collaboration theory, which holds that collaboration is essential for issue resolution in all sectors of the economy (Gray 1985). Collaboration refers to a shared decision-making technique aimed at sharing resources collectively — with the goal of resolving issues and difficulties that cannot be resolved otherwise. Effective collaboration is a basis for competitive advantage that attempts to improve service delivery (Pooe & Mathu 2011).

The collaboration theory is defined by five elements: “(1) the independence of stakeholders, (2) solutions to problems and other challenges are found through mutual understanding cooperation, (3) parties must contribute to decision-making, (4) parties must take responsibility for the strategy's development and (5) parties must understand the salient point of the strategic plan as it is there to provide a foundation from which they can manage and deal with” (Gray 1989:227).

This theory was chosen for this study because it is concerned with the efficient and effective interaction of parties through the mutual sharing of input resources. Furthermore, the study believes that cooperation is the foundation for information sharing, supplier trust, and buyer-supplier relationships, all of which are essential for service delivery (Pooe et al., 2015).

2.2. Supplier innovativeness

Supplier innovativeness is defined as the capacity of suppliers to create new processes or launch new goods (Espino-Rodríguez and Taha, 2022). Supplier inventiveness creates a variety of benefits for the organisation. Jermstittiparsert and Rungsisawat (2019) point out that supplier innovativeness has a favourable influence on organisational performance in terms of cost, quality, availability, adaptability, and product development. In addition, supplier innovation contributes to the advancement of businesses' product technology (Kim & Chai, 2017). The innovative capability of suppliers plays a crucial buying role in product development. Further, supplier innovativeness boosts information processing capabilities and supply chain information fit (Tarigan et al., 2020). Kim and Chai (2017) observe that organisations that have creative suppliers are better equipped to adapt to environmental changes. As such, in terms of service delivery, if the organisation is dealing with an innovative supplier who finds the best way of doing things, then service delivery is likely to improve.

2.3. Information sharing

According to Pooe et al. (2015), information is critical to the smooth operation of any organisation. Information sharing has been regarded as an organisation's lifeblood (Hugos, 2018). Kim and Chai (2017) define information sharing as the degree to which an organisation freely conveys essential and confidential information to its partners. Several researchers have focused on the concept of information sharing, emphasising its function and effect on the supply chain ecosystem (Jermstittiparsert & Rungsisawat, 2019). Information sharing has also been identified as an effective predictive element of the success of a supply chain (Susanty et al., 2018).

In this context, Poee et al. (2015), discovered that information sharing adds significantly to enhanced supplier relationships, by promoting efficient coordination and adaptability and integration of partners' information systems. Additionally, good information exchange among supply chain stakeholders has been identified as a critical antecedent factor in minimising the harmful effects of the bullwhip effect. Further, Abdullah and Musa (2014) discovered that the timely and correct exchange of strategic information can promote the elimination of unnecessary waste and expenses in a supply chain, resulting in greater profitability. Given the importance of information exchange in productive supply chains, it is a component worth investigating in the case of the performance of service delivery, particularly in this government department.

Teamwork, cooperation, collaboration, and information exchange among partners across the value chain are required for the supply chain to be efficient and successful (Singh & Singh, 2019). Involving suppliers early in the value chain, through information exchange, may help organisations understand the market, improve forecasting, cut costs, and determine lead times (Poee et al., 2015). The identification and elimination of bottlenecks are considerably aided by the exchange of timely and accurate information in a supply chain, hence improving the quality of client requirements. As such, information sharing is key to improving service delivery.

2.4. Supplier trust

One important factor in this study is supplier trust. Deshmukh et al. (2014) describes supplier trust as business partners' faith in each other's dependability and honesty. Trust has been characterised as a significant component and enabler for any transaction that requires the mutual participation and collaboration of several parties (Poee et al., 2015). Supplier trust has also attracted the attention of many researchers who have thoroughly researched its influence and importance in buyer-supplier interaction (Susanty et al., 2018). Trust among suppliers and procuring organisations has been identified as a significant predictive factor influencing suppliers' capacity to consolidate their supply chain operations (Poee et al., 2015).

Supplier trust, according to Abdullah and Musa (2014) is critical in allowing and improving an organisation's innovativeness and, as a result, its supply chain performance results. Given how important it is for trust to be incorporated into supply chains, supplier trust must be fully understood in the context of government departments.

Trust denotes a solid assurance that another organisation will try that leads to positive outcomes rather than negative outcomes for its partner's interests (Tarigan et al., 2020). In a buyer-supplier relationship, trust establishes a commitment that acts as the foundation for performing business operations together. Companies that lack trust find it difficult to engage, communicate and exchange information and expertise regularly. As such, trust between a procuring organisation and its supplier may lead to efficient service delivery in the sense that the supplier is trusted to deliver services or products that can produce the best outcome for the procuring organisation.

2.5. Information Communication and Technology

ICT is described as a family of technologies employed in the processing, storing and transmission of information, hence enabling the execution of information-related human actions. It is given and

served by both the public and the institutional and commercial sectors (Zhang et al., 2011). In the past, ICT has a favourable impact on SCM and increases SC performance. For example, ICT may boost buyer-supplier relationships by facilitating more efficient operations and shortening lead times (Zhang et al., 2011). The use of ICT in SCM is growing quickly. As businesses strive to enhance supply chain efficiency via more integration, ICT may be viewed as a significant enabler for SCM to facilitate information exchange. A survey of the literature on supply chain integration and the influence of ICT reveals that there are multiple integration dimensions and levels, as well as diverse impacts and influencing variables (Kollberg & Dreyer, 2017).

According to Singh and Singh (2019), service delivery issues in numerous domains of government are related to a lack of strategically comprehending the additional insights such as knowledge of ICT skills. According to Heyns and Luke (2012), there is a serious ICT skills deficit in South Africa, which will jeopardize and severely damage the competitiveness of South African supply chains. The lack of SCM skills and abilities in South African public procurement is a source of concern (Singh & Singh, 2019). This has been a fundamental hurdle to assuring competency and the realization of public procurement prowess. As such, ICT is one of the key SCM factors which is important in-service delivery in public organisations.

2.6. Service delivery performance

Mamokhere (2020) describes service delivery as an all-encompassing activity aimed at fostering community well-being. According to Masiya et al. (2018: 13), service delivery "... is an outcome, the scale and quality of which depends on factors such as clear and realistic policies; appropriate allocation of powers, functions, and financial resources; performance and accountability of State organs to implement policies; coordination between organs of State; public participation and involvement; and community self-reliance". Local governments are particularly affected by a lack of service delivery since they are at the front lines of service delivery.

Bizana et al. (2015) highlight that service delivery is linked to SCM. According to Ambe and Badenhorst-Weiss (2011), supply chain management is also employed in the public sector to improve the quality-of-service delivery to citizens. As a result, supply chain management is critical to ensuring continual improvement in SCM. An efficient SCM system will result in better service delivery to citizens. In this study, the performance of housing development will be assessed from a service delivery perspective.

3. METHODOLOGY AND DATA COLLECTION

Based on deductive reasoning, the research took the quantitative approach. The approach allows for the utilisation of data from a larger sample, which increases the generalisability of conclusions. Because the analytical method is based on objective means, the technique also lowers findings bias (Saunders et al., 2007). Through the simple random selection, a total of 100 closed-end questionnaire was randomly distributed amongst COGHSTA employees. Zikmund et al. (2013) argue that a sample size of 100 is sufficient for quantitative research. The research questions were measured on a 5-point Likert scale with responses (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree). Section A covers the demographic information of the respondent, such as gender, age, department, and tenure. Section B measures supplier innovativeness, which

consists of 5 items adapted from Kim and Chai (2017). Section C measures information sharing consists of 6 items adopted from Li et al. (2006). Section D measure supplier- trust which consists of 6 constructs adapted from Ketkar et al. (2012). Section E and F: measure ICT and Service delivery performance were guided and adapted from Mabanga (2018).

3.1. Data analysis

The research method employed is causal research, which is research aimed at quantifying a causal link between variables and identifying and demonstrating the direction of the relationship. Data was analysed using descriptive statistics and inferential statistics (Blumberg et al., 2014). Exploratory factor analysis (EFA) assess the validity value and Cronbach's Alpha assess the reliability of the research constructs. Statistical Package for Social Sciences (SPSS) version 27 was used for data analysis.

4. RESULTS AND DISCUSSION

Out of the 100 questionnaires that were distributed, 88 responses were valid for the research. The male respondents comprised 54% of the sample, whereas females comprised 46% of the sample and about 30 to 40 years age group, comprising 32.9% were dominant. Based on experience, most respondents (36.4%) had worked for the organisation for 5 to 10 years, while about 15.9% to 17% respectively had 11 to more than 20 years working with the organisation. Majority of the respondents (26.1%) were from the procurement department, followed by 20.5% who were from the finance department who either had honours degrees or diplomas (45.5%), followed by 39.8% who had masters' degrees. Table 1 depict the descriptive, reliability and validity of the research constructs to ensure internal consistency.

Table 1: Descriptive, reliability and validity results

| Research constructs | Indicators | Measurement | Descriptive statistics | | Reliability statistics | Validity statistics |
|------------------------------|------------|--|------------------------|------|------------------------|---------------------|
| | | | Mean (\bar{x}) | SD | Cronbach's alpha | Factor loading |
| Service Delivery Performance | SD1 | Our department has a good reputation when it comes to housing development in Northern Cape | 3.66 | .843 | 0.712 | .050 |
| | SD2 | The department quickly responds to service delivery housing development-related issues raised by citizens | 4.02 | .777 | | .744 |
| | SD3 | Residents always participate in issues of housing development programs that affect them | 3.78 | .940 | | .789 |
| | SD4 | The department rarely experiences inconveniences in terms of housing development projects in the province | 3.85 | .771 | | .826 |
| | SD5 | The department is well-equipped to deal with issues of service delivery | 4.18 | .674 | | .694 |
| | SD6 | The department has not faced protests poor housing development service delivery from local community members | 4.01 | .686 | | .724 |

| | | | | | | |
|--------------------------|------|--|------|-------|-------|------|
| Supplier Innovative ness | SI1 | In new product and service introductions, our suppliers are often first-to-market | 3.72 | .994 | 0.734 | .761 |
| | SI2 | Our supplier has introduced more creative and useful products and services in the past five years, than its competitor | 3.18 | 1.209 | | .637 |
| | SI3 | Our suppliers aggressively market their product innovativeness | 3.17 | 1.177 | | .655 |
| | SI4 | In new product and service introduction, our suppliers are at the leading edge of technology. | 3.60 | .989 | | .848 |
| | SI5 | Our suppliers constantly improving their manufacturing processes | 3.61 | 1.022 | | .759 |
| | SI6 | When our suppliers cannot solve a problem using conventional methods, they improvise with new methods | 3.62 | 1.216 | | .765 |
| Supplier Trust | ST1 | The relationship between our department and its major suppliers is characterized by high levels of trust | 3.93 | .740 | 0.781 | .856 |
| | ST2 | We generally trust our major suppliers to stay within the terms of the contract | 3.27 | 1.047 | | .559 |
| | ST3 | Our major suppliers do not try to alter the facts to get concessions from us | 3.44 | 1.267 | | .415 |
| | ST4 | We trust that our suppliers will deliver goods and services on time | 4.31 | .963 | | .870 |
| | ST5 | Our suppliers try to alter the facts to get concessions from us | 4.39 | .928 | | .870 |
| | ST6 | We trust that our suppliers will deliver high quality most of the time | 4.28 | .830 | | .849 |
| Information Sharing | IS1 | Our department informs our suppliers in advance of changing needs | 3.73 | .867 | 0.783 | .771 |
| | IS2 | Our suppliers share proprietary information with us | 3.64 | .805 | | .777 |
| | IS3 | Our suppliers keep us fully informed about issues that affect our business | 3.48 | .884 | | .408 |
| | IS4 | Our suppliers share the knowledge of core business processes with us | 3.75 | .887 | | .429 |
| | IS5 | We and our suppliers exchange information that is useful in business planning | 4.02 | .742 | | .503 |
| ICT | ICT1 | ICT skills are important in enhancing supply chain performance at my organisation | 4.26 | .928 | 0.715 | .408 |
| | ICT2 | Our department leverages ICT skills and intelligence in its supply chain activities | 3.81 | .828 | | .703 |
| | ICT3 | Our department uses ICT tools in its supply chain activities | 4.07 | .740 | | .801 |
| | ICT4 | Information technology is effective in supply chain performance. | 3.91 | .853 | | .570 |
| | ICT5 | Information technology is effective in the integrity of the supply chain. | 3.97 | .734 | | .504 |

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 8 iterations. KMO=Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity (Approx. Chi-Square = 1343.553; df = 378; Sig. .000; 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

The result shows that the reliability and validity results of the research constructs are above 0.7 and therefore acceptable Field (2018). Although factor analysis indicated some items that were below 0.5, Field (2018) concurs that items with factor loadings greater than 0.4 are retained. In

addition, the KMO measure indicated 0.714, which is above 0.5. The fact that each measurement items loaded highly on components indicate the presence of convergent validity.

4.1. Correlation analysis

To analyse the correlation between the variables, the Pearson correlation coefficient was utilized. The correlation coefficient is in the range of -1 to +1, with -1 indicating perfect negative correlation and + 1 indicating perfect positive correlation. Correlation coefficients of 0.4 or less are regarded as weak, 0.4 to 0.7 are considered medium, and greater than 0.7 are considered strong. The correlations between variables are shown in Table 2. The variables’ total scores were utilized. The total scores were calculated by averaging the values for each measure.

Table 2: Pearson correlation

| Correlations | | | | | |
|--|---------------------|------------------|-------------------------|---------------------|----------------|
| | | Service Delivery | Supplier Innovativeness | Information Sharing | Supplier Trust |
| Service Delivery | Pearson Correlation | 1 | | | |
| | Sig. (2-tailed) | | | | |
| | N | 88 | | | |
| Supplier Innovativeness | Pearson Correlation | .431** | 1 | | |
| | Sig. (2-tailed) | .000 | | | |
| | N | 88 | 88 | | |
| Information Sharing | Pearson Correlation | .607** | .316** | 1 | |
| | Sig. (2-tailed) | .000 | .003 | | |
| | N | 88 | 88 | 88 | |
| Supplier Trust | Pearson Correlation | .589** | .289** | .549** | 1 |
| | Sig. (2-tailed) | .000 | .006 | .000 | |
| | N | 88 | 88 | 88 | 88 |
| ICT | Pearson Correlation | .709** | .280** | .442** | .408** |
| | Sig. (2-tailed) | .000 | .009 | .000 | .000 |
| | N | 85 | 85 | 85 | 85 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | |

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 8 iterations. KMO=Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity (Approx. Chi-Square =

1343.553; df = 378; Sig. .000; 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

Table 2 highlighted the correlation coefficients between service delivery performance and the supply chain factors. There is a significant positive relationship between supplier innovativeness and service delivery performance ($r= 0.43, p<.001$). However, the result shows that the correlation between supplier innovativeness and service delivery is medium. Further, there is a positive and medium relationship between information sharing and service delivery performance ($r= 0.61, p<.001$). Results also show that there is a significant strong positive relationship between service delivery performance and ICT ($r=0.71, p<.001$). Therefore, service delivery performance positively correlates with supply chain factors. Regression analysis was conducted to assess the influence of each supply chain factor on service delivery performance.

4.6.2 Regression analysis

A multiple linear regression model was estimated, with service delivery performance as the dependent variable, and the supply chain factor as the predictor variable. The objective is to determine the percentage of variation in service delivery performance that is explained by each of the supply chain factors.

Table 3: Regression coefficients

| Coefficients ^a | | | | | | |
|---|-------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.323 | .367 | | -.881 | .381 |
| | Supplier Innovativeness | .210 | .083 | .171 | 2.522 | .014 |
| | Information Sharing | .219 | .080 | .219 | 2.746 | .007 |
| | Supplier Trust | .279 | .092 | .237 | 3.041 | .003 |
| | ICT | .431 | .067 | .468 | 6.411 | .000 |
| a. Dependent Variable: Service Delivery | | | | | | |

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 8 iterations. KMO=Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity (Approx. Chi-Square = 1343.553; df = 378; Sig. .000; 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

From Table 3, the coefficient of supplier innovativeness is positive and statistically significant ($\beta= 0.171, p<.05$). The result implies that supplier innovativeness positively influences service delivery performance. Thus, an improvement in supplier innovativeness improves the performance

of service delivery for the organisation. This result is supported by Oke et al. (2013) who found that the innovativeness of suppliers stimulates focal businesses' product approaches, and strategic partnerships with supply chain partners improve focal firms' innovation capabilities, resulting in product innovation plans. Further, Kim and Chai (2017) also found that organisations that have innovative suppliers are better equipped to adapt to environmental changes. As such, in terms of service delivery, if the organisation is dealing with an innovative supplier who finds the best way of doing things, then service delivery is likely to improve.

Results also show that the coefficient of information sharing is positive and statistically significant ($\beta = 0.219$, $p < .01$). This implies that information sharing positively influences service delivery performance. Thus, improvement in information sharing among supply chain partners is associated with an improvement in the performance of the organisation in terms of service delivery. This result is supported by Kembro et al. (2017) who found that a culture of information sharing has a significant positive influence on supply chain partnerships and increases operational performance and consumer satisfaction. This is also in line with Poee et al. (2015), who found that information sharing adds significantly to enhanced supplier relationships by promoting efficient coordination and adaptability, and integration of partners' information systems thereby improving organisational performance.

Further, the coefficient of supplier trust is positive and statistically significant ($\beta = 0.237$, $p < .01$). This suggests that supplier trust positively influences service delivery performance. Thus, the more trustworthy are the suppliers, the higher the service delivery performance, holding other factors constant. This result is consistent with Tarigan et al. (2020) who found that trust between supply chain partners is a commitment that acts as the foundation for performing business operations together. Thus, organisations that lack trust find it difficult to engage, communicate, and exchange information and expertise regularly. As such, trust between a procuring organisation and its supplier may lead to efficient service delivery in the sense that the supplier is trusted to deliver services or products that can produce the best outcome for the procuring organisation.

Lastly, the coefficient of ICT is positive and statistically significant ($\beta = 0.468$, $p < .001$). This suggests that information communication technology positively influences service delivery performance. Thus, effective utilization of ICT systems in the supply chain improves service delivery performance. This result is supported by Zhang et al. (2011) who found that ICT has a positive impact on supply chain management processes and increases supply chain performance. For example, ICT may boost buyer-supplier relationships by facilitating more efficient operations and shortening lead times (Zhang et al., 2011).

5. CONCLUSION

This study aimed to explore the supply chain factors and their influence on service delivery performance at COGHSTA, Northern Cape. A final sample of 88 employees of COGHSTA, Northern Cape was utilized. Further, the study employed a quantitative research methodology, and correlation and regression analyses were used to analyse data. Results revealed that supply chain factors positively influence service delivery performance. Specifically, it was revealed that

supplier innovativeness, information sharing, supplier trust and ICT have a positive influence on the performance of an organisation, through the improvement of service delivery.

Therefore, it was recommended that the supply chain management policy should focus on improving information sharing and the adoption of ICT, as well as contracting trusted and innovative suppliers. This would result in an improvement in the housing delivery performance of the organisation.

6. RECOMMENDATIONS

As a key component of innovativeness, management should encourage suppliers to develop an innovative culture and learning behaviours that generate new ideas and adaptability to new technologies, to capture new information and opportunities. External suppliers' enhanced flexibility to adapt to COGHSTA's needs means they have more resources to cope with increased customer integration, allowing them to better understand the needs of the communities they serve. To improve supply chain performance, management should consider supplier integration as a policy for the organisation. For the policy to be successful, trust must be established from the start of the engagement with suppliers. Building trust necessitates management focusing on social collaboration, communication, talents, and skills-based trust, as well as the supplier's personality traits. Procurement managers should take the lead and utilize ICT in the supplier selection process and the negotiation of all areas of inventory contracts. ICT tools aid in the seamless running of the supply chain. Organisations that do not use ICT tools in their supply chain have issues with workload, long lead times, responsiveness, quality consistency and efficiency.

7. IMPLICATIONS OF THE STUDY

Managerial implications

Apart from contributing significantly to the body of knowledge in the field of SCM, the management of COGHSTA will have a better understanding of the supply chain factors that are significant in enhancing the performance of their housing construction projects. Understanding these factors will assist in enhancing community service delivery. Therefore, in this case, management should focus on improving information sharing and the adoption of ICT, as well as contracting trusted and innovative suppliers. This would result in improvement in the housing delivery performance of the organisation. Additionally, this research may help other housing development local governments determine which supply chain factors support, or hinder, housing construction success.

Limitations of the study

This study focused on analysing supply chain factors affecting service delivery performance utilizing a sample from a single organisation, COGHSTA, Northern Cape. Though generalisations can be made about the organisation, the results may not apply to other organisations in the public sector, and this is a limitation. Future research could conduct the same study employing a larger sample from public sector organisations across South Africa. This would improve the generalisation of results to the South African context.

Further, this study was a cross-sectional study, focusing on analysing the phenomenon at a particular point in time. However, the problem with cross-sectional studies is that they fail to consider changes that take place over time: for example, in this case, the developments in ICT and the changes in buyer-supplier relationships, over time. Further, the same study could be conducted utilizing longitudinal research designs which consider changes over time. This could improve the validity of the results.

REFERENCES

- Abdullah, Z. and Musa, R., 2014. The effect of trust and information sharing on relationship commitment in supply chain management. *Procedia-Social and Behavioural Sciences*, 130, pp.266-272.
- Ambe, I.M. and Badenhorst-Weiss, J.A., 2011. An examination of supply chain management in the South African Public Sector. In *20th Annual IPSESA 2011 Conference* (pp. 10-14).
- Ambe, I.M. and Badenhorst-Weiss, J.A., 2012. Supply chain management challenges in the South African public sector. *African Journal of Business Management*, 6(44), pp.11003-11014.
- Bizana, N., Naude, M.J. and Ambe, I.M., 2015. Supply chain management as a contributing factor to local government service delivery in South Africa. *Journal of Contemporary Management*, 12(1), pp.664-683.
- Blumberg, B., Cooper, D. and Schindler, P., 2014. *EBOOK: Business Research Methods*. McGraw Hill.
- Deshmukh, P.S., More, A.B. and Chavan, S.A., 2014. Supply chain management in residential construction sector. *Int J Eng Adv Tech*, 4(2), pp.87-90.
- Espino-Rodríguez, T.F. and Taha, M.G., 2022. Supplier innovativeness in supply chain integration and sustainable performance in the hotel industry. *International Journal of Hospitality Management*, 100, p.103103.
- Field, A., 2018. *Discovering statistics using IBM SPSS statistics 5th ed.* Sage.
- Gray, B., 1985. Conditions facilitating interorganisational collaboration. *Human relations*, 38(10), pp.911-936.
- Gray, B., 1989. *Collaborating: Finding common ground for multiparty problems*, Jossey-Bass, San Francisco, CA.
- Hugos, M.H., 2018. *Essentials of supply chain management*. John Wiley & Sons.
- Jermisittiparsert, K. and Rungtornsupavan, S., 2019. Impact strategic sourcing, supplier innovativeness, and information sharing on supply chain agility. *International Journal of Innovation, Creativity and Change*, 5(2), pp.397-415.
- Kim, M. and Chai, S., 2017. The impact of supplier innovativeness, information sharing and strategic sourcing on improving supply chain agility: Global supply chain perspective. *International Journal of Production Economics*, 187, pp.42-52.
- Kollberg, M. and Dreyer, H., 2017. Exploring the impact of ICT on integration in supply chain control: a research model. *Department of Production and Quality Engineering, Norwegian University of Science and Technology, Norway*, 5(15), pp.285-294.

- Mamokhere, J., 2020. An assessment of reasons behind service delivery protests: A case of Greater Tzaneen Municipality. *Journal of Public Affairs*, 20(2), p.e2049.
- Masiya, T., Davids, Y.D. and Mangai, M.S., 2019. Assessing service delivery: Public perception of municipal service delivery in South Africa.
- Pooe, D., Mafini, C. and Loury-Okoumba, V.W., 2015. The influence of information sharing, supplier trust and supplier synergy on supplier performance: The case of small and medium enterprises. *Journal of Transport and Supply Chain Management*, 9(1), pp.1-11.
- Saunders, M.N., Lewis, P., Thornhill, A. and Bristow, A., 2015. Understanding research philosophy and approaches to theory development.
- Susanty, A., Sirait, N.M. and Bakhtiar, A., 2018. The relationship between information sharing, informal contracts and trust on performance of supply chain management in the SMEs of batik. *Measuring Business Excellence*.
- Tarigan, Z.J.H., Siagian, H., Panjaitan, T.W.S. and Sutjianto, A., 2020. *The Effect of Supplier Trust, Supplier Innovation, and Buyer-Supplier Relationship in Enhancing the Supplier Performance on the Death Service Companies in Surabaya, Indonesia* (Doctoral dissertation, KnE Life Sciences).
- Tarigan, Z.J.H., Siagian, H., Panjaitan, T.W.S. and Sutjianto, A., 2020. *The Effect of Supplier Trust, Supplier Innovation, and Buyer-Supplier Relationship in Enhancing the Supplier Performance on the Death Service Companies in Surabaya, Indonesia* (Doctoral dissertation, KnE Life Sciences).
- Zhang, X., van Donk, D.P. and van Der Vaart, T., 2011. Does ICT influence supply chain management and performance? A review of survey-based research. *International Journal of Operations & Production Management*.

SSIRC 2023-087**A TWITTER ANALYSIS OF THE STATE OF THE NATION ADDRESS OF 2023****A.G. van der Vyver**

Independent Researcher, South Africa

J. Pretorius

North-West University, South Africa

ABSTRACT

On the evening of 9 February 2023, South African president, Cyril Ramaphosa delivered the State of the Nation address. He touched on all the expected points: the power crisis, economic growth, poverty, and law enforcement, ending with a promise of a better life for all. The stand-out announcements were the declaration of the energy crisis as a state of disaster and the addition of a Minister of Electricity to the Cabinet. He also confirmed the continuation of the Social Relief of Distress (SRD) grant. The e-publication, BusinessTech, commented that SONA “ultimately painted a bleak picture for the state of the nation, with a hopeful message that the country will rise up to meet the challenges”. The researchers made use of Atlas Ti to analyse 427 unique tweets related SONA (State of the Nation address). The tweets that made up the sample frame were posted between 7 and 19 February 2023 on 10 hashtags that dealt with the topic. In the end, 128 tweets were included in the purposive sample. The researchers opted for a mixed methods research model. They started by conducting a qualitative thematic and stakeholder analysis on the tweets. This was followed by implementing automated sentiment analysis. By performing an additional level of analysis on Qualitative Coding (QC) with Sentiment Analysis (SA), the researchers gained additional insight into the emotional tone of statements. Although the SONA address rendered severe criticism from opposing political parties, interest groups, and citizen journalists on Twitter, the sentiment analysis showed a more balanced response pattern. Although a fair amount of negativity was reflected towards some of the initiatives Ramaphosa put forward, neutral sentiments were recorded in most of the tweets that were analysed. This was the result of the large number of tweets that were posted by members of the mainstream media.

KEYWORDS: SONA, Twitter, AtlasTi, thematic, stakeholder, sentiment analysis**1. INTRODUCTION**

President Cyril Ramaphosa presented his seventh State of the Nation Address on 9 February in the Cape Town City Hall “in the midst of a crippling energy crisis, a slowing economy, a pandemic of violence against women and children, and rising unemployment.” According to Pillay (2023) the ‘The State of the Nation address, or more commonly referred to as Sona (sic), is a joint sitting of the two Houses of Parliament and one of the rare occasions that brings together the three arms of the state under one roof.”

Before the presentation of the address, members of the EFF, predictably, resorted to disruptive

tactics. After several malfunctional attempts to declare point-of-order, they stormed the stage to prevent the President from delivering the address (Timeslive 2023).

In this year's address, President Ramaphosa announced that a State of Disaster will commence with immediate effect regarding the ongoing energy crisis that results in daily loadshedding sessions. A further measure to deal with the crisis is the appointment of a Minister of Electricity in the Presidency.

The e-publication, BusinessTech, commented that SONA “ultimately painted a bleak picture for the state of the nation, with a hopeful message that the country will rise up to meet the challenges.”

2. LITERATURE REVIEW

2.1 SONA

The State of the Nation Address, at the annual opening of Parliament, is an address to the nation by the President of the Republic of South Africa. The President addresses a joint sitting of the two houses of Parliament, the National Assembly (NA) and the National Council of Provinces (NCOP) (SA Government 2023).

2.2 Citizen Participation and Political Communication in a Digital World

Hermes (2006) postulates that the Internet seamlessly provides rich information sources to stimulate political discourse. It also triggered a tsunami of Information and Communication Technologies (ICT) that served as discussion platforms for governance, relationships between citizens, political activists, and the media. Hermes (2006) pointed out that “ICTs do not necessarily produce new citizens but that they do provide for new and important citizenship practices.” These words proved to be prophetic as Twitter was launched in the same year, gaining widespread support. Nowadays, “(p)oliticians, voters and members of civic society now commonly make use of the Internet, blogs, mainstream SNS (Facebook, YouTube, Twitter, Pinterest...) and dedicated specialist tools (activist management platforms or specialised social networks) in relation with their political activity” (Frame 2016, p.1).

The pendulum has also swung in terms of the credibility of the mainstream media. Where the mainstream media is earmarked by strict and formal levels of gatekeeping, the alternative news media, which includes the large cohort of citizen journalists, tend to ignore journalistic norms of objectivity. Kim and Johnson (2009) found that “(p)olitically attentive online users find alternative news media as more credible and more important sources for political information.”

2.3 Twitter

Twitter is an online social networking and micro-blogging service, which allows users to write short messages or tweets as text and to send these to the system. When Twitter was launched, it had a limit of 140 characters per tweet. On 7 November 2017 Twitter increased the number of characters allowed per tweet to 280 (Collins 2017).

Nguyen (2011:3) pointed out that micro-blogging platforms such as Twitter “generate numerous streams of public opinion, encapsulated in various hashtags. They offer the researchers access to a wide array of opinions of various stake holders on related themes.”

As the chapter will argue, these spaces of expression are often used for the purposes of polemic; that is, to formulate political criticism, on at least three levels: firstly, to destabilise a political opponent for tactical and ideological reasons; secondly, to criticise as a whole the politicians and the partisans in play; and thirdly, to associate other players in the electoral game with this criticism of politics - the media and journalists. Everything is done through games of posturing and by exchanging generally aggressive and radical messages which often have common characteristics: irony, ridiculing personal attacks, sarcastic photomontages, and arguments undermining the legitimacy or credibility of those targeted.

Mercier (2016, p.139) refer to Twitter as a space of expression. He added that these platforms are often used “to formulate political criticism, on at least three levels: firstly, to destabilise a political opponent for tactical and ideological reasons; secondly, to criticise as a whole the politicians and the partisans in play; and thirdly, to associate other players in the electoral game with this criticism of politics - the media and journalists.” An array of methods that include “games of posturing, as well as exchanging generally aggressive and radical messages are implemented during such Twitter narratives. (Mercier 2016, p.139).

3. METHODOLOGY

3.1 Case study

The researchers followed the case study approach with the Twitter analysis of the SONA presentation and follow up debate. Stake (2005) and Yin (2009) pointed out that “the case study approach allows for a holistic understanding of a phenomenon within real-life contexts from the perspective of those involved” (Boblin et al., 2013, p. 2). This rationale suggests thematic and stakeholder analyses as suitable methodologies to explore a phenomenon. Stake (2005) posited the case study approach as the ideal methodology to grasp the intricacies of a phenomenon.

3.2 Data collection

The researchers made use of Atlas Ti to analyse 427 tweets related to the debacle. The tweets that made up the sample frame were all in English. They were posted between 7 and 19 February 2023, using ten specific hashtags. Subsequently, the researchers conducted both thematic and stakeholder analyses on the tweets.

3.3 Sampling

The tweets were purposefully sampled, acknowledging subjectivities in both data collection, and analysis.

3.4 Data analysis and coding

3.4.1 Combining data analysis and coding.

The researchers combined the coding and analysis of the data when working through the tweets. Combining this practice with data collection give the researcher more flexibility to adjust data

collection (Eisenhardt, 1989, p.439). In the case of Twitter research this means that more hashtags can be added to the sample population if there are new developments in the case.

3.4.2 Data analysis

The data analysis process involved reducing the data to sharpen, sort, focus, discard, and reorganise it (Miles & Huberman; 1994). In this case tweets were purposefully coded. The analysis was conducted sequentially with mixed methods: first a qualitative analysis focusing on themes and stakeholders, and lastly, the implementation of automated sentiment analysis. Not all the data was useful to achieving the objectives of the study, however, all unique tweets were systematically considered.

3.4.3 Thematic analysis

Thematic analysis can, according to Braun and Clark (2006:5) be applied across a range of theoretical and epistemological approaches. They pointed out that “(t)hrough its theoretical freedom, thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex account of data.” Thematic analysis is a method for identifying and analysing themes within data. It organises and explains the data set in rich detail, thereby linking it to the various dimensions of the research topic (Boyatzis, 1998).


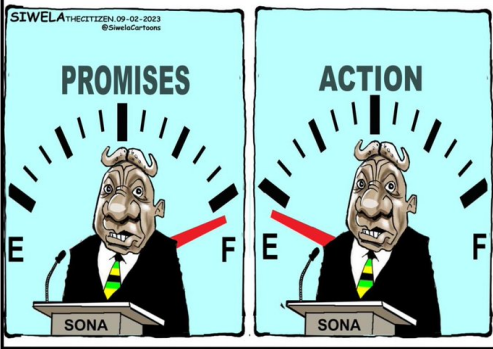
The following themes were detected during the thematic analysis:


Table 1. Themes detected on tweets on the State of the Nation 2023.

| Themes: | Tweets (verbatim): |
|-----------------|---|
| 1. Attitude: | It shows the finger at struggling South Africans to engage in all this pomp and ceremony while flashing expensive clothes on the way to the people’s parliament |
| 2. Expectations | Every country is changing. History is being made daily. Question: is it changing for the better or worse. I would want to see development, characterised by sustainable and inclusive growth, leading to poverty and inequality reduction. My expectations is for Media Outlets to ask @PresidencyZA how far is he with implementation of promises made last year, Hold Executives to account. What a prestigious event that cost lot of money, the government said they don't have, where the president will be blabbing statements that no one will hold him to account when he doesn't deliver. There's nothing new we are going to hear from this SONA but added challenges on top of the previous years that have not been dealt with. |

| Themes: | Tweets (verbatim): |
|-------------------|--|
| 3. Disruptions | <p>Disruptions erupted in the City Hall in Cape Town when President Cyril Ramaphosa attempted to deliver his #SONA23, Thursday @CyrilRamaphosa had barely made it through the first sentence when @EFFSouthAfrica leader @Julius_S_Malema rose on a point of order.</p> <p>BREAKING NEWS] EFF members storm the podium at the State of the Nation Address. EFF MPs have also been expelled for disrupting President Cyril Ramaphosa's #SONA2023</p> |
| 4. Legitimacy | <p>EFF leader, Julius Malema objects to having President Cyril Ramaphosa address parliament, arguing that he has no legitimacy to do so after taking the house to court over the Phala Phala report. The debate between Malema & Speaker Nosiviwe Mapisa-Ngqakula goes on.</p> |
| 5. Criticism | <p>The State of the nation address is a true reflection of the state of our country, a MESS.</p> |
| 6. Empty promises | <p>#SONA2023 might be trending, but there is nothing to be excited about. Enough of the empty promises and hollow words!</p> |
| 7. Leadership | <p>https://theafrican.co.za/politics/no-quick-fix-for-a-nation-in-distress-cb2b56bd-5c58-44e5-a360-7b0d22be78c0/... The great expectations that some Cyril Ramaphosa fanciers had of a magical renaissance, renewal and restoration under his Presidency faded fast. Cyril's catastrophic leadership has been impossible to hide or gloss over #SONA2023 #PhalaPhalaFarmGatesona</p> |
| 8. Call to action | <p>i) I think all of SA should get together at SONA 2023 and show the world how tired we are of the ANC running our nation into the ground We need to fight now for our children's futures and what's left of ours.</p> <p>ii) State (sic) Of the Nation Address It time to Fight these Apartheid Government of Ramaphosa.....no war has been won with Words Resume 1994</p> |
| 9. Content | <p>Cyril Ramaphosa is a motivational speaker; he has nothing to offer but motivation State of the nation Address</p> |

| Themes: | Tweets (verbatim): |
|-------------------------|--|
| 10. State of Disaster | <ul style="list-style-type: none"> i) SONA: state of disaster declared over SA's energy crisis A National State of Disaster under the guise of dealing with the load shedding crisis it created, will similarly empower the ANC to abuse procurement processes and issue nonsensical regulations that have nothing to do with the electricity crisis. ii) Official Declaration of State Looting without following legislative processes. We have been in this movie before - COVID looting being brought back again. Energy crisis created to present an opportunity for the Cadres. |
| 11. Executive overreach | <p>What we witnessed tonight at #SONA2023, is a clear example of executive overreach & will open SA up looting just as we witnessed during COVID-19. We will never support a a State of Disaster that gives the Presidency & the executive centralised power to abuse state resources.</p> |
| 12. Credibility | <p>Ramaphosa is a pathetic liar when he took office, he said he would reduce the number of Ministers, where will the salary of Electricity Minister come from, Ramaphosa must be removed before we find ourselves with a Minister of potholes and sewers. #StateofTheNationAddress2023</p> |
| 13. Narratives | <ul style="list-style-type: none"> i) Target of R2-trillion investment by 2028 ii) Brett Ben Raphael <p>I'll be long gone and buried by then to hear the excuses they'll make in 2028. "We inherited a broken country." - President Cyril Ramaphosa.</p> <ul style="list-style-type: none"> iii) Ganymede <p>Is this really the hill you wanna defend to your last breath?</p> |
| 14. Analysis | <ul style="list-style-type: none"> i) Analyst says SA has regressed by 20 years. ii) Onyi Nwanweri analysing SA State of the Nation Address with Newsroom this morning. Where is San (sic) analysts who knows exactly the struggles we go through in our country. This is frustrating. |
| 15. Disappointment | <ul style="list-style-type: none"> i) Very disappointed with the lack of action on protecting whistleblowers. Ramaphosa said the same thing he said last year. They're still working on fixing the legislation. But the status quo remains for now. SA is a dangerous place for whistleblowers. |

| Themes: | Tweets (verbatim): |
|--------------|--|
| | <p>ii) Rising feed costs, failing #infrastructure, and skyrocketing #electricity prices threaten the future of South Africa's #poultry industry. President #Ramaphosa missed a crucial opportunity to offer relief in his #SONA2023 address.</p> <p>iii) SONA was disappointing for GBV activists. Action Society's @IanCameron23 said President @CyrilRamaphosa spoke about GBV as if it was an afterthought on Thursday night.</p> <p>iv) NPPC disappointed by Ramaphosa's silence on housing delivery</p> |
| 16. Jest | <p>i) Themi @nomataz Every time @PresidencyZA makes promises just to take a spoon of Pik'ante it will numb the pain away!! #SONA2023</p>  |
| 17. Cartoons |  |

| Themes: | Tweets (verbatim): |
|--------------------------------------|---|
| |  |
| <p>18. SONA parliamentary debate</p> | <p>i) “President Ramaphosa is more guilty than Mr Zuma’s nine wasted years. The Thuma Mina was an empty slogan and Idealism of new dawn turned to be a false dawn” - Leader of Official Opposition Mr John Steenhuisen during the debate on #SONA2023. Kailene Pillay@kailenepillay</p> <p>ii) IOL:First on the podium is ANC Chief Whip Pemmy Majodina who will have the opportunity to address the Sitting for 14 mins. She says the President has placed the peoples interests at the centre of his #SONA2023 @IOL</p> |

3.4.4 Stakeholder analysis

Stakeholders are persons or entities with legitimate interests in procedural and/or substantive aspects of the issue at hand (Donaldson & Preston 1995:67). A wide array of diverse stakeholders has access to social media. They can communicate to each other or in general. Goodman (2017:45) listed the following potential stakeholders: employees, customers or consumers, shareholders, communities, business partners, and regulatory bodies.

The following stakeholders participated in the Twitter discourse:

Table 2: Stakeholder participation:

| Stakeholders: | Tweets (verbatim): |
|-----------------------------|--|
| SA Government | |
| Public service announcement | Join President Cyril Ramaphosa as he delivers the State of the Nation Address this evening at 19:00 in Cape Town. Tune in to |

| Stakeholders: | Tweets (verbatim): |
|-------------------------------------|--|
| Human Settlements @The_DHS | major Television News channels and @GovernmentZA social media platforms. #SONA2023 #LeaveNoOneBehind pic.twitter.com/Sygp4cOjw |
| GCIS@Ekurhuleni @GCIS_Ekurhuleni | During his State of the Nation Address, the President will also highlight what has been achieved since his last address in 2022. He will also reflect on the progress made in implementing the Economic Reconstruction and Recovery Plan (ERRP). |
| The President | [Blog] President Ramaphosa: "As we announced in #SONA2023, we are about to take yet another important step forward by making the Investigating Directorate a permanent entity within the NPA" |
| Victoria Grayson @bankablekid | The state of the nation is catastrophic @CyrilRamaphosa, don't stand there and annoy us with your well-known delusions of grandeur talking abt some bloody new dawn |
| Political parties | |
| Democratic Alliance (DA) | Ahead of President Cyril Ramaphosa's #SONA2023. "In every community I visit, rolling blackouts and high cost of living has become the theme of our conversations. People feel furious and powerless at the same time." – John Steenhuisen. 19m: "I'm not hopeful that the President is going to give us implementable tangible solutions." - DA Chief Whip, Siviwe Gwarube, |
| EFF | We have a big problem, we think that South Africa has allowed Cyril Ramaphosa to utilise SONA as a reset button, where he thinks that every SONA is a new opportunity for his term to begin anew. The EFF National Spokesperson @Sinawo_Thambo |
| African Transformation Movement | @ATMovement_SA: Ramaphosa's SONA was hollow and underwhelming, says the ATM |
| Action SA | "President Cyril Ramaphosa does not qualify to address us as a nation because he is a president who faces serious criminal challenges." |
| Media | |
| News24 | #SONA2023 Listen to News24 editor-in-chief @AdriaanBasson and assistant editor of politics and opinions @QaanitahHunter in |

| Stakeholders: | Tweets (verbatim): |
|---------------------|---|
| | conversation as they set the scene ahead of the proceedings. |
| IOL | SONA 2023: Ramaphosa could have simply sent South Africa a WhatsApp voice note, says UDM Youth |
| African News Agency | Security forces forcibly remove members of the EFF from the House after they rushed the stage where President Cyril Ramaphosa was being prevented from delivering his 2023 State of the Nation Address. #SONA2023 Video |
| eNCA | SONA 2023: Relief for small businesses |
| Daily Maverick | President Cyril Ramaphosa delivered his seventh State of the Nation Address on Thursday. The State of Disaster will enable us to provide practical measures that we need to take to support businesses in the food production, storage, and retail supply ... |
| Carte Blanche | <p>@carteblanchetv</p> <p>For the majority of South Africans, the annual State of the Nation Address merely consists of more promises. Nonqaba Melani is just one of many forced to still use the bucket system.</p> |
| Farmer's Weekly | <p>@FarmersWeeklySA</p> <p>Agricultural role players are unmoved by the commitments made by President Cyril Ramaphosa during his State of the Nation Address on Thursday.</p> |
| Interest groups | |
| Corruption Watch | #SONA2023 We expect to hear about how #whistleblowers are going to be physically protected, how they are going to be financially rewarded, and how they are going to be legally protected. We need to hear that there is a hard deadline for the required legislative reform. |
| Action SA | Ian Cameron Going live on @eNCA shortly regarding AKA's hit/murder, violent crime in SA and the president's poor response to crime at #SONA2023. |

| Stakeholders: | Tweets (verbatim): |
|----------------------|---|
| Universities | University of the Free State: "South Africans cannot be blamed when the idea of sitting through an address covering more of the same with no expectation of positive change is something we are not prepared to do," writes Dr Ina Gouws, Senior Lecturer: Governance and Political Transformation. |
| Research bodies | Institute for Pan-African Thought and Conversation: "Appointing Minister of Electricity is nothing more than performative politics that are grounded in the need to be seen to be doing something," |
| Activists | |
| Yusuf Abramjee | Fed up with the usual yearly false hopes and empty promises? Get the REAL State of the Nation, calling out the organised crime gangs who are looting SA of R100 billion a year. |
| Kim Heller | Media and Communications consultant. No political affiliation but with strong ties to RET move |
| Max du Preez | https://theafrican.co.za/politics/no-quick-fix-for-a-nation-in-distress-cb2b56bd-5c58-44e5-a360-7b0d22be78c0/... The great expectations that some Cyril Ramaphosa fanciers had of a magical renaissance, renewal and restoration under his Presidency faded fast. Cyril's catastrophic leadership has been impossible to hide or gloss over #SONA2023 #PhalaPhalaFarmGatesona |
| Citizen journalists | |
| Goolam | Tonight's speech by President Cyril Ramaphosa is going to be a GAME CHANGER. Some of the biggest plans ever with proper timelines for implementation. It's nothing like we have seen before. Drop everything and make sure you are part of the HISTORY making speech at 7pm #SONA2023 |

| Stakeholders: | Tweets (verbatim): |
|--------------------------------|--|
| Africa is Black (Pseudonym) | <p>Tonight’s speech by President Cyril Ramaphosa is going to be a GAME CHANGER. Some of the biggest plans ever with proper timelines for implementation. It’s nothing like we have seen before. Drop everything and make sure you are part of the HISTORY making speech at 7pm #SONA2023.</p> <p>Ramaphosa is a pathetic liar when he took office, he said he would reduce the number of Ministers, where will the salary of Electricity Minister come from, Ramaphosa must be removed before we find ourselves with a Minister of potholes and sewers. #StateofTheNationAddress2023</p> |
| SunflowerSrina | <p>Dear @CyrilRamaphosa: ... do you think at the next SONA, we could appoint a Minister of Potholes? #SONA23</p> |
| BraTokolleZA | <p>There's gonna be Minister of everything Minister of potholes Minister of electricity Minister of #PhalaPhalaFarmGate Minister of heavy rains, floods & heatwaves Minister of kleva-blacks Minister of future plandemics Minister of Ankole-Society Minister of political factions</p> |
| Mr. E45 | <p>Ai let there be war! Last year’s Sona's promises never came true. What difference will this one brings?</p> |
| Blonde Afrikaner | <p>State of the nation address summarised. You’re welcome.</p>  |

| Stakeholders: | Tweets (verbatim): |
|----------------------------|--|
| Tshimangadzo Oscar Magadze | South Africans are tired of empty promises. Crime is being normalised by those comrades who have 24hrs security. The country now is drug state because of our weakest home affairs department officials who overthrew our country in the hands of foreign nationals...Useless Sona |
| Punksta @Punksta3 | @PresidencyZA you are delusional! we will never get anything right if this is really your mindset! we currently in serious kaaken as a country in fact we are not even a country as we do not even have borders! do u even know how many ppl r in SA as we speak! |

2

1.4.5 Sentiment analysis

“Sentiment analysis (also called opinion mining) refers to the application of natural language processing, computational linguistics, and text analytics to identify and classify subjective opinions in source materials (e.g., a document or a sentence)” (Lu et al., 2013). The aim of sentiment analysis is to ascertain the attitude of a writer about an issue or topic, or the general contextual polarity of a document by quantifying sentiments as positive, negative, or neutral. The AtlasTi-driven analysis of the tweets yielded the following data:

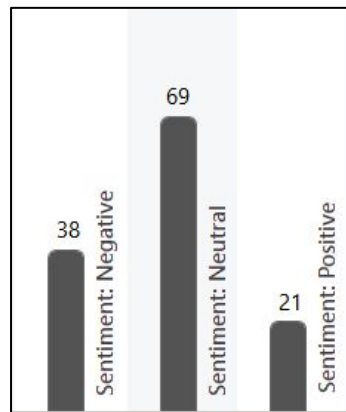


Figure 1: Overall tweet sentiment expressed: SONA 2023

4. RESULTS

The analysis rendered a diverse set of opinions from a wide array of stakeholders. Most of the tweets, nevertheless, displayed a neutral sentiment. On face value this may look in stark contrast with the strong negative emotions projected in the recorded responses of the thematic as well as the stakeholder responses, however, a more detailed inspection of the tweets reveals that this phenomenon is a result of the large amount of news reports that were generated by the SONA presentation. The tweets from the media are earmarked by a more rational and/or economic style

of argumentation. The journalists are bound by the strict protocols of the newsroom, as well as their political accreditation, they are not allowed to report and/or tweet in an overly emotional or abusive mode. They also tend to use the Twitter platform for tweets that serve as attention-pointers to their news reports. On the other hand, the political opponents of the President as well as most of the citizen journalists use the social media to respond in an emotional, and often, hostile, or aggressive manner. This is underscored by the storming of the stage by the members of parliament of the EFF and their subsequent eviction from the event.

5. CONCLUSION

The annual presentation of the State of the Nation address, generally referred to as SONA, heads up the news agenda at the time of its presentation. It also features on Twitter's list of trending topics. The researchers conducted a mixed method analysis on the various strands of Twitter discourse that featured on several hashtags that dealt with the topic. Although the qualitative and the quantitative results seem to be in contrast, the sociology and regulation of the newsrooms of the media provided an explanation for this phenomenon. It also shows that the conventional media has, undoubtedly, ventured into the field of the social media, more specifically Twitter, to promote their reports and their publications.

Furthermore, it shows that for many politicians, the social media have become a useful tool to remain visible in the public sphere, often with the assistance of television cameras.

REFERENCES

- Ameer, I., Sidorov, G., Gomez-Adorno, H., & Nawab, R. M. A. (2022). Multi-label emotion classification on code-mixed text: Data and methods. *IEEE Access*, *10*, 8779-8789.
- Arceneaux, N., & Schmitz Weiss, A. (2010). Seems stupid until you try it: Press coverage of Twitter, 2006-9. *New media & society*, *12*(8), 1262-1279.
- Boblin SL, Ireland S, Kirkpatrick H, Robertson K. (2013). Using Stake's Qualitative Case Study Approach to Explore Implementation of Evidence-Based Practice. *Qualitative Health Research*, *23* (9), 1267-1275.
- Boyatzis, R.E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage.
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.
- Bruns, A., Highfield, T., & Lind, R. A. (2012). Blogs, Twitter, and breaking news: The produsage of citizen journalism. *Produsing theory in a digital world: The intersection of audiences and production in contemporary theory*, *80*(2012), 15-32.
- Cision. 2013. Social Journalism Study. <http://www.cision.com/us/2013/12/howjournalists-view-pr-and-social-media/>.

-
- Collins, T. (2017.) Twitter says now we can all use 280 characters. CNet.<https://www.cnet.com/culture/twitter-280-character-tweets-donald-trump/>
- Donaldson, T. & Preston, L.E. (1995). The Stakeholder Theory of The Corporation: Concepts, Evidence, and Implications. *Academy of Management Review*, 20(1), 65-91.
- Eisenhardt, K.M. (1989). Building theories from case study research. *Academy of Management Review*, 14 (4), 532-550.
- Frame, A. (2016). Introduction. In A.Frame & G. Brachotte, G. (Eds.). *Citizen participation and political communication in a digital world*. London: Routledge.
- Donaldson, T. & Preston, L.E. (1995). The Stakeholder Theory of The Corporation: Concepts, Evidence, and Implications. *Academy of Management Review*, 20(1), 65-91.
- Hermes, J. (2006). Citizenship in the Age of the Internet. *European Journal of Communication*, 21(3), 295-309.
- IOL. (2023). SONA2023 LIVE: President Cyril Ramaphosa's State of the Nation Address as it happens. <https://www.iol.co.za/news/politics/sona2023-live-president-cyril-ramaphosas-state-of-the-nation-address-as-it-happens-d7222307-2ea3-4bb7-96f1-fd7b137eaff8>
- Lee, N. Y., Kim, Y., & Sang, Y. (2017). How do journalists leverage Twitter? Expressive and consumptive use of Twitter. *The Social Science Journal*, 54(2), 139-147.
- Mercier, A. (2016). Twitter as a Counterpublic Sphere: Polemics in the Twittersphere during French Electoral Campaigns. In: A Frame & G Brachotte (eds.), *Citizen Participation and Political Communication in a Digital World*, London, Routledge, pp. 139-152.
- Miles, M.B. & Huberman, A.M. (1994). *Qualitative Data Analysis*. Sage.
- Pillay, K. 2023. IOL Politics. Everything you need to know about the state of the nation address and how it is convened. <https://www.iol.co.za/news/sona2023-everything-you-need-to-know-about-the-state-of-the-nation-address-and-how-it-is-convened-2e317071-a0af-4001-a0b5-b653c150bd2e>
- Pudaruth, S., Moheeputh, S., Permessur, N., & Chamroo, A. (2018). Sentiment analysis from Facebook comments using automatic coding in NVivo 11.
- South African Government. 2023. State of the Nation Address. [https://www.gov.za/state-nation-address#:~:text=The%20State%20of%20the%20Nation,Council%20of%20Provinces%20\(NCOP\)](https://www.gov.za/state-nation-address#:~:text=The%20State%20of%20the%20Nation,Council%20of%20Provinces%20(NCOP)).
- Staff Writer. (2023) SONA 2023: More of the same – with a dash of desperation. *Business Tech*. <https://businesstech.co.za/news/business-opinion/663651/sona-2023-more-of-the-same-with-a-dash-of-desperation/>
- Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 443-466). Thousand Oaks, CA: Sage.
-

Timeslive. 2023. WATCH | EFF MPs thrown out after storming stage to disrupt Ramaphosa's Sona
<https://www.timeslive.co.za/politics/2023-02-09-eff-mps-thrown-out-of-chambers-amid-disruptions-of-sona/>

Yin, R. K. (2009). Case study research: Design and methods (4th ed.). Los Angeles: Sage.

SSIRC 2023-090**COMMUNITY DEVELOPMENT PLANNING PRE & POST COVID-19:
BUILDING SUSTAINABLE FUTURE FOR ALL COMMUNITIES IN
SOUTH AFRICA****D.S. Malebana**

University of Limpopo, South Africa

P.T. Mnisi

University of Limpopo, South Africa

ABSTRACT

This paper analyses the nature of community development planning process pre and post COVID-19 to ascertain prospects of a sustainable future for all communities in South Africa. The debate about denial and limited access for communities to participate in community development planning projects and programmes, remains a pertinent issue. South Africa is legislatively mandated by various pieces of policies and plans aimed at ensuring that the needs of all people are well-catered for. However, the marginalisation of most communities, especially rural areas, remains a dominant feature in the rhetoric of community development planning process. As a result, the sustainability of the future of all communities gets tampered with. This is a theoretical paper, which relied on a literature review for its premise, argument, purpose, as well as drawing up results and conclusions. The paper gathered information in respect of various scholars' notions on community development planning issues from related articles, journals, and books. Therefore, the data were analysed through the document analysis technique. In most cases, the local government officials do not consult with residents in communities to prioritise projects necessarily for improving standards of living and to ensure effective service delivery. This in turn affects the process of community development planning and the possibilities of securing sustainability. The paper concludes that the challenges associated with community development planning outweigh the prospects, which tampers with the chances for securing a sustainable future for all communities in South Africa. Therefore, the paper recommends a review of the policies and frameworks that put people at the centre of every development initiative. This will also ease the process of community development planning towards creating sustainable future for all communities.

KEYWORDS: community development planning; sustainability; community participation; service delivery; development; poverty

1. INTRODUCTION

This paper analyses the nature of community development planning process pre and post COVID-19 to ascertain prospects of a sustainable future for all communities in South Africa. The debate about denial and limited access for communities to participate in community development planning projects and programmes, remains a pertinent issue (Ndakuba & Hanyanne, 2019). South Africa is legislatively mandated by various pieces of policies and plans aimed at ensuring that the

needs of all people are well-catered for (Levin, 2018). However, the marginalisation of most communities, especially rural areas, remains a dominant feature in the rhetoric of community development planning process. As a result, the sustainability of the future of all communities gets tampered with. Internationally, sustainable development necessitates ideas with achievable goals (Buheji, 2020). Although sustainable development can be realised as identical with notions such as urban independence, self-confidence, or self-support, it is, nevertheless, it remains minimally attained (Landa, Zhou & Marongwe, 2021). The slogan of the 1990s, which says “Act Locally, Think Globally” employed the worldwide programme concerning the environment, charitable motivation to the application of sustainable development (Ndakuba & Hanyanne, 2019). In the Report of Brundtland, sustainable development was viewed as a state of meeting the needs of the current generation without compromising the aptitude of upcoming cohorts to get a chance of meeting their own needs (Buheji, 2020). Developing global programmes about sustainability viewed it as a all-inclusive tactic intended at the fiscal, communal and biophysical environment relatively than restricted to a green agenda (Rogerson & Baum, 2020).

According to Buheji (2020), there were attempts to address the economic complications faced in South Africa through the introduction of legislatives and policies. Therefore, there were key policy improvements that were made pre- COVID-19 era, comprising the safety of rural manufacturers, customers, and other markets. Nevertheless, the outbreak of COVID-19 was not only unforeseen, but also devastating in 2020, resulting in a high death rate across the country. This tremendously affected the overall economy and communities in rural areas. Stone, Stone, Mokgomotsi and Mokgomotsi (2021) contended that, the economic effects were also aggravated by alternative approaches such as lockdowns by diverse nations around the world. Nevertheless, it was recognised that rural organisations are regarded as having a probable part in rural poverty alleviation and sustainable development. Therefore, the implementation of local organisations in rural areas and capacity construction as important rudiments of tactics for rural poverty alleviation are essential (Ndakuba & Hanyanne, 2019). Local economic development, as a poverty alleviation scheme, is a people-centred process and condition specific (Rogerson & Baum, 2020). Ordinary considerations for such development comprise developed health facilities, infrastructure services, hygiene amenities, and learning services. Apart from the above factors for local and sustainable development, local communities have substantial indigenous knowledge that could be suitable for facilitating sustainable development (Rogerson & Baum, 2020). The indigenous knowledge is not completely utilised because of the absence of corresponding foundations and amenities that allow communities to upgrade production and sustainability. It is quite significant for development practitioners and policymakers to simplify the distribution of this indigenous knowledge (Rogerson & Baum, 2020). This will permit distribution among communities, instead of exhausting already insufficient means in creating new knowledge and data that will not be beneficial to the communities for sustainable development.

This paper is divided into 6 parts. The first part introduces the study; the second part is the literature discussion, which provides a discussion of the theoretical framework for the study; the nature of sustainable communities, and lastly, community development planning in South Africa: pre- and post- COVID-19. The third part of this paper provides a discussion of the methodology used to

collect and analyse the data. The fourth part of this paper entails a discussion of the findings from the literature reviewed, followed by the conclusion of the study. The last section provides a list of all the sources of the information cited in this study.

2. LITERATURE REVIEW

This section consists of the discussion of the theoretical framework of the study and 3 themes, which are, the nature of sustainable communities and community development planning in South Africa: pre and post COVID-19.

2.1 Theoretical Framework

This study is epistemologically grounded in the Humanistic People-Centred Framework (HPCF), where people and the community become increasingly the focus of development. As such, it depends on a literature review for its premise, argument, and purpose, as well as drawing up results and conclusions. The HPCF emphasises the need for development agents to put people at the centre of development (Vigiola, 2022). That is, in terms of this paper, community members should be the drivers of their own development. They should be given the opportunity to voice their concerns. The framework further recognises a need for the empowerment of people during development initiatives. For this paper, change or development agents should allow and encourage community participation in the process of community development planning. This will also aid in a sense of belonging to the communities and assist the change agents to bring the right and relevant development to the community (Landa, Zhou & Marongwe, 2021).

The HPCF encourages feelings of independence and dignity for everyone (Vigiola, 2022). It proffers that when people take charge of their own development, they tend to learn to be independent, which becomes an advantage to the government as the process of improving the standards of living of people becomes easier. The principles of the HPCF help in improving the relationship between community members and development agents (Todes & Turok, 2018). For this paper, catering to the needs of the community members and respecting them, inspires positive answers and communication. Eventually, this generates a greater expressive bond. The HPCF stresses the need for development agents to ensure that all the needs of community members are considered, prioritised, and attended to (Todes & Turok, 2018). The framework further calls for the establishment of self-supporting societal and economic structures, which are the main elements of a sustainable community (Todes & Turok, 2018). Community participation and accurate autonomous course require that individuals have the resources to embrace government bureaucrats and public organisations responsible. They demand that authorities act as enablers for the individuals' plan, initiating procedures that improve citizen participation. Communities should have access to related and consistent data to make decent choices for themselves and their communities.

2.2. The nature of sustainable communities

Sustainable communities are communities that are designed, developed, and maintained in a way that promotes social, environmental, and economic sustainability. Such communities strive to meet

the needs of the present generation without compromising the ability of future generations to meet their own needs (United Nations, 2015; U.S. Environmental Protection Agency, 2019). Sustainable communities are characterised by a range of features, including an efficient use of resources, protection and enhancement of natural resources creation of green spaces and urban forests, promotion of sustainable transportation options, provision of affordable housing and access to basic services and active community engagement and participation in decision making processes (United Nations, 2015; U.S. Environmental Protection Agency, 2019, United Nations Human Settlements Programme, 2015). ‘Sustainable communities’ has become an increasingly popular concept in recent years due to a growing concern about environmental degradation, population growth, and resource depletion. A sustainable community is often defined as a community that can meet the needs of the present generation without compromising the ability of future generations to meet their own needs.

According to the United Nations (2015) and the U.S. Environmental Protection Agency (2019), there are key characteristics commonly associated with sustainable communities. These include:

- **Resource conservation:** Sustainable communities work to minimise the use of non-renewable resources and maximise the use of renewable resources.
- **Social Equality:** Sustainable communities strive to create fair and equal access to resources and opportunities for all members of the community.
- **Economic Vitality:** Sustainable communities aim to support local economies using local resources and businesses.
- **Environment Protection:** Sustainable communities prioritise the protection and preservation of natural resources and ecosystems.
- **Community participation:** Sustainable communities encourages active participation from community members in decision-making processes related to sustainable development.

Several strategies have been employed to promote the development of sustainable communities. These include green building design, the use of renewable energy sources, transportation planning that prioritises walkability and public transit and the adoption of sustainable agriculture and food system (United Nations, 2015; U.S. Environmental Protection Agency, 2019). The goal of sustainable communities is to create viable, healthy, and resilient places where people can thrive over the long term, while also minimising the environmental impact of a human activities. Sustainable communities are important because they aim to create long-term social, economic, and environmental sustainability within a community (United Nations, 2015; U.S. Environmental Protection Agency, 2019). This means that the community is designed to meet the needs of its residents without compromising the ability of future generations to meet their own need.

The United Nations (2015) and the U.S. Environmental Protection Agency (2019) mentioned that there are several key reasons why sustainable communities are important:

-
- **Environmental Sustainability:** Sustainable communities aim to minimise their impact on the environment by reducing greenhouse gas emissions, promoting renewable energy, conserving resources, and protecting natural habitats. This helps to ensure that the natural resources we rely on are preserved for future generations.
 - **Economic sustainability:** sustainable communities aim to create a strong local economy that supports local businesses and provides residents with access to job opportunities. This helps to reduce poverty and promotes economic growth.
 - **Social sustainability:** Sustainable communities aim to create a sense of community and social cohesion by promoting community involvement, social equity and inclusivity. This helps to create a sense of belonging and improve the overall quality of life for residents.

There are examples of the nature of sustainable communities, which include the following:

- The beddings Zero Energy Development (BedZED) in London, UK, which is a sustainable community that aims to be zero carbon, zero waste and zero water.
- The Vauban neighborhood in Feirburg Germany, which is a car-free community that promotes cycling and public transportation.
- The village homes community in Davis, California, which is a sustainable community that include features such as solar power, shared gardens, and green spaces.

The challenges associated with the nature of sustainable communities:

- **Implementations:** one of the key challenges in creating sustainable communities is implementing sustainable practices and infrastructure, particularly in existing communities where retrofitting and redevelopment can be costly and complex (Liu et al. 2019).
- **Equity:** Sustainable communities must be equitable, ensuring that all members of the community have access to basic services, affordable housing, and sustainable transportation; however, achieving equity can be challenging due to existing social, economic, and political inequalities (Dempsey & Bramley, 2019).
- **Collaboration:** sustainable communities require collaboration across different sectors and stakeholders, including government, businesses, non-profits, and community members. However, collaboration can be difficult due to competing interests and power imbalances (Liu & Zhang, 2019).

2.3. The need for and importance of planning for sustainable communities

According to Balint, Stewart, Desai, and Walters (2011), community development is often a nebulous term that comprises many conceptual and practical characterisations in its definition. The

growing interest in community development emanated from the field's proven capacity to deliver solutions to community problems (Carnegie Foundation for the Advancement of Teaching, 2020). Additionally, the multi-faceted ways in which communities worldwide participate in community development efforts has contributed to community development's conceptual and practical pluralism. Such pluralism has become overwhelming and has forced many to produce more narrow conceptualisations of community development, often framed by areas of specialisation (Berkes & Folke, 1998). Such conceptualisations lack a holistic vision or conceptual basis that provides an overarching guidance to the field.

The concept of a "sustainable community" does not describe just one type of neighbourhood, town, city, or region (Liu et al., 2019). Activities that the environment can sustain and that citizens want and can afford may be quite different from community to community (Carnegie Foundation for the Advancement of Teaching, 2020). Rather than being a fixed thing, a sustainable community is continually adjusting to meet the social and economic needs of its residents while preserving the environment's ability to support it. According to Balint, Stewart, Desai, and Walters (2011), a sustainable community uses its resources to meet current needs while ensuring that adequate resources are available for future generations. It seeks a better quality of life for all its residents while maintaining nature's ability to function over time by minimising waste, preventing pollution, promoting efficiency, and developing local resources to revitalise the local economy (Liu et al., 2019). Decision-making in a sustainable community stem from a rich civic life and shared information among community members. A sustainable community resembles a living system in which human, natural and economic elements are interdependent and draw strength from each other (Balint et al., 2011). Potentially significant employment opportunities, consistent with more sustainable patterns of development, exist in many economic sectors.

According to Liu and Zhang (2019) and Landa, Zhou and Marongwe (2021), planning for sustainable communities is crucial for several reasons and the following are some of the key reasons why planning for sustainable communities is important:

- **Environmental sustainability:** sustainable communities are designed to minimise their impact on the environment. This includes reducing greenhouse gas emissions, preserving natural resources, and protecting biodiversity. By planning for sustainable communities, we can reduce our overall environmental impact and help protect the planet for future generations.
- **Economic sustainability:** sustainable communities are also designed to be economically sustainable. This means creating local jobs, encouraging local business, and promoting economic growth. By planning for sustainable communities, we can create local economic opportunities that benefit everyone in the community.
- **Social sustainability:** sustainable communities are designed to promote social sustainability, which means creating communities that are inclusive, safe, and healthy. This includes creating affordable housing, promoting public health and safety, and

providing access to public transportation. By planning for sustainable communities, we can create communities that are more liable and enjoyable for everyone.

- Long-term planning: planning for sustainable communities requires long-term planning and foresight. This means considering the needs of future generations and designing communities that can adapt to changing circumstances by planning for sustainable communities, we can create communities that are resilient and able to withstand the changes of the future.

2.4 Community Development Planning in South Africa: Pre and Post COVID-19

Over 300 million formal economy jobs vanished, and 1.5 livelihoods lost in the informal economy pre and post COVID-19. Major limitations in business responsibilities towards employees have been violently uncovered (Rogerson & Baum, 2020). On the same hand, non-indispensable stock chains have failed in developing countries and numerous employees in the informal sector face hardship with no community defence. Even though the technical business benefits from the rapid increase of needs, other businesses are requesting bailouts due to a lack of flexibility (Landa, Zhou & Marongwe, 2021). Just as the financial disaster exposed the need for banks to embrace liquidity reserves, the Coronavirus disaster revealed the necessity for international initiatives to strengthen operational reserves, which rarely last beyond 3 months (Landa, Zhou & Marongwe, 2021). This concern demands the consideration of cooperation of firms and mechanisms. All these considerations compel one to press the ‘reset’ button to warrant a just modification toward an enhanced future. The change should rectify all the convergent emergencies, which could be done with worldwide teamwork, centred on the correct necessities of communities’ health, economic security, and respect for their human rights (Berkes, Colding & Folke, 2003).

A big part of South Africa’s population of about 59 million residents was affected by the COVID-19 virus in March 2020 (Landa, Zhou & Marongwe, 2021). Upon the initial phases of the virus, based on the Gini coefficient, a measure of social imbalance, South Africa was considered as the highest imbalanced country worldwide with a Gini coefficient record of 0.63 (Rogerson & Baum, 2020). Above 14% of South Africa’s residents are based in informal settlements with inadequate homes and health services. Approximately 30% increase in unemployment rate was recorded in the country in 2020. Incongruously, it is precisely these marginalised, demoted groups of individuals that have remained relentless despite the pandemic and its effects (Rogerson & Baum, 2020). Most of the citizens living in the informal settlements of the country have been targets of COVID-19 spreads because of excessive stages of populace intensity and absence of admission to needs, such as water and sanitation (Rogerson & Baum, 2020). Poor infrastructure made it almost impossible to obey the government’s guidelines, such as social distancing and to access social grants, nourishment, transportation (Landa, Zhou & Marongwe, 2021). A country’s good healthcare depicts its moral value of life and a willingness to create balanced economic growth (Ndakuba & Hanyanne, 2019). A healthy populace is the basis of a country’s bargain and the government’s efforts to alleviate poverty by developing its citizens (Landa, Zhou & Marongwe, 2021).

The COVID-19 pandemic severely affected the economy of South Africa. Notwithstanding the expanding vaccine circulation procedure worldwide, the vaccine dissemination instruments took a prolonged time to reach all the sectors of society (Landa, Zhou & Marongwe, 2021). The effect of the virus on society and the economy was devastating, to say the least. Corruption in the country's public service with capitals coupled with the Temporary Employer/Employee Relief Scheme exacerbated the problems (Ndakuba & Hanyanne, 2019). The social group administration Bribery Guard noted more than 100 fraud cases linked with the account.

Inexorably, fraud, negligence together with the fated fiscal fall-out of South Africa's virus supervision resulted in a monetary disaster. The shutdown of all industrious segments throughout the beginning of the lockdown worsened unemployment to 30%, thus further hampering economic growth (Landa, Zhou & Marongwe, 2021). Moreover, the percentage of the gross domestic product reached 64%. This debt was anticipated to rise to 82% in 2020/21 as an outcome of a R300 billion income deficit and was envisioned to develop constantly except if there is a major GDP development (Landa, Zhou & Marongwe, 2021). These results are a straightforward outcome of the lockdown. The second quarter lockdown resulted in a decline in the production of the greatest economically productive segments, excluding the agricultural sector. A raise in maize exports together with a climbing universal command for pecans and citrus led to a 15.1% rise in the agricultural sector (Landa, Zhou & Marongwe, 2021).

3. METHODOLOGY

This section elucidates the methodology used to collect data based on the nature of community development planning process pre and post COVID-19 to ensure a sustainable future for all communities in South Africa. It consists of the research design; sampling method; research instrument; data collection and analysis.

3.1 Research design

This is a theoretical paper, which relied on a normative research design to investigate the nature of community development planning process pre and post COVID-19 to ensure a sustainable future for all communities in South Africa. This research design uses secondary data as a source of information and it does not control variance, which made it relevant to the study.

3.2 Sampling method

To sourcing relevant information, the judgemental sampling method was adopted to choose journal articles, newspapers and other government documents published between 2018 and 2023. The judgmental sampling method assisted the researcher to select relevant journal articles, newspapers, and other government documents.

3.3 Research instrument

The qualitative research instrument was adopted in this paper. The research instrument brought adjustable directions on how the study ought to make an improvement. A qualitative research instrument is typically applied to get a comprehensive insight if there is an insufficient

understanding about the phenomenon and the researcher believes that the existing data or theories may be prejudice.

3.4 Data collection

This paper relied on a literature review for its premise, argument, purpose, as well as drawing up results and conclusions. The paper gathered information in respect of various scholars' notions on community development planning issues from related articles, journals, and books.

3.5 Data analysis

Document analysis was appropriate for the study and was thus selected to analyse the data. Document analysis involves appraising electronic and tangible documents to explain and gain knowledge of their significance and explores the understanding they provide. Utilising the document analysis empowered the study to acquire fundamental motives, beliefs, and enthusiasm related to the effects of biodiversity conservation on the sustainable livelihood diversification of rural communities in South Africa. Diverse resources were assembled and data from the resources were compiled, and validity was confirmed by acknowledging other scholars whose studies are like this one. This paper drew its conclusion based on the data collected through a desktop study.

4. RESULTS AND DISCUSSIONS

This section presents the results and discussions based on what has been found in document analysis. The results from this paper are simply and objectively what have been found, without speculating on why these results have been found. The discussion interprets the meaning of the results, puts them in context, and explains why they matter. Below are the results and discussions:

- The paper found that, without an inclusive conceptualisation, sustainable communities face the risk of becoming too narrow in focus. There exist sustainable communities because of sustainable development. Thus, for sustainable communities to remain sustainable, the conceptualisation of sustainable communities must be well understood and defined.
- The paper found that, there is a need to build institutions that demonstrate strong governance. Strong institutions are the cornerstone of stable governments. A democracy with strong institutions would be able to produce the essential elements of a fully democratic government through a proper separation of powers thereby enabling a system that allows for the checks and balances of the various arms of government.
- Most communities are still living under poverty-stricken situations and unemployment. This is one of the findings in this paper. This is since most people in communities are still poor and unemployed, which hinders sustainable development, self-reliance and social learning processes and empowerment.

- The paper found that the COVID-19 pandemic brought a sombre and disturbing effect on the economy of South Africa. Until today, it is difficult for the government to pick up the economy from the level it dropped to since the beginning of the pandemic.
- Furthermore, the paper found that inexorable fraud, negligence together with the fated fiscal fall-out of South Africa's virus supervision, have resulted in a monetary disaster. The shutdown of all industrious segments throughout the beginning of the lockdown resulted in unemployment, which reached 30%, and as such, economic growth has been hampered.

5. CONCLUSION

The concept of sustainable communities is gaining traction and many communities around the world are adopting strategies to become more sustainable. However, there are still challenges to be addressed. These include lack of political will, limited financial resources and resistance to change from some members of the community. Nevertheless, with a continued effort and commitment, the goal of creating sustainable communities is achievable. Therefore, the study recommends the need for all government officials to ensure effective planning for sustainable communities, which is essential for creating a better future for current and future generations. By designing communities that are environmentally, economically, and socially sustainable, we can create communities that are more liable, enjoyable, and resilient. Moreover, there is a need to consider a cooperation of firms and of mechanisms. All these considerations demand the country to reset its ideological outlook and modify its practices towards an enhanced future. The change should rectify all the convergent emergencies, which could be done with worldwide teamwork, centred on the correct necessities of communities' health, economic security, and respect for their human rights.

REFERENCES

- Balint, P.J., Stewart, R.E., Desai A., & Walters, L.C. (2011). *Wicked Environmental Problems*. Island Press, Washington.
- Berkes, F., & Folke, C. (Eds.). (1998). *Linking Social and Ecological Systems: Management Practices and Social Mechanisms for Building Resilience*. Cambridge University Press, Cambridge, UK.
- Berkes, F., Colding, J., & Folke, C. (2003). *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change*. Cambridge University Press: United Kingdom, Cambridge.<http://assets.cambridge.org/052181/5924/sample/0521815924ws.pdf>
- Brock University. Goal 11: Sustainable Cities and Communities. Available at: https://brocku.ca/sustainability/sdgs_at_brock/goal11/.
- Buheji, M. (2020). Planning Competency in the New Normal– Employability Competency in Post-COVID-19 Pandemic. *International Journal of Human Resource Studies*, 10(2):1-15.

-
- Carnegie Foundation for the Advancement of Teaching. (2020). Elective Community Engagement Classification. Available at: https://communityengagement-2021.sites.olt.ubc.ca/files/2021/06/2020-Classification-Framework_Public.pdf.
- Landa, N., Zhou, S. & Marongwe, N. (2021). Education in Emergencies: Lessons from COVID-19 in South Africa. *International Review of Education*, 67:167-183.
- Levin, R. (2018). Building a People-Centred, People-Driven Public Service and Administration Culture in Africa for Youth Empowerment and Development. *African Journal of Public Sector Development and Governance*, 1(1): 34-45.
- Lui, Y.J., & Zhang, J. (2019). Building Sustainable Communities: Challenges and Opportunities. *Habitat International*, 86:1-4.
- Ndakuba, EA & Hanyanne, B. (2019). Stakeholder Model for Community Economic Development in Alleviating Poverty in Municipalities in South Africa. *Journal of Public Affairs*, 19(1):1-11.
- Rogerson, C.M & Baum, T. (2020). COVID-19 and African Tourism Research Agendas. *Journal of Development Southern Africa*, 31(5):727-741.
- Stone, LS., Stone, MT., Mokgomotsi PK and Mokgomotsi GEJ. (2021). The Impacts of COVID-19 on Nature-Based Tourism in Botswana: Implications for Community Development. *Journal of Tourism Review International*, 25(2-3): 263-278.
- Todes, A. & Turok, I. (2018). Spatial Inequalities and Policies in South Africa: Place-Based or People-Centred? *Journal of Progress in Planning*, 123(1): 1-31.
- U.S. Environmental Protection Agency. (2019). Sustainable Communities. Retrieved From <https://www.epa.gov/smartgrowth/sustainable-communities>.
- United Nations. (2015). Transforming our World: the 2030 Agenda for Sustainable Development. Retrieved from <https://sustainabledevelopment.un.org/post2015/transformingourworld> .
- Vigiola, G.Q. (2022). Understanding Place in Place-Based Planning: From Space- to People-Centred Approach. *Journal of Place-Based Urban Planning*, 11(11):252-276.
- Zikmund, W.G., Babin, B.J., Carr, J.C. and Griffin, M., 2013. *Business research methods*. Cengage learning.

SSIRC 2023-096**EFFECT OF RISK-TAKING ON RETAIL SMES' NON-FINANCIAL PERFORMANCE IN TSHWANE****V. Kalitanyi**

University of Johannesburg, South Africa

ABSTRACT

Around the world, studies continue to be undertaken on SMEs' performance due to their effect on economic development. A well-organised and -managed small business sector is a catalyst to the economic and social growth. On the other hand, findings from various studies in many countries have found risk-taking behaviour to have a positive effect on firm success. Unfortunately, South Africa lags many other Southern African countries in SMEs' performance, and it is against this backdrop that this study seeks to investigate whether risk-taking influences the performance of the SMEs in one of the economic hubs of South Africa – Tshwane. This study will adopt a quantitative paradigm and deductive approach. Surveys will be used as research strategy, and data will be collected by means of a questionnaire. The inclusion criteria will be to own a retail small business and operating in Tshwane Metropolitan Municipality. SPSS will be used to capture and analyse data. The researcher predicts a positive correlation between risk taking and SMEs' performance, hence the following hypothesis can be drawn: *There is a positive and significant relationship between risk-taking and the non-financial performance of retail SMEs in Tshwane Metropolitan Municipality.* Risk-taking is considered as one of the main features of the entrepreneurial process since it entails a willingness to adapt and go into the unknown. Entrepreneurship studies need to emphasise risk-taking. However, entrepreneurs and aspiring entrepreneurs need to learn to take calculated risks, considering the conditions of the environment they operate in.

KEYWORDS: Risk-taking, SMEs, non-financial performance, retail business, Tshwane.

1. INTRODUCTION

SMEs' performance attracted the attention of academics and researchers around the world due to their effects on economic growth in many countries (Ribeiro-Soriano, 2015; Al Asheq & Hossain, 2019; Olubiyi, Egwakhe, Amos, & Ajayi. 2019). Qamruzzaman & Jianguo (2019), Ključnikov, Civelek, Cera, Mezulánik & Maňák (2020) append that SMEs are essential in every country's economy and continue to be a prominent force in businesses around the world. According to the Organisation for Economic Co-operation and Development OECD (2017), SMEs are frequently taken as a vital source of job creation, responsible for 45% of all jobs, 80% of the formal economy, and generating an average of 33% of the Gross Domestic Product (GDP).

2. LITERATURE REVIEW**2.1. Conceptual framework****2.1.1. Risk-taking**

The degree to which an organisation can push its desire to act, even when the outcome is not known (Kallmuenzer & Pefactor (2018) is referred to as ‘risk-taking’. For Kurtulmuş & Warner (2015) and Njoroge (2015), risk-taking refers to the ability to seek out realistic possibilities which, if they turn out to be negative, won’t threaten the company’s future. Organisations participating in unmeasured business-related scenarios, such as company orientation to go for new benefits and efficiency initiatives, sometimes lead to risky situations of failure or success (Al-Dhaafri, Al-Swidi & Yusoff, 2016).

Risk-taking is at the centre of an entrepreneurial organisation since it entails a willingness to adapt and go into the unknown (Dzomonda & Fatoki, 2019). When embracing an entrepreneurial organisation with risk-taking and investing time and other resources into determining the optimal degree of risk-taking, organisations might pave a way for significant returns on investment (Lawal, Adegbuyi, Iyiola, Ayoade & Taiwo, 2018).

As Pratono (2018) and Cannavale and Nadali (2018) put it, findings of different countries concerning risk-taking behaviour have shown a positive effect on firm success; however, Arisi-Nwugballa, Elom, and Onyeizugbe (2016) and Duru, Ehidihamen, and Chijioke (2018) have found that risk-taking does not have any significant effect on enterprise performance. Hence, this study sets the hypothesis “*There is a positive and significant relationship between risk-taking and the non-financial performance of retail SMEs in Tshwane Metropolitan Municipality*”.

2.1.2. Retail sector

2.1.2.1. Overview of the Retail Sector in South Africa

Definition of the Retail Sector in South Africa

Retail is defined as an activity of selling goods to the public, usually in small quantities, for their personal use, which activity includes the resale (sale without transformation) of new and used goods and products to the public for household use (Masojada, 2021). The Standard Industrial Classification (SIC) from Statistics South Africa is an appropriate way to categorise the South African retail industry. Divisions 62 are responsible for the entire retail trade in South Africa (Stats SA, 2022). Cafés, general dealers, specialty stores, exclusive boutiques, chain stores, department shops, cash and carry wholesale-retail shops, and cooperative stores are among the retail locations that serve most rural areas (Ngepah, 2019).

The sale of farmers’ products and processed goods solely to the public for personal or household use is excluded from the retail sector as specified by the SIC (Stats SA, 2022). Also excluded from the definition of retailing are the selling of automobiles, motorcycles, and motorcycle components, as well as car gasoline, the sale of automobiles or other products to institutional or industrial consumers, as well as the sale of food and beverages for use on the premises (i.e., bars, restaurants), and the rental of personal and household goods to the general public (Stats SA, 2022).

Malgas, Sibotshiwe, Anderson, Mutize & Mason (2020) posit that the wholesale and retail sector is part of the economy’s services sector and acts as a bridge for taking commodities from a supplier

via an intermediary to a final customer. Major categories of retailers in South Africa include cafes, general dealers, specialty stores, exclusive boutiques, chain stores, department shops, cash and carry wholesale-retail shops, and cooperative stores are among the retail locations that serve most rural areas (Herholdt, 2013).

In South Africa, the sector is marked by many small business operators, primarily in the informal sector, and a few major companies.

Informal retail comprises small, unregistered enterprises that operate as street sellers and in-home businesses founded on private properties (often called spaza shops or tuck shops in South Africa).

Role of retail SMEs

In the 1990s, the South African economy underwent a structural transition from the primary (mine and manufacturing) to the tertiary (wholesale and retail trade) sectors. Retail and wholesale are crucial sectors that keep South Africa's economy moving. Mandipa & Sibindi (2022) call for a critical assessment of the retail industry as it has been growing at a pace faster than that of other sectors.

On the employment side, the retail sector is among the top five in the country (Aye, Balcilar, Gupta & Majumdar, 2015). The trade (wholesale and retail) and hospitality sectors dominate the SMME economy in South Africa, accounting for approximately 944 500 out of a total of 2.2 million businesses (SEDA, 2016), while the retail industry is hailed for promoting social well-being by providing customers with various goods and services they need (Sibindi & Aren, 2015).

The retail sector accounts for about 15% of the country's Gross Domestic Product (GDP) and hires about 22% of its overall employed population (Abe & Mason, 2016; Stats SA, 2021). Aye, Balcilar, Gupta & Majumdar (2015) report that the South African retail business is the largest in Sub-Saharan Africa, thereby creating conditions for new companies to give birth. Subsequently, this situation places the retail sector as an important sector in the overall South African economy (Stats SA 2021).

According to Sibindi & Aren (2015), half of the SMEs in the formal sector are employers, while the other half are self-employed. Interestingly, the bulk of those working in the informal sector are self-employed. A microenterprise survey conducted in 2015 reveals that the retail market accounts for about 70% of all micro-enterprises in South Africa (Sibindi & Aren, 2015).

Campbell (2017) argues that the retail sector is crucial for the South African economy as an emerging nation. Ntloedibe (2017) appends and says that the industry contributed 9% of the GDP in 2016. The sector is predominantly made of formal agrifood supply chains and retailers (Greenberg, 2015; Peyton, Moseley & Battersby, 2015). There are also supermarkets and restaurants through which the formal food retail industry provides ready-to-eat meals, drinks, and

groceries (Battersby, Marshak & Mngqibisa, 2016), while informal food sellers prevailing in townships or informal settlements, count for around 55% of all small-size firms (Skinner, 2016).

SMEs in the wholesale and retail trade, mechanical or motor vehicles and motorcycles, personal and household supplies, hotels and restaurants, and other industries contributed 22.9% of the formal sector and 51.7% of the informal sector in the South African economy (Aren & Sibindi, 2014). In South Africa, the retail sector is dominated by the famous brands such as Spar, Pick n Pay, Woolworths, Shoprite, and Checkers.

Table 1: The new National Small Enterprise Act threshold for defining enterprise size in SA.

| Sector or subsector in accordance with standard industrial classifications | Size/Class | Total full-time equivalent of paid employees | Total annual turnover |
|--|------------|--|-----------------------|
| Agriculture | Medium | 51-250 | ≤R35 million |
| | Small | 11-50 | ≤R17 million |
| | Micro | 0-10 | ≤R7 million |
| Mining and quarrying | Medium | 51-250 | ≤R210 million |
| | Small | 11-50 | ≤R50 million |
| | Micro | 0-10 | ≤R15 million |
| Manufacturing | Medium | 51-250 | ≤R170 million |
| | Small | 11-50 | ≤R50 million |
| | Micro | 0-10 | ≤R10 million |
| Electricity, gas, and water | Medium | 51-250 | ≤R180 million |
| | Small | 11-50 | ≤R60 million |
| | Micro | 0-10 | ≤R10 million |
| Construction | Medium | 51-250 | ≤R170 million |
| | Small | 11-50 | ≤R75 million |
| | Micro | 0-10 | ≤R10 million |
| Retail and motor trade and repair services | Medium | 51-250 | ≤R80 million |
| | Small | 11-50 | ≤R25 million |
| | Micro | 0-10 | ≤R7.5 million |
| Wholesale trade, commercial agents, and allied services | Medium | 51-250 | ≤R220 million |
| | Small | 11-50 | ≤R80 million |
| | Micro | 0-10 | ≤R20 million |
| Catering, accommodation, and other trades | Medium | 51-250 | ≤R40 million |
| | Small | 11-50 | ≤R15 million |
| | Micro | 0-10 | ≤R5 million |
| Transport, storage, and communication | Medium | 51-250 | ≤R140 million |
| | Small | 11-50 | ≤R45 million |
| | Micro | 0-10 | ≤R7,5 million |
| Finance and business services | Medium | 51-250 | ≤R85 million |
| | Small | 11-50 | ≤R35 million |

| Sector or subsector in accordance with standard industrial classifications | Size/Class | Total full-time equivalent of paid employees | Total annual turnover |
|--|------------|--|-----------------------|
| | Micro | 0-10 | ≤R7,5 million |
| Community, social and personal services | Medium | 51-250 | R70 million |
| | Small | 11-50 | R22 million |
| | Micro | 0-10 | R5 million |

Source: Government Communication and Information System (GCIS) (2019)

According to Table 1, criteria of the number of staff and total revenue turnover are often used to define SMEs. They are classified differently based on the industry. Since the research focuses primarily on the small- and medium-business sectors of SMEs, the terms ‘small business’, ‘medium business’ and ‘SMEs’ are used interchangeably and are considered interchangeable in this study. Therefore, for the purpose of the current study, a small business is described as one that employs between 50 to 200 full-time/part-time workers, has been in operation for at least one year, and has the owner actively engaged in the business. These were the requirements against which SMEs participants in the current study were chosen in South Africa’s Tshwane Metropolitan Municipality.

2.1.3. Non-financial performance indicators

Non-financial performance metrics assess intangible assets and organisational capabilities that contribute to its development. However, these intangible assets are not included in its financial statements; hence, they cannot be assessed in financial terms (Gamayuni & Dewi, 2019). Non-financial performances are metrics used to measure non-financial indicators that are usually qualitative (Haleem & Raisal, 2016). According to Zehir, Gurol, Karaboga & Kole (2016), quality, customer satisfaction, employee satisfaction, and innovation are all examples of qualitative performance, and are essentially tied to the organisation’s culture, environment, people resources, and abstract outputs.

Gamayuni & Dewi (2019) postulate that though non-financial performance metrics are some of the most important aspects of a company’s performance, the calculation of their financial value is challenging as per other intangible assets. Non-financial performance measurements are always closely linked to company strategy and their value also depends on fluctuations in the business environment (Gamayuni & Dewi, 2019).

As pointed out by many researchers, non-financial performance metrics include public image, reputation, human resource quality, client base, brand loyalty, and research and development (R&D) spending. Furthermore, new product growth, capacity to build a competitive position, business focus, and development are examples of non-financial performance measures (Al-Mamary, Alwaheeb, Alshammari, Abdulrab, Balhareth & Soltane, 2020).

Cho and Lee (2018) found that continuous innovation improved non-financial business performance, whereas Abdulrab, Alwaheeb, Al-Mamary, Alshammari, Balhareth, Soltane and Saleem (2022) found that EO has an insignificant effect on non-financial performance.

3. METHODOLOGY

3.1. Research design

Quantitative research was preferred due to its objectivity. Saunders, Lewis & Thornhill, 2016; Park & Park, 2016) report that a quantitative study is unbiased, organised, accurate, and dependable due to reliability and validity testing. Consequently, the quantitative approach was used to collect the necessary data. The quantitative research design was adopted because the goal was to evaluate the impact of risk-taking on the non-financial performance of SMEs. A standard way for determining the relationship between variables is quantitative research. The researcher's reliance on data analysis to acquire results or conclusions is a crucial feature of quantitative research.

3.2. Study Population

In the view of Saunders, Lewis & Thornhill, 2016; Martínez-Mesa, González-Chica, Duquia, Bonamigo & Bastos (2016), the target population of a survey is a complete set of units that the researcher uses to form conclusions. Additionally, the population determines the units to which the survey's results are applied.

The current study limited involvement according to the sector but applied the definition of SMEs as indicated in South Africa's amended National Small Business Act 102 of 1996. SMEs are defined by the criteria of the number of employees, annual revenue, and industry type. As a result, the SMEs must conform to the definition. The population of this study was made up of retail sector SMEs operating in Tshwane Metropolitan Municipality, namely Pretoria North, Pretoria West, Pretoria Central, Arcadia, Sunnyside, Hatfield, and Brooklyn in Gauteng province, which is known to be the economic hub of South Africa (Mlotshwa & Msimango-Galawe, 2020). Regardless of colour, ethnicity, gender, or educational background, SME managers and owners were allowed to participate in this survey.

3.3. Sample and sampling method

In the current study, simple random sampling was utilised to choose a sample by randomly selecting respondents from a sampling frame. Kabir (2016) explicates that the aim of sampling is to estimate the population's limit and to test the hypothesis of the study.

As part of a sample, probability sampling gives a non-zero and available opportunity to contact each member of the chosen target population (Sekaran & Bougie 2016), while non-probability sampling means that the elements have no known or predefined likelihood of being chosen as subjects (Sekaran & Bougie, 2016).

Each of these two key elements has a unique sampling strategy. Different forms of probability and non-probability sampling designs are chosen depending on the degree of generalisability sought, as well as the need for time and other resources, and the goal of the study (Sekaran & Bougie, 2016). A sample of 250 was considered enough.

3.4. Research instrument

The measuring instrument used in the study was adapted from recent literature from previously tested instruments. A questionnaire can be done over the phone in a public place, through an institute, or by email (Lange, Finger, Allen, Born, Hoebel, Kuhnert, Müters, Thelen, Schmich, Varga & von Der Lippe, 2017). The analysis and hypothesis of the study influenced the formulation of the instrument.

The researcher utilised a questionnaire since it would ensure that the data received from respondents would be similar. Furthermore, questionnaire replies could be coded, allowing for data processing. The questionnaires were individually distributed by the fieldworkers to respondents.

Questionnaires have advantages over other types of surveys: they are less expensive than verbal or telephone surveys, they require less work from the questioner and frequently include standardised responses that simplify data collection. Some disadvantages of the questionnaires, as a survey, include question construction and phrasing as other types of opinion polls (Kabir, 2016). Questionnaires also help ensure comparability of the information from various respondents (Sekaran & Bougie, 2016). Questionnaires are inexpensive and take little time to conduct (Saunders, Lewis & Thornhill, 2016).

3.5. Data collection

Self-administered and closed-ended questionnaires were used. Distributed by the fieldworkers to the respondents who completed them without the intervention of an interviewer, these self-administered questionnaires gave the respondents autonomy, enabling more genuine and sincere answers.

The current study employed the primary method of collecting data via a questionnaire administered to retail firms in Tshwane Metropolitan Municipality. Two hundred and fifty (250) self-administered questionnaires were distributed to a sample size of SMEs that form part of the study area. The questionnaire was pre-tested in a pilot study of twenty (20) SME managers/owners. Fieldworkers went from place to place, contacting SME owners/managers who were willing to participate in the study. After a reasonable amount of time, the questionnaires were collected for analysis. All participants completed the permission agreement to ensure that everyone understood that participation in the study was entirely voluntary.

3.6. Data analysis

The first stage in analysing the collected data was examining the questionnaires and eliminating unsuitable ones. The information was then entered into an Excel spreadsheet and coded. The researcher then cleaned the data to detect and correct any missing entries. The researcher then imported the data into the IBM Statistical Package for Social Sciences (SPSS) format.

The descriptive and inferential statistical methods are commonly used in quantitative data analysis to analyse the data (Sekaran & Bougie 2016); the usual types of statistical analysis models are T-

test, Analysis of Variance (ANOVA), and Pearson Correlation Coefficient for testing hypotheses; and Simple Linear Regression for relationships (Pandey, 2015; Shaikh, Pathan & Khoso, 2018).

4. RESULTS AND DISCUSSION

The simple linear regression and the correlation analysis are assessed and discussed. In contrast, Cronbach’s alpha is used to evaluate the internal consistency reliabilities. The linear regression model is outlined with the statistical data and interpreted according to the results.

Table 2: Response Rate

| Respondents | # sent out | # returned | Response rate percentage | # not returned | Non-return percentage |
|-------------|------------|------------|--------------------------|----------------|-----------------------|
| SME owners | 250 | 196 | 78.4% | 54 | 21.6% |

(#) – indicates number.

Descriptive statistics

According to Saunders, Lewis & Thornhill (2016), descriptive statistics refer to a brief descriptive coefficient that summarises a given data set, which can be either a representation of the entire or a sample of a population. A total of five questions were used, where respondents were asked to select the extent to which they agree or disagree with the statement from a five-point Likert scale, where 1 = “Strongly disagree”, 2 = “Disagree”, 3 = “Neutral”, 4 = “Agree”, and 5 = “Strongly agree” (Mankgele, 2021). Table 3 below shows the descriptive results of the construct of risk-taking.

| CONSTRUCTS | MEAN | STANDARD DEVIATION |
|--------------------|-------------|--------------------|
| RISK-TAKING | 4.40 | 0.689 |
| RT1 | 4.13 | 0.952 |
| RT2 | 4.29 | 0.884 |
| RT3 | 4.49 | 0.781 |
| RT4 | 4.54 | 0.674 |
| RT5 | 4.56 | 0.673 |

Table 4 below shows the descriptive results of the construct of non-financial performance.

| CONSTRUCTS | MEAN | STANDARD DEVIATION |
|----------------------------------|-------------|--------------------|
| NON-FINANCIAL PERFORMANCE | 4.28 | 0.702 |
| NPF1 | 4.74 | 0.647 |
| NPF2 | 4.65 | 0.704 |
| NPF3 | 4.58 | 0.743 |
| NPF4 | 4.55 | 0.753 |
| NPF5 | 2.89 | 1.467 |

Scale reliability

The Cronbach’s alpha criteria were used to assess the scale reliability of the questionnaire items. In general, the scale reliability test was performed to ascertain and evaluate the internal consistency of the measuring instrument as used in previous research (Shava, Chinyamurindi & Somdyala,

2016). For all the constructs, a construct composite reliability coefficient (Cronbach alpha) of 0.7 or above was considered adequate in this study (Hargreaves & Mani, 2015; Taber, 2018).

Higher values generally indicate higher levels of reliability. According to Taber (2018), reliability alpha values were described as excellent (0.93–0.94), strong (0.91–0.93), reliable (0.84–0.90), robust (0.81), fairly high (0.76–0.95), high (0.73–0.95), good (0.71–0.91), relatively high (0.70–0.77), slightly low (0.68), reasonable (0.67–0.87), adequate (0.64–0.85), moderate (0.61–0.65), satisfactory (0.58–0.97), acceptable (0.45–0.98), sufficient (0.45–0.96), not satisfactory (0.4–0.55) and low (0.11).

As far as the variable of risk-taking is concerned, with its five items, it scored a reliability value alpha of 0.913, while non-financial performance, with its five items, scored a reliability value alpha of 0.825.

Correlation analysis

Table 5: The correlation between risk-taking & financial and non-financial performance

| | | Risk-taking | Non-Financial Performance |
|----------------------------------|---------------------|-------------|---------------------------|
| Risk-taking | Pearson Correlation | 1 | .192** |
| | Sig. (2-tailed) | | .007 |
| | N | 196 | 196 |
| Non-Financial Performance | Pearson Correlation | .192** | 1 |
| | Sig. (2-tailed) | .007 | |
| | N | 196 | 196 |

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5 points out a significant positive correlation between risk-taking and non-financial performance, which is highlighted with (r=0.192, p=.007).

Regression analysis

Table 6: Regression analysis between risk-taking and non-financial performance

| | Unstandardised Coefficients | | Standardised Coefficients Beta | t | Sig. |
|-------------|-----------------------------|------------|--------------------------------|--------|-------|
| | B | Std. Error | | | |
| (Constant) | 3.420 | .320 | | 10.695 | <.001 |
| Risk-Taking | .195 | .072 | .192 | 2.723 | .007 |

Dependent Variable: Non-financial performance

Table 6 above shows regression analysis results between risk-taking and non-financial performance (B= 0.192, sig= 0.007). Based on the confidence interval of 95% and Sig.>0.05, this led to the decision to accept the hypothesis set above. The value of t statistics for the 5% significance level is 1.96. The observed t-value of 2.723 was higher than the critical t-value of ± 1.96; therefore, the results support the hypothesis that there is a significant and positive relationship between risk-taking and the non-financial performance of retail SMEs.

5. CONCLUSION

The Pearson correlation was used to analyse the correlation between risk-taking and non-financial performance. Linear regression was used to calculate the value of a dependent variable from an independent variable. The results also discovered a positive and statistically significant relationship between the variable of risk-taking and the non-performance of retail SMEs.

The hypothesis that there is a significant relationship between risk-taking and the non-financial performance of retail SMEs is accepted. This is consistent with studies by Alvarez-Torres, Lopez-Torres, and Schiuma (2019) and Kosa, Mohammad and Ajibie (2018), which showed that risk-taking significantly impacts the performance of SMEs and positive correlations between risk-taking and business performance. Okangi (2019) states, “Entrepreneurship does not entail reckless decision-making, but reasonable awareness of the risks and being able to calculate and manage these risks”.

6. RECOMMENDATIONS

It is recommended to proceed with caution when interpreting the data, suggesting that risk-taking and autonomy have a moderately positive significant impact on performance; in contrast, risk-taking and autonomy may be significant, but they have a positive effect on performance. As a result, SMEs should concentrate more on taking more voluntary risks and acting with greater freedom to improve their company’s success.

REFERENCES

- Abe, I. I. and Mason, R., 2016. *The role of individual interpersonal relationships on work performance in the South African retail sector*.
- Abdulrab, M., Alwaheeb, M.A., Al-Mamary, Y.H., Alshammari, N.G., Balhareth, H., Soltane, H.B. and Saleem, I., 2022. Effect of entrepreneurial orientation and strategic orientations on financial and nonfinancial performance of small and medium enterprises in Saudi Arabia. *Journal of Public Affairs*, 22(2), pp. e2305.
- Al Asheq, A. and Hossain, M.U., 2019. SME performance: Impact of market, customer, and brand orientation. *Academy of Marketing Studies Journal*, 23(1), pp.1-9.
- Al-Dhaafri, H. S., Al-Swidi, A. K. and Yusoff, R. Z. B., 2016. The mediating role of total quality management between the entrepreneurial orientation and the organizational performance. *The Total Quality Management Journal*, 28(1), 89-111
- Al-Mamary, Y. H., Alwaheeb, M. A., Alshammari, N. G. M., Abdulrab, M., Balhareth, H. and Soltane, H. B., 2020. The effect of entrepreneurial orientation on financial and non-financial performance in Saudi SMES: a review. *Journal of Critical Reviews*, 7(14), 270-278.
- Alvarez-Torres, F.J., Lopez-Torres, G.C. and Schiuma, G., 2019. Linking entrepreneurial orientation to SMEs’ performance: Implications for entrepreneurship universities. *Management Decision*, 57(12), pp.3364-3385
- Arisi-Nwugballa, E.A., Elom, M.E. and Onyeizugbe, C.U., 2016. Evaluating the relevance of entrepreneurial orientation to the performance of micro, small and medium enterprises in Ebonyi

-
- State, Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Science*, 6(3), 222-234.
- Aye, G.C., Balcilar, M., Gupta, R. and Majumdar, A., 2015. Forecasting aggregate retail sales: The case of South Africa. *International Journal of Production Economics*, 160, pp.66-79.
- Battersby, J., Marshak, M. and Mngqibisa, N., 2016. *Mapping the informal food economy of Cape Town, South Africa (No. 5)*. Cape Town. Retrieved from www.hungrycities.net.
- Campbell, M., 2017. South African supermarket expansion in sub-Saharan Africa. *Third World Thematics: A TWQ Journal*, 1(5), pp.709–725.
- Cannavale, C. and Nadali, I. Z., 2018. Entrepreneurial orientations and performance: a problematic explanatory approach in the Iranian knowledge-based industry. *The Journal of Entrepreneurship*, 28(1), pp.68-93.
- Cho, Y.H. and Lee, J.-H. 2018, Entrepreneurial orientation, entrepreneurial education and performance. *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 12 No. 2, pp. 124-134. <https://doi.org/10.1108/APJIE-05-2018-0028>
- Duru, I. U., Ehidihamen, P. O. and Chijioke, A. N., 2018. Role of entrepreneurial orientation in the performance of small and medium enterprises: Evidence from Federal Capital Territory, Abuja, Nigeria. *Asian Journal of Economics, Business and Accounting*, 1-21.
- Dzomonda, O. and Fatoki, O., 2019. Evaluating the impact of organisational culture on the entrepreneurial orientation of small and medium enterprises in South Africa. *Bangladesh e-Journal of Sociology*, 16(1), pp.82-94.
- Gamayuni, R.R. and Dewi, F.G., 2019. The effect of incentives and non-financial performance on managerial performance. *International Research Journal of Business Studies*, 12(1), pp.41-54.
- Greenberg, S., 2015. *Corporate concentration and food security in South Africa: Is the commercial agro-food system delivering? (Rural Status Report No. 1)*. Cape Town. Retrieved from [http://www.plaas.org.za/sites/default/files/publications-pdf/PLAAS Rural Report Book 1 - Stephen - Web.pdf](http://www.plaas.org.za/sites/default/files/publications-pdf/PLAAS_Rural_Report_Book_1_-_Stephen_-_Web.pdf)
- Government Communication and Information System (GCIS), 2019. *National Small Business Amendment Act 29 of 2004*. Republic of South Africa. Available at https://www.gov.za/sites/default/files/gcis_document/201903/423041gon399.pdf [Accessed 23 April 2023]
- Haleem, A. and Raisal., I., 2016. The study of the influence of information technology sophistication on the quality of accounting information system in bank branches at Ampara District, Sri Lanka. *6th International Symposium*. Southeastern University of Sri Lanka
- Kabir, S. M. S., 2016. *Basic guidelines for research. an introductory approach for all disciplines*, 168-180.
- Kallmuenzer, A. and Peters, M., 2018. Entrepreneurial behaviour, firm size and financial performance: the case of rural tourism family firms. *Tourism Recreation Research*, 43(1), pp.2-14.
- Kallmuenzer, A., Strobl, A. and Peters, M., 2018. Tweaking the entrepreneurial orientation–performance relationship in family firms: the effect of control mechanisms and family-related goals. *Review of Managerial Science*, 12(4), pp.855-883.
-

-
- Ključnikov, A., Civelek, M., Cera, G., Mezulánik, J. and Maňák, R., 2020. *Differences in entrepreneurial orientation (EO) of SMEs in the international context: evidence from the Czech Republic and Turkey*. *Engineering Economics*. <https://doi.org/10.5755/j01.ee.31.3.23933>
- Kosa, A., Mohammad, I. and Ajibie, D., 2018. Entrepreneurial orientation and venture performance in Ethiopia: the moderating role of business sector and enterprise location. *Journal of Global Entrepreneurship Research*, 8(1), pp.1-17.
- Kurtulmuş, B.E. and Warner, B., 2015. Entrepreneurial orientation and perceived financial performance. Does environment always moderate EO performance relation. *Procedia-Social and Behavioral Sciences*, 207, pp.739-748.
- Lawal, F.A., Adegbuyi, O.A., Iyiola, O.O., Ayoade, O.E. and Taiwo, A.A., 2018. Nexus between informal networks and risk-taking: Implications for improving the performance of small and medium enterprises (SMEs) in Nigeria. *Academy of Strategic Management Journal*, 17(2), pp.1-14.
- Lange, C., Finger, J.D., Allen, J., Born, S., Hoebel, J., Kuhnert, R., Müters, S., Thelen, J., Schmich, P., Varga, M. and von Der Lippe, E., 2017. Implementation of the European health interview survey (EHIS) into the German health update (GEDA). *Archives of Public Health*, 75(1), pp.1-14.
- Malgas, B., Sibotshiwe, L., Anderson, C.S., Mutize, M. and Mason, R.B., 2020. *Casualisation of labour in the south African retail sector*.
- Mandipa, G. and Sibindi, A.B., 2022. Financial performance and working capital management practices in the retail sector: empirical evidence from South Africa. *Risks*, 10(3), pp.63.
- Martínez-Mesa, J., González-Chica, D.A., Duquia, R.P., Bonamigo, R.R. and Bastos, J.L., 2016. Sampling: how to select participants in my research study? *Anais brasileiros de dermatologia*, 91, pp.326-330.
- Masojada, M., 2021. The South African retail landscape. *Marketing to South African Consumers*, pp.87-109.
- Mason, M., 2018. Sample size and saturation in PhD studies using qualitative interviews. *Forum Qualitative Social Research*, 11(3):8.
- Mlotshwa, S.H. and Msimango-Galawe, J., 2020. The risk of overvaluing networking on small and medium enterprises performance in Gauteng province, South Africa. *The Southern African Journal of Entrepreneurship and Small Business Management*, 12(1).
- Ngepah, N., 2019. *Inequality of value and gender (dis) empowerment along the horticultural value chain in South Africa: The role of supermarkets and other big players*.
- Njoroge, G., 2015. *The impact of corporate entrepreneurship on financial performance of firms: evidence from Kenya's banking industry*. Master's. United States International University-Africa.
- Ntloedibe, M., 2017. *South Africa retail food industry (Retail foods)*. Pretoria. Retrieved from [https://gain.fas.usda.gov/Recent GAIN Publications/Retail Foods_Pretoria_South Africa - Republic of_11-7-2017.pdf](https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Retail%20Foods_Pretoria_South%20Africa_-_Republic_of_11-7-2017.pdf).
- Okangi, F. P., 2019. The impacts of entrepreneurial orientation on the profitability growth of construction firms in Tanzania. *Journal of Global Entrepreneurship Research*, 9(1), 1-23.
-

-
- Olubiyi, Egwakhe, Amos, and Ajayi., 2019. *Entrepreneurial orientation and firm profitability: evidence from Lagos State Nigeria*.
- Organisation for Economic Co-operation and Development (OECD) Staff. 2017. *OECD skills outlook 2017: Skills and global value chains*. Paris: OECD.
- Qamruzzaman, M. and Jianguo, W., 2019. SME financing innovation and SME development in Bangladesh: An application of ARDL. *Journal of Small Business & Entrepreneurship*, 31(6), pp.521-545.
- Pandey, R.M., 2015. Commonly used t-tests in medical research. *Journal of the Practice of Cardiovascular Sciences*, 1(2), pp.185.
- Park, J. and Park, M., 2016. Qualitative versus Quantitative research methods: discovery or Justification? *Journal of Marketing Thought*, 3(1), pp.1-7.
- Peyton, S., Moseley, W. and Battersby, J., 2015. Implications of supermarket expansion on urban food security in Cape Town, South Africa. *African Geographical Review*, 34(1), 36-54.
- Pratono, A.H., 2018. Does firm performance increase with risk-taking behavior under information technological turbulence? Empirical evidence from Indonesian SMEs. *The Journal of Risk Finance*.
- Ribeiro-Soriano, D., 2017. Small business and entrepreneurship: Their role in economic and social development. *Entrepreneurship & Regional Development*, 29(2), pp.1-3.
- Saunders, M., Lewis, P. & Thornhill, A., 2016. *Research methods for business students*. 7th ed. England: Pearson Education.
- Sekaran, U. & Bougie, R., 2016. *Research methods for business: A skill-building approach*. Seventh Edition. Chichester, West Sussex: John Wiley & Sons.
- Shaikh, S.H., Pathan, S.K. and Khoso, I., 2018. The impact of extrinsic motivation on employees' performance: A comparative analysis of food and textile industries in Sindh, Pakistan. *International Business Research*, 11(12), pp.61-66.
- Skinner, C., 2016. *Informal food retail in Africa: A review of evidence (Consuming Urban Poverty Project Working Paper No. 2)*. Cape Town.
- Sibindi, A. B. and Aren, A. O., 2015. *Is good corporate governance practice the panacea for small-to-medium businesses operating in the South African retail sector?*
- Statistics South Africa. 2021. *Quarterly labour force survey*. Statistics South Africa.
- Stats, S. A. 2022. *Standard industrial classification of all economic activities*. Available from: https://www.statssa.gov.za/additional_services/sic/mdvdvmg6.htm#62 [Accessed 23 July 2022]
- Zehir, C., Gurol, Y., Karaboga, T. and Kole, M., 2016. Strategic human resource management and firm performance: The mediating role of entrepreneurial orientation. *Procedia-Social and Behavioral Sciences*, pp.235, 372-381.
-

SSIRC 2023-098**CHANGING RISK CULTURE: INSIGHTS FROM EMPLOYEES BEFORE IMPLEMENTING LEAN MANUFACTURING AT A SOUTH AFRICAN CHEMICALS PLANT****J.F. Goede**

North-West University, South Africa

R.S. Nair

North-West University, South Africa

ABSTRACT

A conducive company culture to adopt change is commonly cited in the academic literature as a prerequisite for a successful change initiative. The South African chemical producer in this study recently adopted lean manufacturing as an improvement strategy, where past failure with a similar change initiative occurred. The study was conducted prior to the intervention and aimed to determine if the risk culture is amenable to bring change in the organisation. The objectives of this study were to ascertain the perceptions of both management and front-line employees about change risk culture, determine the perceived level of comfort with individual change risk roles and recommend organisational improvements. An online survey was administered yielding useful responses from 518 employees, generating a response rate of 36% (n = 188) after eliminating contractors and functions. Tests for significance between the management and front-line groups were performed. The risk culture perceptions of management indicated more optimism to welcome change than the front-line employees. Management was also found to be more comfortable with their own change risk roles than the front-line employees. This gap between management and front-line worker perceptions on change in the organisation, appears to be at the core of unsuccessful change interventions in the past. To improve the change risk culture, 80% of suggestions by the participants recommended the understanding of change risk, communication, risk role, leadership, accountability, and rewards that require attention. Furthermore, we present a risk culture improvement plan for the company using change management principles to increase the successful roll-out of management interventions in future.

KEYWORDS: change management; organisational change; questionnaire survey**1. INTRODUCTION**

Organisations face numerous challenges ranging from losing market share to competitors, rising commodity prices, complying with stricter health, safety, and environmental regulations, to an increasing reliance on automation and the use of technology. Consequently, these entities seek to innovate through continuous improvement, thus placing an emphasis on change. A suitable culture is essential to achieve a successful and sustainable change initiative (Alves & Alves, 2015). One such initiative is lean manufacturing, an operational strategy adopted by organisations for business improvement, which requires a conducive culture to succeed (Alhuraish et al., 2017; Iranmanesh

et al., 2019; Zhang et al., 2017). The chemical manufacturer considered in this study continuously pursues innovation by implementing changes to processes and systems. To this end, the company embarked on a lean manufacturing programme at the end of 2017 with the aim of achieving sustainable performance whilst empowering management and front-line employees. Previously in 2009, the Toyota Production Management (TPM) system, which is a similar continuous improvement change initiative, was launched by the same chemical manufacturer. However, despite four years of attempted implementation, TPM failed to be applied consistently, for reasons unknown and not investigated.

Waddell and Sohal (1998) indicated that organisational change initiatives are typically evaluated based on their consequences, which of course are not guaranteed to be known until the initiative is completed and adequate time has passed. This suggests that, inevitably, uncertainty is involved, implying that the management of risk associated with change initiatives is vital. Risk management is a key process that allows organisations to achieve their strategic objectives by improving the decision-making involved in the handling of risks (Aven, 2016; Clarke & Varma, 1999).

Significant efforts are made by organisations to quantify a variety of risks with intricate models, although cultural and behavioural aspects are still intangible (Roeschmann, 2014). Following the 2008-9 financial crises, regulatory bodies and financial institutions started to ascertain that risks that were handled poorly had more to do with culture and behaviour as opposed to limitations in formal risk management systems. This led to the acknowledgement of the value of a sound risk culture in organisations. Elements of a sound risk culture, especially in the financial sector, have been widely discussed (FSB, 2014; Palermo et al., 2017; Ring et al., 2016).

Despite the increasing awareness of risk culture and the plethora of literature indicating that a sound culture is critical to ensure a successful change initiative such as lean manufacturing, there is sparse academic and practitioner knowledge on the risk culture associated with change initiatives. The chemical manufacturer considered in this study places huge emphasis on change initiatives and yet has experienced inconsistencies in their adoption by the organisation in the past. Although perceived to be beneficial, lean manufacturing at organisations has a low success rate of 10% (Bhasin, 2012; Dorval et al., 2019; Paro & Gerolamo, 2017; Zhang et al., 2017). For these reasons, understanding the change risk culture at the chemical manufacturer in this research was crucial.

The research questions addressed in this study therefore were:

- How do the perceptions of change risk culture compare between the management and front-line employee groups?
- How do the management and front-line employee groups compare regarding comfort with change risk roles?
- What are the improvement areas in the change risk culture that the chemical manufacturer could consider implementing change more successfully?

The primary objective of this study was therefore to identify if there were differences in perceptions of change risk culture as well as comfort with their change risk roles between

management and front-line personnel. Second, the study sought to recognise the areas where the company could focus to improve the risk culture associated with change initiatives. Similar to the top-down implementation approach of the TPM system, this study postulates that the change risk culture perceptions, as well as comfort with their own change risk roles of management, indicate more optimism to introduce and accommodate change than experienced by the front-line personnel (Loyd et al., 2020). To achieve these research goals, a survey was conducted by a questionnaire distributed to the management and front-line groups to evaluate the status of risk culture at the company.

2. LITERATURE REVIEW

2.1 Organisational culture, risk management and risk culture

Studies of organisational culture date back many decades. Pettigrew (1979) discussed aspects that need to be considered in the creation of organisational culture. Among them are factors such as commitment and purpose that are created through feelings and actions of individuals. Culture is defined as the “*collective programming of the mind that distinguishes the members of one group or category of people from others*” (Hofstede, 2011). He also explained that organisational cultures are visible through actions and practices, which provides a sense of what is going on in the workplace. Prajogo and McDermott (2005) specified organisational culture as the shared beliefs and values amongst individuals which lead to the behaviours and practices that are observable. The performance of a company is critically influenced by organisational culture (Paro & Gerolamo, 2017).

Organisations that perform better than others are said to align their culture with their strategy (Pakdil & Leonard, 2015). Numerous studies have been conducted to understand the role that culture plays in organisations, some of which focus on the dimensions and nature of organisational culture (Bortolotti et al., 2015).

Risk management as a discipline has a history of some forty years, with most academic studies discussing the fundamentals on how to assess and manage risk (Aven, 2016). Companies have to face a raft of interrelated risks relating to their operations, and supply chain, as well as environmental, financial and political issues (Boultwood & Dominus, 2014). These authors highlighted the need for organisations to equip each employee to recognise and respond to risk, thereby establishing a culture that is more risk aware. According to Roeschmann (2014), significant effort goes into the quantitative modelling of risks and establishing risk management frameworks, yet the cultural and behavioural aspects are the least understood. Suddaby (2010) indicated that definitions are key to capturing the characteristics of a concept. The definition for risk culture coined by the Centre for Applied Risk Management (UARM) of North-West University (NWU) will be used in this study (Zaaiman et al., in progress), namely, “The level of explicit inclusion of risk in decision-making represents the implicit, subjective value afforded to risk by the group. Risk culture of an organisational group is manifested by the importance given to considering risk when the group makes decisions.”

Interest has been shown by regulatory bodies such as the Financial Stability Board to improve the risk culture of banks, thereby creating value through more effective risk management (Carretta et

al., 2017). Indicators of a sound risk culture – such as tone from the top, accountability, effective communication, and challenge and incentives – have been proposed for institutions to consider when reviewing risk culture (FSB, 2014). Domańska-Szaruga (2020) alluded to the use of continuous improvement models to develop or improve risk culture. The evaluation of the baseline risk culture status of an organisation was specified as an initial step in this improvement process (Bennett et al., 2020). According to Sheedy et al. (2017), little is revealed in the academic literature on the attitudes or perceptions of employees toward risk-related matters. Practitioners, on the other hand, devise methods of obtaining information pertaining to the risk climate or risk environment with surveys (APRA, 2016; CRO, 2015; Deloitte, 2012; KPMG, 2018; Levy et al., 2010). Both academics and practitioners use the terms climate and culture interchangeably (Casey et al., 2017). The term culture is used for the purposes of this study. For support, organisations should engage with consulting, audit and research-related institutions with a vested interest in these matters as this would minimise subjective evaluations from self-assessments (Domańska-Szaruga, 2020).

Despite risk culture gaining prominence since the 2008-9 financial crisis, the concept is certainly not new. According to Ashby et al. (2012), it can be traced back to the 1980s and to Piper Alpha, an oil platform in the North Sea that exploded with extensive loss of life and was one of the worst industrial disasters the world had then witnessed. Moreover, safety culture has been discussed in the literature for decades (Carroll, 1998; Nordlöf et al., 2017; Strauch, 2015; Vierendeels et al., 2018). More recently, with organisations experiencing cyber-related attacks, the culture associated with how information and data are handled is gaining attention (Munteanu & Fotache, 2015; Nasir et al., 2019; Tang et al., 2016). With global uncertainty, organisations are obliged to make changes to their strategic operating models for purposes of sustainability. How culture supports organisational change now needs to be discussed.

2.2 Lean manufacturing and organisational change

An operational strategy adopted by organisations to improve business that requires a conducive culture, is lean manufacturing (LM) (Alefari et al., 2017; Alhuraish et al., 2017; Iranmanesh et al., 2019; Sreedharan et al., 2018; Zhang et al., 2017; Zuliyanti et al., 2017). The roots of LM stem from the operating philosophy of the Toyota Motor Corporation in Japan (Alves & Alves, 2015). According to Scherrer-Rathje et al. (2009), the abundance of academic literature on LM as well as its industry-wide adoption indicates the value-add of this improvement strategy. LM focuses on adding value to the final product by minimising waste and delivering quality product on time, through the involvement and empowerment of employees (Mor et al., 2018). Waste is generally known as anything that exceeds the minimum required amounts (Bonavia & Marin Juan, 2006), examples of which include overproduction, excess raw material stock, exceeding standard production time, equipment-related breakdowns, quality defects and needless activities to complete a task (Randhawa & Ahuja, 2017).

Despite its potential benefits, the adoption of LM faces many challenges, with a success rate of only 10% (Dorval et al., 2019). There is a common misconception of equating LM to the tools that can be used for process and efficiency improvement. According to Mann (2009), only 20% of LM implementation is based on the tools, whereas the remaining 80% focuses on behaviours and

practices, that is, the way things are done. This is reciprocated in terms of Toyota's success with TPM, through the fostering of a sound culture on all organisational levels (Loyd et al., 2020). The authors indicated that management at Toyota viewed front-line employees as highly knowledgeable and crucial to the process of continuous improvement. Management was said to be more inclusive by engaging with the workforce. This level of engagement between management and front-line employees and "sound culture" is perhaps a critical aspect that other companies including the chemical manufacturer in this study may have failed to consider. "*The effect of uncertainty on objectives*" is defined as risk (ISO, 2009). In the study reported here, LM is considered as an example of change that introduces risk and uncertainty, which in turn needs to be managed accordingly.

2.3 Similarities between risk culture and lean manufacturing

The increasing awareness of risk culture in financial organisations as well as change initiatives including continuous improvement in other industries can be attributed to problems such as sub-standard practices, rising competition and major incidents (Ashby et al., 2012). Numerous studies have discussed the critical success factors pertaining to LM implementation (Alhuraish et al., 2017; Sreedharan et al., 2018; Zhang et al., 2017; Zuliyanti et al., 2017). The Risk Culture Scale, elaborated in the Method section of this paper, was adopted to assess the change risk culture which has not yet been established at the chemical manufacturer in this study. It is possible that management personnel at the company studied perceive the risk culture and their change risk roles to be adequate for introducing new initiatives, whereas the front-line employees may have other views.

2.4 The chemical manufacturer

This research study was performed at the primary production facility of a South African chemicals company listed on the JSE Ltd. The core business is the manufacturing and delivering of a diverse range of granular and liquid chemical products for the agriculture, mining and chemical sectors in South Africa as well as foreign markets. The chemical manufacturer is not immune to factors that threaten its sustainability. External variables such as growing competition and rising commodity prices as well as internal issues such as safety incidents and inconsistent production forced the leaders in the organisation to alter the manufacturer's operational strategy, with LM being adopted for business improvement. This study has proved to be crucial in understanding the change risk culture at the company to potentially ensure that both current and future change initiatives are sustainable and successful.

3. METHODOLOGY

3.1 Study type

This questionnaire survey-based quantitative study aimed to establish the perceptions of change risk culture at the organisation under consideration. A survey proved to be practical considering the time limitations, ease of administration and the ability to reach a relatively large study population (Ha & Zhang, 2019).

3.2 Participants and procedure

The target population for the study was the company's workforce of 518 employees, which excluded the contractors. Contractors at operator level were omitted from the study due to their inadequate English language proficiency and low levels of education. The sample was spread across the various functional departments of the company, namely, General Management, Human Resources, Finance, Operations, Maintenance, Engineering, and Health, Safety, Environment and Compliance (HSEC).

In practice, 188 responses were received from the survey, corresponding to a 36% response rate, which is above the acceptable minimum response rate of 34% (Shih & Fan, 2008). In total, 185 responses were included in the Factor 1 inferential analysis and 184 responses were included in the Factor 2 inferential analysis. For Factor 1, three respondents and for Factor 2, four respondents provided more than 30% "I do not know" responses. The three employee categories used for statistical analyses of the respondents' answers were company management, contractor management, and company non-management.

3.3 Survey instrument

As part of the larger UARM risk culture research programme, the Risk Culture Scale (UARM RCS-2019) (Zaaiman et al., in progress) was used to collect the data. The generic RCS, which was slightly customised for the purposes of this study, works as follows. The word "risk" in the items were replaced with the words "change risk" to focus the participants' attention on that specific type of risk. The scale comprises two sections, the first containing two items related to demography and the second featuring 42 items related to change risk culture.

The first demographic question, "How well do you understand English?", with response options: 1 = "Very poorly", 2 = "Poorly", 3 = "Reasonably well", 4 = "Well", 5 = "Extremely well", was posed to ascertain the participants' grasp of the English language, thereby allowing for potential improvement in future research to accommodate those with lower levels of understanding. The second demographic question was, "What is your current function in the organisation?", with response options ranging across all job roles. The functions from "Director" to "Foreman" form part of the management group, whereas the remaining functions represent the front-line employees.

Two ranges of response options were provided for the other 42 items in the form of a five-point Likert scale, depending on the type of item:

- 1 = "Never", 2 = "Infrequently", 3 = "Sometimes", 4 = "Usually", 5 = "Always".
- 1 = "Not at all", 2 = "Not well", 3 = "Moderately well", 4 = "Well", 5 = "Perfectly".

A sixth option, "I do not know" or "I do not understand the statement", was also provided for each item to cater for participants who had limited knowledge or opinion on an item. This would potentially reduce response bias, that is, having to select either side of the response spectrum (Croasmun & Ostrom, 2011). The UARM RCS-2019 has been refined and piloted over 4 years (2016–2019). The 2019 version of the scale showed a high Cronbach α reliability coefficient of 0.97 (internal consistency). The scale measures two risk culture-related factors:

- Factor 1: Risk culture as defined in UARM – Perceived level of integration of risk in decision-making processes (24 items).
- Factor 2: Diagnostic factor – Comfort with own risk management role (18 items).

Furthermore, the following diagnostic items were also included:

- “All identified change risks are reviewed regularly to ensure that the risks are addressed effectively” with response options: 0 = “I do not know”, 1 = “Never”, 2 = “Infrequently”, 3 = “Sometimes”, 4 = “Usually”, 5 = “Always”.
- “The organisation allows sufficient time to embed change initiatives such as lean manufacturing” with response options: 0 = “I do not know”, 1 = “Strongly disagree”, 2 = “Disagree”, 3 = “Agree”, 4 = “Strongly agree”.

This study was conducted at the primary production facility of a South African chemical manufacturer with a global footprint. The facility comprises 893 full-time employees who include contractors and support functions. In the end, only 518 participants received the questionnaire. Kothari (1990, p. 19) advocated that purposive sampling is a technique in which the researcher deliberately selects a portion of the population to constitute the sample. This method was used to select management and the front-line employees in the production, supply chain and engineering departments as they are involved in risk-related activities and participate in change initiatives. However, departments such as Human Resources, Information Technology, Finance, Security, and Administration were not included in the scope of this study as they are not the main target of change initiatives.

Baruch and Holtom (2008) suggested that an acceptable survey response rate in studies of organisations is around 36%, albeit primarily based on United States data. An acceptable response rate of 13% was identified from organisational surveys in India (Krishnan & Poulouse, 2016). These authors also discussed the potential influence that national culture has on response rates. A greater power distance (felt between management and other employees) was said to result in lower response rates. In a South African context, the power distance index is around 50, placing it between the United States with 40 and India with around 75 (Hofstede et al., 2010, p. 103). Considering this relationship, an acceptable response rate in this study would be anywhere between 13% and 36%. This study yielded a response rate of 36%, which is deemed to be adequate.

3.5 Data collection and analysis

The online scale was delivered via Research.net (SurveyMonkey’s professional plan). Data gathering was conducted by UARM, and the data sets were housed and analysed by UARM. After NWU ethics clearance for the study and formal permission was obtained from the company to apply the scale, the measure was customised by the researcher for the study. A weblink to the scale was distributed via e-mail and text message by a human resources business partner. Dewaele (2018, p. 281) advised performing pilot tests whereby a small group of participants can provide critical feedback in respect of questionnaire layout, intelligibility, and logic. A pilot study was therefore conducted for improvement suggestions. In addition, no technical glitches were reported having been faced by the pilot group when accessing the link. Thereafter, as part of the official

research project, the link to the questionnaire was distributed and left open for a period of four weeks (9–29 July 2020) and was closed after a maximum of two reminders were issued to intended participants to complete the survey. The survey was conducted during uncertain times in the organisation, due to the global COVID-19 pandemic and company turnaround with restructuring. The restructuring process spanned three months, ending on 16 August 2020, with a phased recruitment approach starting with senior management and ending with the operators in the front-line teams.

Statistical analysis of the UARM RCS-2019 survey responses was performed using SAS®. Descriptive statistics such as frequencies and percentages were recorded on the demography-related responses to determine the response rates of the study groups. The study's "Very poorly" and "Poorly" responses to the "How well do you understand English?" demography question was analysed to identify the members of the respondent sample who may have found some concepts in the questionnaire challenging to understand. Factor analysis was incorporated in the development of the instrument scale. Tests for data normality were applied as part of the test selection process. Normality of the score distributions could not be assumed, so that statistically significant differences were identified using non-parametric tests. Significant differences between groups were tested at the 95% significance level, using the non-parametric Mann–Whitney U test when comparing two groups. The results from this analysis were interpreted by the researcher allowing for deductions to be made on the study objectives. The study's "I do not know" and "I do not understand the statement" answers were analysed separately.

3.6 Ethical considerations

The study was conducted after approval was provided by the NWU Faculty of Economics and Management Sciences ethics committee (ethics approval number NWU-00708-20-A4) and the chemical manufacturer facility's operational director. Standard ethics requirements for use of questionnaires such as anonymous data capturing, ensuring voluntary participation, right to withdraw from the survey, safe data storage and consent were obtained.

4. RESULTS AND DISCUSSION

The results of this study are discussed in the following order: respondent demographics, change risk culture factor refinement, questionnaire reliability, change risk culture factor scores, the "I do not know" and "I do not understand" responses, diagnostic item analysis, and the change risk culture improvement suggestions as provided by the participants.

4.1 Demographics of study respondents

A total of 518 management and front-line employees were requested to partake in the survey, with 188 completing the questionnaire, resulting in an overall response rate of 36%. This is deemed as acceptable in a South African organisational context, with an overall response rate of between 13% and 36% being targeted for this study. Only five respondents (2.3%), all from the front-line group, indicated that they had relatively low levels of understanding of English. Although the 2.3% is not significant to warrant an intervention, there exists the possibility that certain terms used in the scale may not have been understood by some respondents. Despite 11 official languages in South Africa, the business language at the company is English, with procedural documents and meetings

written and conducted in the language. English was therefore acceptable for the purposes of a survey.

4.2 Change risk culture factor refinement

The UARM RCS-2019 and associated factor measures, discussed in the Methodology section, are based on the larger risk culture research programme of North-West University. Factor analysis performed on this study's sample data reduced the total number of useful survey items from 42 to 29. Two factors were generated: Factor 1 measured the perception of change risk culture and Factor 2 measured the comfort with own change risk role; 13 items were derived for Factor 1, whereas 16 items were obtained for Factor 2. The "I do not know" answers were not included in the scale's factor analysis, and only participants with fewer than 30% of the "I do not know" answers (per factor) were included in the calculation of the factor scores. This means that the participants had to answer at least 9 of the items in Factor 1 and 11 items in Factor 2 to be included in the calculation of the factor score.

4.3 Questionnaire reliability

The PROC CORR procedure in SAS® was used to test for reliability. A Cronbach alpha of 0.98 indicated the high reliability of the scale for the sample studied.

4.4 Change risk culture factor scores

The change risk culture factor scores were obtained by calculating the average of the responses over the items. Factor 1, serving as the measure for the perception of change risk culture, was 3 for all participants whereas that for Factor 2, measuring the comfort with own change risk role, was 3.2. The factor scores per respondent group are shown in Table 1. Based on the scale developed by Zaiman et al. (in progress), both management and front-line groups indicated a medium level of integration of risk in decision-making (risk culture) with scores of 3.4 and 2.9, respectively. Management had a high level of comfort with their change risk roles (3.8) when compared to the medium level of comfort (3.1) shown by the front-line employees. The difference in comfort with own change risk roles could be attributed to the lack of clarity in responsibilities among the front-line employees.

Table 1: Factor scores for the respondent groups

| Study group | Factor scores | |
|-------------|---------------|----------|
| | Factor 1 | Factor 2 |
| Management | 3.4 | 3.8 |
| Front-line | 2.9 | 3.1 |

Tests for data normality using the PROC UNIVARIATE procedure in SAS® were also performed to gauge how the factor scores were distributed for the two groups. The data illustrate a positively skewed distribution of the Factor 1 scores, with scores indicating a slight tendency towards the left of the scale. The Factor 2 scores were also distributed unevenly.

Since the parametric assumption of normality did not hold true, the use of a non-parametric test was required to test for significant differences between the two study groups' distributions. The

Mann–Whitney U test was performed using the PROC NPAR1WAY procedure in SAS®. The following hypotheses were tested:

- $H1,0$: There are no differences in the risk culture perceptions between management and front-line groups.
- $H1, A$: The risk culture perceptions of management indicate more optimism to introduce and accommodate change than experienced by the front-line personnel.
- $H2,0$: There are no differences in comfort with own change risk roles between management and front-line groups.
- $H2, A$: Management are more comfortable with their own change risk roles than the front-line personnel.

The underlying assumption behind the alternative hypotheses ($H1,A$ and $H2,A$) is that management personnel generate and drive strategies for change such as the TPM system, although it is the front-line personnel who are affected by the change (Loyd et al., 2020). Having limited exposure to change initiatives such as lean manufacturing and its proposed benefits, a lack of clarity with respect to their roles and responsibilities and limited communication and training may hinder the front-line from easily adopting the change. Table 2 depicts the results of the tests on the differences between the management and front-line groups. A p value of 0.003 was generated from the significance test for Factor 1. As this value is less than the significance level of 0.05, $H1,0$ is rejected for Factor 1. The risk culture perceptions of management indicate more optimism to introduce and accommodate change than the front-line personnel, therefore answering the first research question.

Table 2: Tests for differences between management and front-line groups

| Level of role | n | Wilcoxon score | mean | Chi-squared test statistic | p value | Significant difference at $\alpha = 0.05$ |
|---|-----|----------------|------|----------------------------|---------|---|
| <i>Factor 1: Change risk culture perception measure</i> | | | | | | |
| Management | 45 | 135 | | 8.59 | 0.003 | Yes |
| Front-line | 174 | 104 | | | | |
| <i>Factor 2: Comfort with own change risk role</i> | | | | | | |
| Management | 46 | 146 | | 17.73 | <0.0001 | Yes |
| Front-line | 174 | 101 | | | | |

Significance level 0.05.

The significance test for Factor 2 yielded a p value less than 0.0001. Being much smaller than the significance level of 0.05, the null hypothesis ($H2,0$) is rejected for this factor. As expected, the management group is more comfortable with their own change risk roles than the front-line employees, thereby answering the second research question.

4.5 Examining the “I do not know” responses.

The “I do not know” and “I do not understand the statement” responses provide valuable information on the levels of uncertainty about risk culture-related aspects in the study sample that

could be indicative of possible risk-related knowledge, or of its lack, in the study population. The Pareto principle, typically used to identify the 20% of causes that results in 80% of the problems, was applied to highlight the questionnaire items out of the initial 42 that constitute 80% of the “I do not know” responses (Fadeyi et al., 2016; Nallusamy & Majumdar, 2017).

Several items in the top 80% have similar and low frequencies. For the purposes of prioritisation, items with more than 3% frequency were items 39, 40 and 42 and all refer to performance management and subsequent incentives that employees receive. The uncertainty from employees at the facility on these aspects corroborates with the fact that there is no performance management system to assess employee performance. There is no standard practice to reward the workforce for meeting objectives. This gap serves to indicate an improvement opportunity that senior management can consider.

Items 3 and 4 specify whether the organisation considers threats and opportunities when defining objectives while also defining the boundaries within which risks can be tolerated. It can be argued that these decisions are taken at a more strategic and senior management level, although the very same objectives are cascaded down to the various teams in the organisation. It could prove worthwhile to articulate the business objectives together with the consequences for the company if objectives are not met, to employees at other levels. This may serve to improve understanding of change and associated risks among the workforces.

A total of 80% of management and 54% of the front-line employees specified that they understood the concept of change risk, which proves to be encouraging in terms of understanding the risk type and is crucial for this survey. Few front-line employees (18%) said that they did not understand the concept well and none replied, “I do not know”. This lack of awareness can be improved through training and communication.

Most of the management team (74%) indicated that they understood the link between the organisation’s change risks and objectives. The front-line workers displayed varying levels of understanding with 45% specifying a lack of understanding. Articulating the change risks and their link to the company objectives through training and communication may improve the understanding among the front-line workers. The management team with sound knowledge can perform a crucial role in empowering the front-line employees.

4.6 Diagnostic items

The analysis of the two additional items, not included in the original scale, is provided below. The distribution of the study groups’ responses to the items “All identified change risks are reviewed...” and “The organisation allows sufficient time to embed change...” are presented using descriptive statistics. The responses to “All identified change risks are reviewed...” indicate that most of the respondents believed that change risks are reviewed occasionally. This could potentially indicate a lack of effective risk management to ensure that identified change risks are mitigated over time. With the majority of the front-line (42%) answering “Never” and “Infrequently” on this item, it could also imply a lack of communication from management with respect to the progress of change risk management. The responses to “The organisation allow

sufficient time to embed change...” indicate that 58% of front-line employees believed that they were not given adequate time to fulfil the desired results of an evolutionary change such as lean manufacturing. This is contrary to the 56% of management, who specified that they agreed that it did. This inconsistency could pose a risk in terms of the understanding of LM practices and ensuring their effective implementation. Whereas management expects more agile delivery of results, the front-line may require more time to adapt to the change through learning and practice.

4.7 Improvement suggestions

The diagnostic item “To improve the inclusion of change risk...” was posed to participants to garner possible improvement areas in the change risk culture. The results in Figure 1 indicate “Understanding change risk” was understood by staff was selected by 49 (22%) respondents, followed by how managers communicate (17%), requirement to clarify roles (15%), setting the tone from the top by leadership (12%), accountability (8%) and incentives (6%). These aspects constitute the primary areas for improvement, thereby answering the third research question.

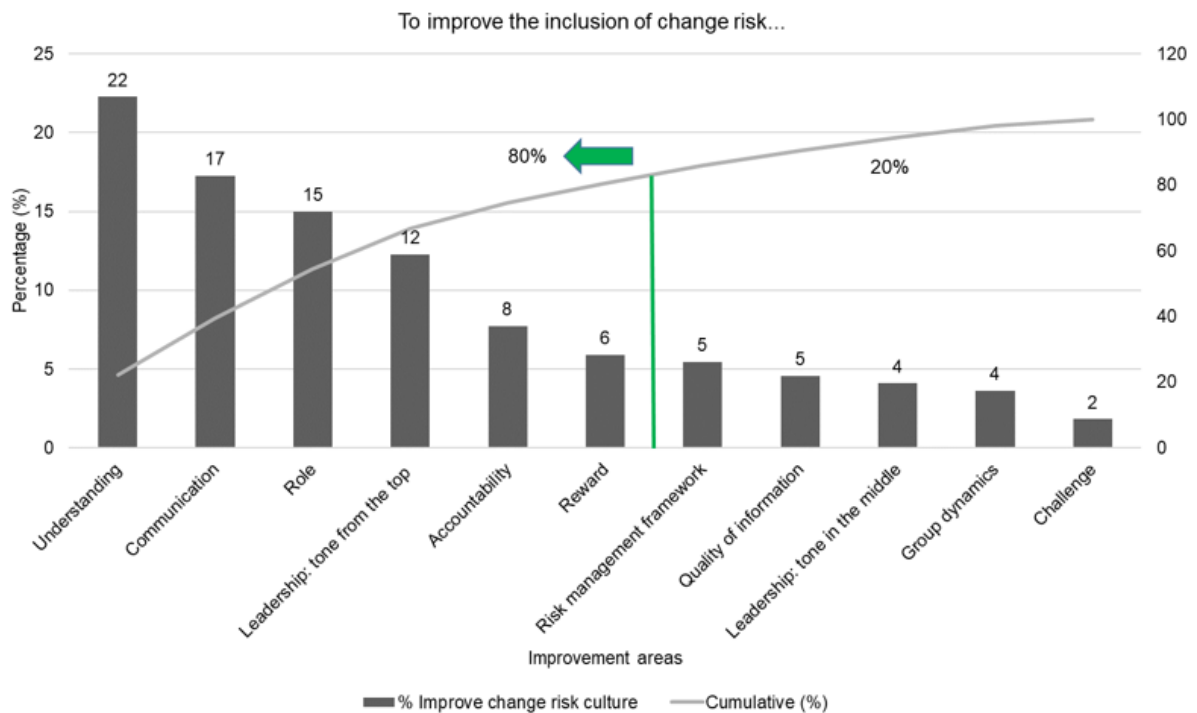


Figure 1. Change risk culture improvement opportunities identified by participants.

The study sample’s preference for a focus on behavioural aspects correlates with discussions in the literature on ensuring sustainable lean manufacturing (LM) initiatives. According to Alhuraish et al. (2017), LM requires a change in behaviour which, although it can be taught, is more challenging to achieve. Employees tend to be frustrated if they do not understand the reasons for change. To alleviate these concerns, strong management support is required by communicating the need for change whilst also providing the resources for employees to participate in the change (Worley & Doolen, 2006; Zhang et al., 2017). A key resource to sustain LM efforts is to create capability among the employees through training and coaching (Boyer, 1996; Zhang et al., 2017). Irrespective of other business challenges, management should find the time to focus on creating an environment where employees can be engaged and encouraged. AlManei et al. (2018) proposed

a change management-based framework to assist organisations pursuing change initiatives such as LM. The framework is based on Kotter's eight-step model for the leading and managing of change. This process is widely recognised by organisational leaders as the "solution" to the problems faced when implementing change (Pollack & Pollack, 2015). The framework as suggested by AlManei et al. (2018) was adopted to highlight the links to the improvement areas identified from this research in the encircled themes.

5. CONCLUSION

This quantitative study, facilitated through the administering of a survey focused on change risk, served to examine the perceptions of change risk culture as well as comfort with change risk roles among the management and front-line employees at a South African chemical manufacturer. Statistical analyses of the data collected provided unique insight into the concept of change risk culture at the firm. Significant differences between the study groups' levels of comfort with change risk roles were identified, with management being more comfortable with their roles than the front-line employees. With respect to their perceptions of change risk culture, significant differences were also observed, with management indicating more optimism to introduce and accommodate change than the front-line employees. The understanding of change risk through training and coaching, communication, risk role, leadership, accountability, and incentives were identified by respondents as the chief aspects to improve the change risk culture. As discovered in the academic literature, strong management commitment and support is required to improve the likelihood of success when implementing change initiatives such as lean manufacturing (Alefari et al., 2017; Alhuraish et al., 2017; Taherimashhadi & Ribas, 2018; Zhang et al., 2017). For every lean manufacturing practice and tool that is to be implemented and utilised by the front-line employees, it is imperative for management to clearly communicate the link between the practice and the company objectives while providing the resources such as training to build knowledge and awareness. Engaging the front-line employees to drive continuous improvement by creating wins can potentially enhance commitment and develop the sound culture as denoted in the well-described Toyota Production Management system (Loyd et al., 2020). This study is a pioneer in providing insight into the risk culture associated with change initiatives and the first of its kind at the chemical manufacturer. It is envisaged that the firm's management team will acknowledge the findings reported here and provide impetus to the lean manufacturing programme by adopting new behaviours.

REFERENCES

- Alefari, M., Salonitis, K., & Xu, Y. (2017). The role of leadership in implementing lean manufacturing. *Procedia CIRP*, 63, 756-761. <https://doi.org/https://doi.org/10.1016/j.procir.2017.03.169>
- Alhuraish, I., Robledo, C., & Kobi, A. (2017). A comparative exploration of lean manufacturing and six sigma in terms of their critical success factors. *Journal of Cleaner Production*, 164, 325-337. <https://doi.org/https://doi.org/10.1016/j.jclepro.2017.06.146>
- AlManei, M., Salonitis, K., & Tsinopoulos, C. (2018). A conceptual lean implementation framework based on change management theory. *Procedia CIRP*, 72, 1160-1165. <https://doi.org/https://doi.org/10.1016/j.procir.2018.03.141>

-
- Alves, J. R. X., & Alves, J. M. (2015). Production management model integrating the principles of lean manufacturing and sustainability supported by the cultural transformation of a company. *International Journal of Production Research*, 53(17), 5320-5333. <https://doi.org/10.1080/00207543.2015.1033032>
- APRA. (2016). *Risk culture*. <https://www.apra.gov.au/sites/default/files/161018-information-paper-risk-culture1.pdf>
- Ashby, S., Palermo, T., & Power, M. (2012). *Risk culture in financial organisations: An interim report*. L. R. Online. <http://eprints.lse.ac.uk/id/eprint/47488>
- Aven, T. (2016). Risk assessment and risk management: Review of recent advances on their foundation. *European Journal of Operational Research*, 253(1), 1-13. <https://doi.org/https://doi.org/10.1016/j.ejor.2015.12.023>
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human relations*, 61(8), 1139-1160. <https://doi.org/https://doi.org/10.1177/0018726708094863>
- Bennett, M. R., Ogutu, J., & Olawoyin, R. (2020). Intelligent Risk Management: Seven Practical Steps to a Strong Risk Culture & Financial Maturity [Article]. *Professional Safety*, 65(5), 33-38. <https://nwulib.nwu.ac.za/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=143018429>
- Bhasin, S. (2012). Prominent obstacles to lean. *International Journal of Productivity and Performance Management*, 61(4), 403-425. <https://doi.org/10.1108/17410401211212661>
- Bonavia, T., & Marin Juan, A. (2006). An empirical study of lean production in the ceramic tile industry in Spain. *International Journal of Operations & Production Management*, 26(5), 505-531. <https://doi.org/10.1108/01443570610659883>
- Bortolotti, T., Boscarri, S., & Danese, P. (2015). Successful lean implementation: Organizational culture and soft lean practices. *International Journal of Production Economics*, 160, 182-201. <https://doi.org/https://doi.org/10.1016/j.ijpe.2014.10.013>
- Boulton, B., & Dominus, M. (2014). Developing an Effective Risk Culture [Article]. *Electric Perspectives*, 39(3), 57-60. <https://nwulib.nwu.ac.za/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=96096741>
- Boyer, K. K. (1996). An assessment of managerial commitment to lean production. *International Journal of Operations & Production Management*, 16(9), 48-59. <https://doi.org/10.1108/01443579610125589>
- Carretta, A., Farina, V., & Schwizer, P. (2017). Risk culture and banking supervision. *Journal of Financial Regulation and Compliance*, 25(2), 209-226. <https://doi.org/10.1108/JFRC-03-2016-0019>
- Carroll, J. S. (1998). Safety culture as an ongoing process: Culture surveys as opportunities for enquiry and change. *Work & Stress*, 12(3), 272-284. <https://doi.org/10.1080/02678379808256866>
- Casey, T., Griffin, M. A., Flatau Harrison, H., & Neal, A. (2017). Safety climate and culture: Integrating psychological and systems perspectives. *Journal of Occupational Health Psychology*, 22(3), 341-353. <https://doi.org/10.1037/ocp0000072> (Journal of Occupational Health Psychology at 20)
- Clarke, C. J., & Varma, S. (1999). Strategic Risk Management: the New Competitive Edge. *Long Range Planning*, 32(4), 414-424. [https://doi.org/https://doi.org/10.1016/S0024-6301\(99\)00052-7](https://doi.org/https://doi.org/10.1016/S0024-6301(99)00052-7)
-

- CRO. (2015). *Sound Risk Culture in the Insurance Industry*. <https://www.thecroforum.org/2015/05/11/risk-culture/>
- Croasmun, J. T., & Ostrom, L. (2011). Using Likert-Type Scales in the Social Sciences. *Journal of Adult Education*, 40(1), 19-22.
- Deloitte. (2012). *Cultivating a Risk Intelligent Culture - Understand, measure, strengthen, and report*. D. D. LLC. <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/center-for-corporate-governance/us-ccg-cultivating-a-risk-intelligent-culture-050212.pdf>
- Dewaele, J.-M. (2018). Online questionnaires. In *The Palgrave handbook of applied linguistics research methodology* (pp. 269-286). Springer. https://doi.org/https://doi.org/10.1057/978-1-137-59900-1_13
- Domańska-Szaruga, B. (2020). Maturity of risk management culture. *Entrepreneurship and Sustainability Issues*, 7(3), 2060-2078. [https://doi.org/https://doi.org/10.9770/jesi.2020.7.3\(41\)](https://doi.org/https://doi.org/10.9770/jesi.2020.7.3(41))
- Dorval, M., Jobin, M.-H., & Benomar, N. (2019). Lean culture: a comprehensive systematic literature review. *International Journal of Productivity and Performance Management*, 68(5), 920-937. <https://doi.org/10.1108/IJPPM-03-2018-0087>
- Fadeyi, J. A., Okwu, M. O., Mgbemena, C. O., & Ezekiel, K. C. (2016). The Pareto principle and a hazard model as tools for appropriate scheduled maintenance in a manufacturing firm. *African Journal of Science, Technology, Innovation and Development*, 8(2), 173-177. <https://doi.org/doi:http://dx.doi.org/10.1080/20421338.2016.1147203>
- FSB. (2014). *Financial Stability Board: Guidance on Supervisory Interaction with Financial Institutions on Risk Culture - A Framework for Assessing Risk Culture*. <http://www/fsb.org/wp-content/uploads/140407.pdf>
- Ha, S. L., & Zhang, C. (2019). Are computers better than smartphones for web survey responses? *Online Information Review*, 43(3), 350-368. <https://doi.org/10.1108/OIR-11-2017-0322>
- Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online readings in psychology culture*, 2(1), 8. <https://doi.org/https://doi.org/10.9707/2307-0919.1014>
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind. Revised and expanded 3rd Edition*. McGraw-Hill.
- Iranmanesh, M., Zailani, S., Hyun, S. S., Ali, M. H., & Kim, K. (2019). Impact of Lean Manufacturing Practices on Firms' Sustainable Performance: Lean Culture as a Moderator. *Sustainability*, 11(4), 1112. <https://doi.org/https://doi.org/10.3390/su11041112>
- ISO. (2009). *Risk management - Principles and guidelines*. www.ehss.moe.gov.ir/getattachment/ISO-31000
- Kothari, C. R. (1990). *Research Methodology: Methods & Techniques* (Second ed.). Wishwa Prakashan.
- KPMG. (2018). *Your risk culture: An ERM enabler or barrier?* <https://institutes.kpmg.us/content/dam/institutes/en/government/pdfs/2018/risk-culture-erm.pdf>
- Krishnan, T. N., & Poulouse, S. (2016). Response rate in industrial surveys conducted in India: Trends and implications. *IIMB Management Review*, 28(2), 88-97. <https://doi.org/https://doi.org/10.1016/j.iimb.2016.05.001>
- Levy, C., Lamarre, E., & Twining, J. (2010). *Taking control of organizational risk culture*. https://www.mckinsey.com/~media/mckinsey/dotcom/client_service/risk/working%20papers/16_taking_control_of_organizational_risk_culture.ashx

-
- Loyd, N., Harris, G., Gholston, S., & Berkowitz, D. (2020). Development of a lean assessment tool and measuring the effect of culture from employee perception. *Journal of Manufacturing Technology Management*. <https://doi.org/10.1108/jmtm-10-2019-0375>
- Mann, D. (2009). The missing link: Lean leadership. *Frontiers of health services management*, 26(1), 15-26. <https://doi.org/10.1097/01974520-200907000-00003>.
- Mor, R. S., Bhardwaj, A., Singh, S., & Sachdeva, A. (2018). Productivity gains through standardization-of-work in a manufacturing company. *Journal of Manufacturing Technology Management*. <https://doi.org/10.1108/jmtm-07-2017-0151>
- Munteanu, A.-B., & Fotache, D. (2015). Enablers of Information Security Culture. *Procedia Economics and Finance*, 20, 414-422. [https://doi.org/https://doi.org/10.1016/S2212-5671\(15\)00091-X](https://doi.org/https://doi.org/10.1016/S2212-5671(15)00091-X)
- Nallusamy, S., & Majumdar, G. (2017). Enhancement of Overall Equipment Effectiveness using Total Productive Maintenance in a Manufacturing Industry [Article]. *International Journal of Performability Engineering*, 13(2), 173-188. <https://nwulib.nwu.ac.za/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=aci&AN=123606076>
- Nasir, A., Arshah, R. A., Hamid, M. R. A., & Fahmy, S. (2019). An analysis on the dimensions of information security culture concept: A review. *Journal of Information Security and Applications*, 44, 12-22. <https://doi.org/https://doi.org/10.1016/j.jisa.2018.11.003>
- Nordlöf, H., Wiitavaara, B., Högberg, H., & Westerling, R. (2017). A cross-sectional study of factors influencing occupational health and safety management practices in companies. *Safety Science*, 95, 92-103. <https://doi.org/https://doi.org/10.1016/j.ssci.2017.02.008>
- Pakdil, F., & Leonard, K. M. (2015). The effect of organizational culture on implementing and sustaining lean processes. *Journal of Manufacturing Technology Management*, 26(5), 725-743. <https://doi.org/10.1108/JMTM-08-2013-0112>
- Palermo, T., Power, M., & Ashby, S. (2017). Navigating Institutional Complexity: The Production of Risk Culture in the Financial Sector. *Journal of Management Studies*, 54(2), 154-181. <https://doi.org/10.1111/joms.12241>
- Paro, P. P. E., & Gerolamo, C. M. (2017). Organizational culture for lean programs. *Journal of Organizational Change Management*, 30(4), 584-598. <https://doi.org/10.1108/JOCM-02-2016-0039>
- Pettigrew, A. M. (1979). On Studying Organizational Cultures [Article]. *Administrative Science Quarterly*, 24(4), 570-581. <https://doi.org/10.2307/2392363>
- Pollack, J., & Pollack, R. (2015). Using Kotter's Eight Stage Process to Manage an Organisational Change Program: Presentation and Practice. *Systemic Practice and Action Research*, 28(1), 51-66. <https://doi.org/10.1007/s11213-014-9317-0>
- Prajogo, D. I., & McDermott, C. M. (2005). The relationship between total quality management practices and organizational culture. *International Journal of Operations & Production Management*, 25(11), 1101-1122. <https://doi.org/10.1108/01443570510626916>
- Randhawa, J. S., & Ahuja, I. S. (2017). 5S – a quality improvement tool for sustainable performance: literature review and directions. *International Journal of Quality & Reliability Management*, 34(3), 334-361. <https://doi.org/10.1108/IJQRM-03-2015-0045>
- Ring, P. J., Bryce, C., McKinney, R., & Webb, R. (2016). Taking notice of risk culture – the regulator's approach. *Journal of Risk Research*, 19(3), 364-387. <https://doi.org/10.1080/13669877.2014.983944>
- Roeschmann, A. Z. (2014). Risk Culture: What It Is and How It Affects an Insurer's Risk Management. *Risk Management and Insurance Review*, 17(2), 277-296. <https://doi.org/10.1111/rmir.12025>
-

-
- Scherrer-Rathje, M., Boyle, T. A., & Deflorin, P. (2009). Lean, take two! Reflections from the second attempt at lean implementation. *Business Horizons*, 52(1), 79-88. <https://doi.org/https://doi.org/10.1016/j.bushor.2008.08.004>
- Sheedy, E. A., Griffin, B., & Barbour, J. P. (2017). A Framework and Measure for Examining Risk Climate in Financial Institutions [journal article]. *Journal of Business and Psychology*, 32(1), 101-116. <https://doi.org/10.1007/s10869-015-9424-7>
- Shih, T.-H., & Fan, X. (2008). Comparing Response Rates from Web and Mail Surveys: A Meta-Analysis. *Field Methods*, 20(3), 249-271. <https://doi.org/10.1177/1525822x08317085>
- Sreedharan, V. R., Sunder, M. V., & Raju, R. (2018). Critical success factors of TQM, Six Sigma, Lean and Lean Six Sigma: A literature review and key findings. *Benchmarking: An International Journal*, 25(9), 3479-3504. <https://doi.org/10.1108/BIJ-08-2017-0223>
- Strauch, B. (2015). Can we examine safety culture in accident investigations, or should we? *Safety Science*, 77, 102-111. <https://doi.org/https://doi.org/10.1016/j.ssci.2015.03.020>
- Suddaby, R. (2010). Editor's Comments: Construct Clarity in Theories of Management and Organization. *Academy of Management Review*, 35(3), 346-357. <https://doi.org/10.5465/amr.35.3.zok346>
- Taherimashhadi, M., & Ribas, I. (2018). A Model to align the organizational culture to Lean [Lean Manufacturing, Toyota Production System, Organizational culture, National culture, Lean implementation.]. *Journal of Industrial Engineering and Management*, 11(2), 15. <https://doi.org/10.3926/jiem.2511>
- Tang, M., Li, M. g., & Zhang, T. (2016). The impacts of organizational culture on information security culture: a case study. *Information Technology and Management*, 17(2), 179-186. <https://doi.org/10.1007/s10799-015-0252-2>
- Vierendeels, G., Reniers, G., van Nunen, K., & Ponnet, K. (2018). An integrative conceptual framework for safety culture: The Egg Aggregated Model (TEAM) of safety culture. *Safety Science*, 103, 323-339. <https://doi.org/https://doi.org/10.1016/j.ssci.2017.12.021>
- Waddell, D., & Sohal, S. A. (1998). Resistance: a constructive tool for change management. *Management Decision*, 36(8), 543-548. <https://doi.org/10.1108/00251749810232628>
- Worley, J. M., & Doolen, T. L. (2006). The role of communication and management support in a lean manufacturing implementation. *Management Decision*, 44(2), 228-245. <https://doi.org/10.1108/00251740610650210>
- Zaaiman, H., Pretorius, H., Van der Flier, H., & Born, M. P. (in progress). The UARM Risk Culture Scale development and validation.
- Zhang, L., Narkhede, E. B., & Chaple, P. A. (2017). Evaluating lean manufacturing barriers: an interpretive process. *Journal of Manufacturing Technology Management*, 28(8), 1086-1114. <https://doi.org/10.1108/JMTM-04-2017-0071>
- Zuliyanti, H. A. A., Pulakanam, V., & Pons, D. (2017). Success factors and barriers to implementing lean in the printing industry: A case study and theoretical framework. *Journal of Manufacturing Technology Management*, 28(4), 458-484. <https://doi.org/10.1108/JMTM-05-2016-0067>
-

SSIRC 2023-100**THE PROSOCIAL MOTIVATION OF SOCIAL ENTREPRENEURS IN WASTE MANAGEMENT BUSINESSES IN SOUTH AFRICA****O.A. Akinboade**

Africa Resources in Socioeconomics, South Africa

M. Ngoepe- Ntsoane

University of South Africa, South Africa

ABSTRACT

The study aims to comprehend the altruistic goals of social entrepreneur endeavours within the intricate waste management system in South Africa. In this industry, there exist linkages between networked infrastructures, technological capabilities, and social, economic, and political organizations where duties and jurisdictions overlap. Municipalities used to have a near-monopoly on trash management, but today a complex mix of commercial and public organizations, as well as the private sector and non-governmental organizations, provide public services. In South Africa, formal and informal social entrepreneurs started recycling garbage decades ago, mostly motivated by social needs and, to a lesser extent, by the need for certain minerals. Despite having little to no integration into municipal garbage, these have largely been quite successful in closing the gap between the service and value chains. This study contributes to our understanding of the prosocial motives of waste management social entrepreneurship within the context of constitutionally mandated public service delivery. With due consideration of the results, social entrepreneurship theorists suggest that providing public goods through SEs is a second-best strategy that serves as an institutional patch until the government has the revenue to meet its responsibility.

KEYWORDS: Social entrepreneurship, prosocial motivation, waste management.

1.INTRODUCTION

Wastes, such as farm-level wastes, those generated on construction sites (Li et al., 2018), household-level as well as municipal solid wastes (Abadi, Mahdavian & Fattahi 2021) refer to anything that the owner does not want anymore and wants to discard or dispose of, whether it can be re-used, recycled, recovered, or not (SADoE, 2019). Solid waste management includes procedures and programmes for eradicating, reducing, re-using, recycling or landfilling waste. In low-income countries, municipal solid waste management comprises the collection and transportation of waste to the final disposal which is usually accomplished by means of open dumping (Tsega, 2013). Open burning and landfill fires make up 19% of pollution like carbon monoxide, particulate matter, and hydrocarbons in India (Howes, 2015). Mavropoulous et al. (2015) found that municipal solid waste management, particularly in developing countries, has emerged as a dominant urban environmental issue.

About a third of the world's trash is produced in lower-middle income countries, with sub-Saharan African nations forecast to increase their production by 2050. (Kaza et al., 2018). South Africa produced 42 million tonnes of general trash in 2017, but only 59 percent of it was properly

collected (SADEA, 2018). In 2019, this was almost 54,425 tonnes of garbage per day, the fifteenth highest level in the world (Schenk et al, 2019: 80). In South Africa, just 10% of garbage is recycled; the remainder ends up in landfills (Schenk et al, 2019: 81). The Municipal Systems Act 32 of 2000 of South Africa designated local municipal authorities as the primary organizations in charge of the effective and efficient.

Utilizing methods like composting, recycling, reusing, and burning or burying trash in one's own yard are all part of on-site domestic waste management. The alternative is for homeowners to donate their unwanted items, discard their garbage in public trash cans or landfills, or send their sorted recyclables to drop-off places (Ferrera, 2008). Off-site waste/recyclables disposal includes "conventional" environmentally harmful waste disposal methods, such as open burning and the dumping of waste in uncontrolled areas (such as on streets, in vacant lots, and on riverbanks), which pollute the environment, pose health risks to the community, and necessitate costly clean-ups of such sites by the local government (Abel, 2014; Comerford et al, 2018; Wang et al, 2018).

According to Niyobuhungiro and Schenck (2020), due to a lack of knowledge about proper waste management procedures habits, a role to private enterprises in achieving this aim through reusing products and recycling materials (Sentime, 2014: 87). The Waste Act 59 of 2008 outlined waste management objectives to include waste minimization and growth of a "green economy" waste sector (Linnay, 2013: 28).

Townships and informal settlements in South Africa are often characterized by poorly managed domestic waste with inadequate waste management facilities and infrastructure (Han et al, 2018). This, in turn, leads to higher levels of littering and the illegal dumping, burying, burning, storing, and uncontrolled abandoning of waste and unused resources (Hidalgo et al., 2017; Lamasanu & Mihai, 2016). Poor waste management infrastructure and facilities, low quality of waste management services, lack of funds, poor environmental awareness, the limited markets for recycled materials, and the lack of separation of waste at source recycling programs contribute to the dumping of waste (Ichinose & Yamamoto, 2011) and eventual environmental pollution, resource degradation and eventual damage to the overall economy. In 2016, South African municipalities required an estimated R39 billion per year for operational costs to deliver services to the poor and an additional R41 billion for administrative costs for providing the same services (SADoCGTA, 2016). The City of Cape Town spends approximately R350 million every year to clear indiscriminate waste dumping (CoCT, 2019). This is 20 times more expensive than collecting waste from households. Hence, the City of Cape Town has adopted a Waste Hierarchy, supporting a feedback loop for waste to be reinvented as secondary inputs, and where the use of landfills is a last resort (Linnay, 2013: 29). The South African government is, hence, committed to grow the waste and secondary resources sector from its contribution of 0.51% of GDP to between 1.0–1.5% of GDP, as a means of addressing the larger social challenges of poverty, unemployment, and inequality (SADoST,2013).

There are 21 illegal rubbish dumps in the city of Tshwane, over half of which are hazardous to public health and the environment (Nkosi, 2014). Municipal waste management is the act of sorting and managing common items that are often considered to be trash (Morero et al., 2020). It

has a lot of plastic in it, which can be removed from it, shredded, and utilized once more, especially if it has been cleaned and separated (Mollnitz et al., 2020).

As a result, both commercial and household waste is collected and recycled in South Africa by privately owned firms (Hanekom, 2019; Plastics SA, 2019). These SEs lessen local government service delivery burdens by creating alternate community waste management service delivery models.

Garbage collection, the placement of new landfills, the development of non-divertible technologies, etc. all bring waste into focus (Dodds & Hopwood, 2006). However, there is a paucity of study on what drives social entrepreneurs (SEs) to engage in these public service delivery endeavors on a prosocial level. Inevitably, interest in social entrepreneurship (SE) as a means of addressing social issues in Africa is rising significantly among practitioners and academics (Luke et al, 2013; Littlewood & Holt, 2018). As the global community pays more attention to the effects of climate change, particularly on underprivileged people, the rise of environmentally motivated SEs has increased. The management and reduction of waste is a major focus for many of these SEs (Vickers & Lyon, 2014: 449). South African SEs spend most of their efforts filling "institutional voids" or "gaps" (Mair, Marti). When it comes to employment practices in Africa, SEs have pioneered socially innovative solutions by hiring women, low-skilled workers, and people from historically disadvantaged backgrounds.

1.1. Social entrepreneurs fill service delivery gap of South African municipalities.

Many years ago, SEs in South Africa started recycling garbage, mostly motivated by societal demands and, to a lesser extent, by the desire for specific minerals. Steelrec, one of the formal SEs, was founded in 1976 by Metal Box and Crown Cork (the forerunners of Nampak and ArcelorMittal) and is responsible for the collection and recycling of abandoned beverage cans (Nampak, 2002; Collect-a-Can, 2011). Additionally, garbage sorting facilities, some of which date back to the 1970s, were in use at this time in Johannesburg's and Pretoria's major urban districts (Noble, 1976). In South Africa, in addition to formal SEs, a sizable number of waste management SEs work in the unofficial sector and oversee collecting 80-90 percent (by weight) of the country's waste.

It is hence interesting to research into prosocial motives driving SEs in waste management public service delivery in South Africa, especially in a sector previously earmarked for the local government. This is because the selection of agents based on their pro-social motivation matters for efficient provision and having enterprises that are committed to a pro-social cause may have beneficial consequences (Besley & Ghatak 2018). The rest of the paper consists of a review of literature in section two, a description of the research techniques in section three. Section four presents study results which are discussed in section five. The last section concludes the paper.

2. LITERATURE REVIEW: MOTIVATIONS OF SOCIAL ENTREPRENEURS

The main factor that separates those successful budding entrepreneurs from those that fail to attain commercial success is their motivation, according to SEs (Renko et al., 2012:667). Motivations and expectations (anticipated social, economic, or environmental benefits) are crucial because they

affect how well-liked entrepreneurship and SE activities in isolated and underserved areas are in society, where SEs take advantage of an opportunity while also benefiting society. Chandra and Shang (2017) discovered that a social entrepreneur's motives can be traced back to their past and to incidents that spark their desire to launch the business, which usually leads to opportunity identification. In this situation, a person's mood, subjective norms, and perceived behavioral control all contribute to their goals (Ajzen, 1991). Following that, SEs' familiarity with the current situation, community influence, entrepreneurship, social difficulties, political issues, and personal considerations

2.1. SEs' social concerns as business motive

Stephan and Drencheva (2017) as well as Bartha et al (2019) show that SEs differ from traditional entrepreneurs by having more “social concerns,” a greater sense of moral obligation and a higher degree of empathy (Ruskin et al., 2016; Lubberink, 2020). South Africans could be socially excluded as they suffer from unemployment, have poor skills, low incomes, and are unfairly discriminated against. Given this context, SEs may consider it very crucial to ‘tie together’ territorially disjointed or isolated rural areas and townships, by providing a physical infrastructure to increase social resilience as well as facilitate direct social production processes (Mueller, 2001).

Prosocial motivation is defined as “the desire to protect or improve the well-being of other people” (Grant & Berg, 2012). As such, prosocial motivation enables SEs to develop socially oriented situational factors that push individuals to act outside the laws and regulatory guidelines in society (Minola et al., 2016), using culturally prescribed aspirations in the realization of SE desires. SEs are characterized by creating social value, but that does not imply that all social value creating organizations are SEs (Dwivedi & Weerawardena, 2018). This is due largely to the fact that increasing number of commercial organizations create social value, but their motive remains profit oriented.

2.2 SEs' compassion as a business motive

SEs contend that as people are the primary resources, beneficiaries, and recipients of any community investment, social change cannot take place without a focus on them (Di Domenico, Haugh, & Tracy, 2010). According to SEs, compassion is a multi-stage social process that involves lessening another person's suffering (Kanov et al., 2004). This process begins when someone sees another person's misery, an occurrence known as the pain trigger (Dutton et al., 2006). It is the process of observing another person's suffering, understanding it through two complementing mechanisms—self-efficacy and social worth—and then taking action to lessen it (Bacq & Alt, 2018). (Frost et al., 2000; Kanov et al., 2004). The impulse to be compassionate is innate (Frost et al., 2006; Goetz et al., 2010; Nussbaum, 1996, 2003). SEs' social businesses, in this context, are those whose benefit goes to a localized and weak section of the society (such as the poor, long-term unemployed, disabled, discriminated, socially excluded, etc.), a group that is often neglected by the government (Seelos & Mair, 2005; Certo & Miller, 2008).

2.3 SEs' local environmental concerns as a motive

Clausen and Rudolph (2020) emphasized the environmental motivation in the political economy of renewable energy (RE) technologies planning and development as SEs, policy makers and other stakeholders link RE technologies to the decarbonization of the energy sector. In this context, climate variability, climate differences in a local context (Castaño-Rosa, et al, 2021), and socio-demographic factors are important for the occurrence (increase or levelling) of fuel poverty. Systems that are less carbon intensive and vital for advancing human development, resolve energy access and energy poverty issues in rapidly growing countries like Vietnam, Brazil, India, South Africa, and poorest countries transitioning from agrarian to industrial societies (Dasgupta & Roy, 2017; Mark et al., 2017). Ayeni et al., (2021) talked about the desire of African people to gain social acceptance, respect, and recognition by enhancing their economic status through SEs, formal or informal.

Overall, while the commercial entrepreneur seeks to create private value, SEs prime motivator is to create societal value (Mair & Noboa, 2003; Santos, 2012), to do something for mankind (Ghalwash, Tolba, & Ismail, 2017).

3. RESEARCH METHODOLOGY

3.1. Study context: municipal waste management challenges in South Africa.

This study focuses on the provision of waste management services in South Africa's townships, where residents frequently experience a lack of public investment in infrastructure and essential services like water, sanitation, electricity, solid waste management, roads, and transportation, as well as health and educational programs (Baker, 2012; Makgetla, 2010; Medina, 2010). Engaging with SEs who are active in providing these public services has provided compelling insights into the essential components of success required to develop a business model for sustainable social ventures with systemic emergent change, and it begs more scholarly attention. The interview data were analysed along derived thematic lines (Czarniawska, 2004).

3.2. Research question

What prosocial motivations underlie the implementation of public waste management services in South Africa? is the research question that served as study inspiration. The study is focused on actual, unresolved issues with positive externalities, as indicated by Carboni et al. (2019), and it has chosen the finest qualitative research methodology (Myers, 2013:5; Benoot et al., 2016; Dudovskiy, 2019). The study's primary focus is on hybrid social entrepreneurs who deliver public services in partnership with local governments and have been carefully chosen from professional networks of waste management specialists. These entrepreneurs' clients are also business beneficiaries who receive automatic value spillovers from their work. These hybrids have a low risk of mission drift and possible achievement of financial sustainability is relatively easy. One important criterion suggested by Yin (2018) is to select participants equitably, so that the right people who understand the phenomenon should be selected.

3.3. Population and sampling technique

In South Africa, there are between 60 000 (SADEA 2016) and 90 000 (Nowicki 2019) waste pickers who make a living by recovering recyclable materials from garbage (Yu et al, 2020). They strive to reduce the amount of rubbish entering open dumps and water bodies by working to gather recyclable goods on-site for sale in neighbourhood markets. Social entrepreneurship (SE) is relevant when it raises the means of support for individuals employed in the sector, which improves their quality of life in the neighbourhood. But it's well recognized that working with municipalities presents challenges for waste management SEs.

Selecting participants fairly is a key element of Yin (2018), since it ensures that the appropriate individuals who are knowledgeable about the phenomenon are chosen. According to Miles and Huberman (1994), SEs were specifically chosen from the business directories of the Gauteng and Western Cape provinces of South Africa, which are home to many of the best-performing and wealthiest municipalities. The sample especially included five SEs working in the water and sanitation sector who provided water treatment and waste recycling services to communities, businesses, industries, and individuals in addition to local governments.

3.3. Data Collection

After that, in-person interviews were held with senior managers or executives of these organizations who identified their organizations as social enterprises or described themselves as such. Two tiers of questions were used in the semi-structured interviewing technique that was used: primary topics and follow-up questions (Saunders & Lewis, 2012). This has been used in a mono-method qualitative approach to explore the business model design paradigms and motives of SEs in the context of local government in South Africa, paying particular attention to those that operate within the waste management services sectors.

Following Molecke and Pinkse (2020), we used an interviews protocol, with a standard set of questions to elicit interviewees' views of their SE's missions and vision, operations and outcomes. Questions also centre around what some of their SEs financial success stories are, challenges that SEs faced and how these are overcome, and their scaling strategies and pathway to growth, among others. The survey respondents' words are used to depict the reality of the SEs interviewed, in as much as what they deal with in their social environment is socially manufactured (Gioia et al. 2013).

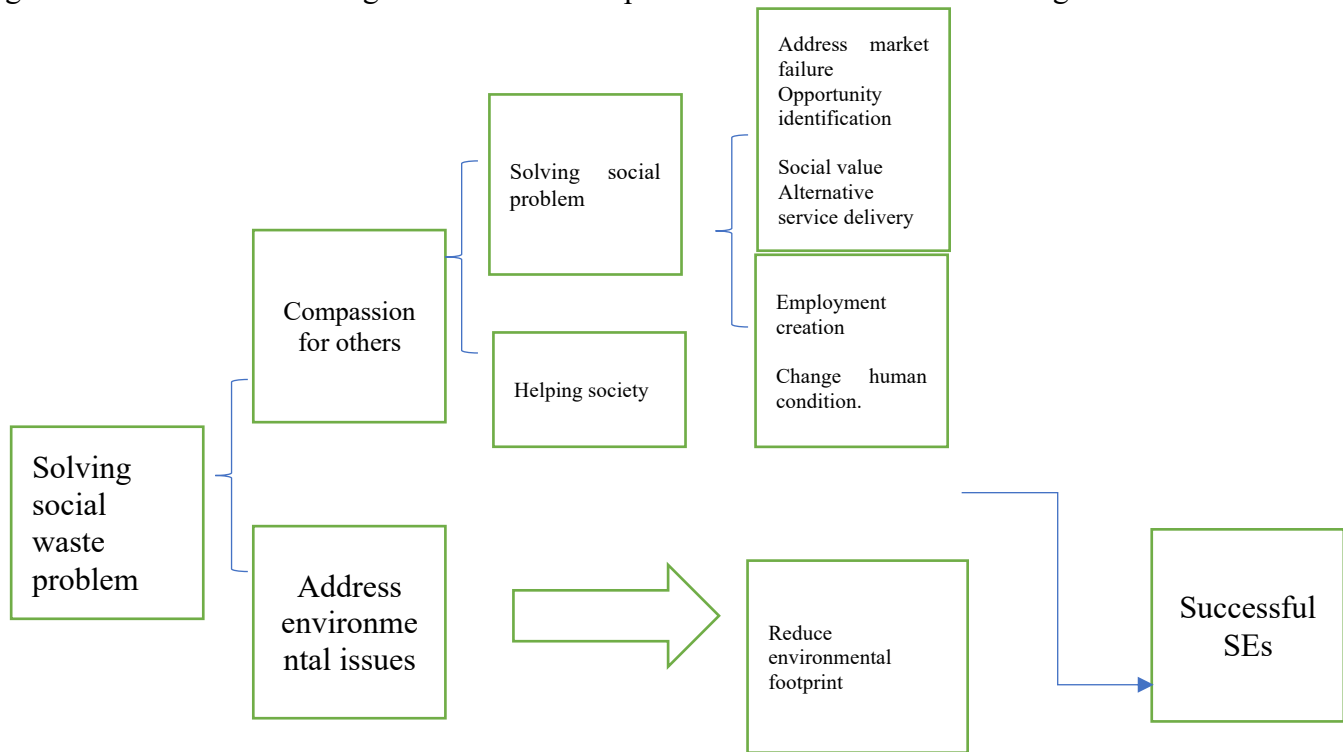
Audio recordings of interviews that were transcribed and uploaded to ATLAS.ti for data analysis served as a supplement to the primary data collected in August to October of 2019. As a framework for the combined results using proven inductive theory-building techniques (Denzin and Lincoln 2005), we also employed categories and codes from the literature to complement inductively derived codes from the data.

4. RESEARCH FINDINGS

SEs are in a unique position to change how the community views waste because they place a strong emphasis on social consequences. We provide research results that imply that SEs' involvement in

waste management is driven by both economic and non-economic incentives, particularly prosocial ones. This is depicted diagrammatically in Figure 1, which also lists three thematic vignettes that our data revealed, including creating sustainable businesses for impact in the neighborhood, environmental concerns, and compassionate business practices.

Figure 1: Illustration of findings on SEs ventures’ pro-social motives in waste management



We are inspired by Alexander and Becker (1978: 94) who view vignettes as short descriptions of a person or a social situation which contain precise references to what are thought to be the most important factors in the decision making or judgement-making processes of interviewees. As a result, Figure 1 graphically presents three thematic vignettes which can be considered as a synthetic representation of the most relevant themes emerging from the data analysis (Alvesson & Sköldberg, 2018).

4.1. Thematic vignette No.1a: Making sustainable community business impact.

Besley and Ghatak (2018:5) address prosocial motivations by examining many non-monetary kinds of motivation, such as dedication to a mission, conformity to an identity, having reputational worries, desiring status, and having altruistic intentions.

4.1a.1 SEs mission to address market failure.

According to interviewees, market failure issues should be solved using a balanced strategy. Interesting success stories and complex intricacies of the SEs' goal were described by various interviewees, who are part of an intriguing new phenomenon:

Finding a solution to someone else's problem is the most fulfilling thing. We started off as a business creating coatings years ago, and then we won the contract to transport rubbish

to a landfill. Now, anything that makes up 40% or more of what we carry is considered dangerous substance until otherwise demonstrated. We were the first to devise a method for separating packaging from liquids to produce a finished good. We've really discovered a registered plant to accomplish this, which is satisfying. Finding an alternative solution involves dealing with hundreds of thousands of liters of hazardous waste. – Participant 3

4.1a.2 SEs' Mission to find alternative service delivery solutions.

The potential of SEs under study to maximize social rather than economic returns drive them (Sullivan, Mort, Weerawardena, and Carnegie 2003). They accomplish this by concentrating on the enduring social needs of South Africans who are marginalized. Some respondents talked about discovering alternate methods of delivering public services because of developing capacity in the host community.:

“We are not in the game of owning landfill spaces, because we believe that's the wrong venture focus. Although there will always be a place for landfills, and the reality of it is that we are very far from a situation of zero waste to landfill in this country. So, we have got a role to play, but we would rather play the role in diverting waste away from landfills.”

– Participant 5

4.1a.3 Opportunity identification and evaluation

A new business is created when an aspiring entrepreneur recognizes an unmet need or discovers patterns (Choi and Majumdar, 2014; Davidsson, 2015). These result from prior experience or guidance (Ozgen & Baron, 2007), and they are connected to the entrepreneurial ambition to launch new businesses (Collewaert et al., 2016).

“I think waste management, in general, is a problem... We are running out of landfill space.”

– Participant 5

“We are one of the few companies that are collecting waste from house-to-house, door-to-door, for recycling. This is an important gap in the market.”

– Participant 2

“We learn about the effects that plastics have on the environment on a daily basis. Microplastics are being discovered in Antarctica's ice sheets, and even in the deepest ocean tunnels, where fish are found to be polluted with microplastics. It is a major problem.”

– Participant 2

Although improved ecological awareness frequently leads to the process of identifying and evaluating opportunities, the significance of altering waste management culture is discussed by SEs.

“Changing the culture, starting with education from a young age, so, there needs to be more education about waste.”

– Participant 4

In this subcategory, the mission to produce sustained influence was the most often identified code group, and interviewees confirmed this.:

“When combined, our vision and mission state that waste management must be done in an environmentally responsible manner. This suggests business sustainability”.

– Participant 1

And a sustainable impact can be construed to imply having economically viable solutions to social problems:

“Our mission is to offer an effective, economically viable solution.” Participant 1.

“We have the vision to purify water with either septic tanks, and address pollution through wastewater treatment plants, or grey water systems. That is basically how we try to come up with solutions for environmental pollution.”

– Participant 1

4.1a SEs’ mission to deliver social value

While delivering social value in waste management, SEs suggest that having a trusting and supportive relationship with waste suppliers was important:

“We operate openly in all aspects of our business. We operate ethically. This is demonstrated by the fact that we have really been successful in establishing these connections and integrating ourselves with partners throughout the whole supply chain.”

– Participant 5

4.1b Thematic Vignette 4.1b: Finding solutions to social problem

SEs’ business activities generate incomes to cover operating costs and hence theoretically do not need to rely on grants or donations to fund their activities (Goncalves et al, 2016: 1605).

“Finding a solution to someone else's situation is the most fulfilling thing.”

----Participant 2

4.1b.1 SEs problem solving motive

Interviewees have a strong motivation for solving problems that relate to waste management social needs and market failure and argue that they are motivated by the strength of community engagements in their ventures:

“My conviction that you're either a part of the problem or the solution is what drives me. And I'd prefer to contribute to the answer.” – Participant 4

4.1b.2 SEs create employment in marginalized communities.

SEs that are involved in waste sorting, recycling, or composting (Momoh & Oladebeye 2010; Ziraba et al. (2016), can provide innovative solutions to issues like unemployment and serve to enhance the participation of alienated members of communities (Ambati, 2019: 1978). They also provide training to community members in the process of recruiting customers (Charles, 2019).

“Being one of the top 10 trash management businesses in southern Africa is something we want to achieve by expanding the company. In addition to helping individuals recycle their waste in an environmentally friendly way, our goal is to employ locals and create jobs.”

– Participant 4

4.1b.3 SE motive is to change human living environment

SEs experience intense positive feelings about their operation as they fill gaps in service provision especially in geographically isolated places, where target beneficiaries were previously marginalised. This was validated by a wide array of elements that constitute sustainable solutions:

“In some circumstances, we even collaborate with customers to cut down on-site trash. This will ultimately help us arrive at a sustainable solution. To explore various means of offering environmental assurance so that people don't have to worry about garbage has been our motto over the years.” – Participant 1

“We'll have more products and employees as our consumer base expands. Then, as we expand, we'll sell more goods. To maintain the business model, we must sell more.” – Participant 2

Participant 3 stressed the fact that many competitors are regulatory non-compliant, thereby undermining the sustainability of their business model:

“It is true that using a licensed dump is much more expensive than simply throwing trash in the street. This is a major problem for the industry. Guys who perpetrate these offenses sometimes go unnoticed for a month or two. Being a huge company, we must conduct ourselves morally. To ensure that we won't have any business at all if we can't turn the trash into a profitable venture...” – Participant 3

The importance of creating a sustainable network is also emphasised and to have a sustainable business funding mechanism:

“Although the price of landfill space is currently modest, it will soon increase enormously. Therefore, it is simpler to secure customer embeddedness and provide them with economic benefit, which maintains the customer network, the longer you can supply a landfill.” – Participant 5

“Our customers continue supporting the company. That is our story of positive sustainable customer relationship.” – Participant 1

4.2 Thematic vignette No. 2: Environmental concerns as SEs motive

The goal of SEs in South Africa's waste management initiatives, which range from recycling to collecting and incineration, is heavily influenced by environmental concern. In this regard, considering that 43% of South Africa's SEs have an environmental protection focus, they have a tremendous opportunity to advance the development of a circular economy and a zero-waste society. SEs are better equipped to propose "bottom up" solutions to environmental problems and

advocate for increasing environmental sustainability because of their local political and social connections (Vickers & Lyon, 2014: 452).

“In terms of the environmental impact of diverting waste from landfill or putting resources back into manufacturing versus taking virgin material, we wanted a carbon emission diversion rate.”
– Participant 4

“To reduce the carbon footprint and bring down carbon emissions, we must bring down fossil fuel usage, etc.”
– Participant 5

4.3 Thematic vignette No. 3: Compassion as SEs business motive

Due of their ties to the neighborhood, SEs are aware of the difficulties facing public trash management in underprivileged South African areas. Participant 4's sole goal is to develop the SE into one of South Africa's top waste management businesses, with a focus on employment development.:

4.3.1 SE Mission to improve business operation through customer satisfaction.

Interviewees also explain their SE mission through the lens of customer satisfaction and through regulation compliance metrics:

“We keep track of community issues, such as noise near facilities, and they are sent a weekly report to the leadership team. Where necessary, we raise a red flag during the meeting. We also provide our management team with weekly regulatory compliance indicators.” – Participant 1

5. DISCUSSIONS

This study produces some interesting findings. There are numerous prospects for social entrepreneurship in South Africa, one of the most unequal nations in the world (2015 Gini coefficient: 63), where SEs are not just surviving but growing (World Bank, 2017, 2020). (Fin24, 2018). There are social entrepreneurs who run their businesses with the goal of resolving other people's social issues. South Africa is a highly unequal nation, making it imperative to pursue the ethos of concern for the welfare of the underprivileged to create a new society. This is in line with the concept that identifying those whose futures are in danger and enhancing their capacity to meet their own needs are essential for social transformation (Kajiita & Kang'ethe, 2020). Wanyoike and Maseno (2021) also emphasize the necessity to build the capacities of the poor and marginalized communities in specific sectors that the SEs operate. It appears government does not have the political will to change.

Since pro-social preferences are endogenous to economic agents, Bowles (2016) underlined that pro-social motivation is important in several scenarios, including market contexts (Bowles, 1998). and is reliant on how well citizens are assimilated. To expand the scope and volume of value generation and capturing inside the network, the SEs under study place a strong emphasis on the sustainability of business solutions, the venture, the industries, and the stakeholder network.

Ineffective and inefficient waste management are linked to inadequate rubbish removal services (Dladla et al., 2016), a lack of sufficient facilities (Nagpure, 2019), and poor environmental legislation enforcement. The common view in South Africa that littering and careless trash disposal generate jobs for individuals, especially SEs, compromises waste management.

It has been established that organizational scholarship and the positive streams of psychology share a common intellectual heritage. Thinking in terms of interpersonal ties enriches it. Positive approaches to motivation imply that the enhancement of another person's life is the primary goal of activity. According to Kajiita and Kang'ethe (2020), SEs in South Africa are driven by the urge to help individuals who are in desperate need to fulfill their social purpose. SEs are recognized for their significant and passionate contribution to addressing the difficulties faced by underserved areas (Plaskoff, 2012: 434; Ludvig et al. 2018). The environment in South Africa encourages SEs to increase their impact and result in societal transformations. In South Africa's Buffalo City Municipality, two SEs (Kajiita and kang'ethe) have reportedly created social value and helped to address social problems on a large scale (2020). It has been said that SEs are emancipatory (Haugh and Talwar 2016). The SEs being offered in low-income markets are specially designed to meet the demands of their intended recipients and the social value they are seeking to create (Tucker and Croom 2021).

Without prosocial motivations, institutional gaps would likely result in a lack of financial incentives, which would lead to the under-provision of so-called public goods and other development issues (Mair & Mart, 2006). The All Women Recycling (AWR), a Cape Town-based SE, creates kliketyklikbox™ for retail sale in South Africa with the goal of reducing the quantity of garbage transported to landfills and helping to elevate neglected people. Some are sent to Europe and the United States. This present box was produced with recycled 2-liter plastic bottles (Linnay, 2013: 58). 180 000 PET bottles were recycled in 2015 because of the creation of the gift boxes, which decreased CO2 emissions by about 120 tonnes (Heur et al., 2016).

When SEs invest in local resources, available resources become more productive and, more crucially, new resources are created. The community's capacity to effectively adjust to unanticipated changes is improved by the new abilities that might be developed in this situation, which can be both concrete and intangible (Magis, 2010).

6. CONCLUDING REMARKS

This study gives a broad overview of the numerous ecosystem vision and mission frameworks that the South African waste management sector has verified. Unsurprisingly, the interviewees commonly cited the improvement in people's living conditions as the most significant result of social enterprises. The mission of SE and the company's financial performance improvement are compatible.

In South Africa, there are thousands of waste garbage pickers who rely on the recovery of recyclables from municipal rubbish for their living. Social entrepreneurship (SE) has relevance when SEs increase the means of subsistence for those working in the industry; this has a positive impact on their lives in the community.

Social entrepreneurship theorists assert that supplying the purported public benefits through SEs is a second-best option that acts as an institutional bandage until the government has the resources to fulfill its obligation because SEs have the capacity to fill individual deficiencies (Santos, 2012). As a result, Kayser and Budinich (2015) pursue prosocial ideals that focus on how their operation and extensive network can assist to navigate the challenges of regulatory environments. SEs, such as this, serve low-income rural customers or those in the townships where they manage and focus on how community's poverty, inequality, and loss of human dignity can be addressed holistically (Kajiita & kang'ethe, 2020).

REFERENCES

- Abadi, B., Mahdavian, S., Fattahi, F. (2021). The waste management of fruit and vegetable in wholesale markets: Intention and behaviour analysis using path analysis. *Journal of Cleaner Production* 279. 123802.
- Abel, D.J. (2014). Perceptions on Illegal Dumping in the eThekweni Municipality. Ph.D. Thesis, University of the Free State, Free State, South Africa.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(1): 179–211.
- Alexander, C. S., Becker, H. J., (1978). The use of vignettes in survey research. *Public Opinion Quarterly*, 42(1): 93-104.
- Alter, S. K. (2006). Social Enterprise Models and Their Mission and Money Relationships, in A. Nicholls (Ed.), *Social Entrepreneurship. New Models of Sustainable Social Change*, Oxford University Press, Oxford, 205-232.
- Alur, S., Schoormans, J.P.L. (2011). Sustainable Rural Healthcare and Social Franchisee Selection - an India Study. *Journal of Medical Marketing* 11(3): 230-236.
- Alvesson, M., Sköldbberg, K. (2018). 3rd edition, *Reflexive Methodology: New Vistas for Qualitative Research*. London: Sage.
- Ambati, N.R. (2019). Social Innovation Practices in Sustainable Waste Management: Case Study of Successful Social Enterprises in Ahmedabad. *International Journal of Scientific & Technology Research*. 8 (12): 1978-1985.
- Ayeni, A.W., Ogunnaike, O., Ayeni, E., Iyiola, O. (2021). Harnessing the sustainable competitive advantage of social motivation in the informal market: A West African society insight. *Heliyon* 7: e07538
- Bacq, S. C., Alt, E. (2018). Feeling capable and valued: A prosocial perspective on the link between empathy and social entrepreneurial intentions. *Journal of Business Venturing*, 33(3): 333–350.
- Baker, J.L. (2012). *Climate Change, Disaster Risk, and the Urban Poor Cities Building Resilience for a Changing World*, World Bank, Washington DC, USA.
- Benoot, C., Hannes, K., Bilsen, J. (2016). The use of purposeful sampling in a qualitative evidence synthesis: A worked example on sexual adjustment to a cancer trajectory. *BMC Med Research Methodology*, 16(21): 1-12.

-
- Besley, T., Ghatak, M. (2018). Pro-Social Motivation and Incentives, *Annual Review of Economics*, 18. 1-48
- Bewayo, E. D., Portes, L. S. V. (2016). Environmental Factors for Social Entrepreneurship Success: Comparing Four Regions. *American Journal of Management*, 16(4): 39–56.
- Bowles, S. (1998). Endogenous Preferences: The Cultural Consequences of Markets and other Economic Institutions, *Journal of Economic Literature*, 36(1), 75-111.
- Bowles, S. (2016). *The Moral Economy: Why Good Incentives are No Substitute for Good Citizens*, Yale: Yale University Press.
- Carboni, J. L., Dickey, T., Moulton, S., O'keefe, S., O'leary, R., Piotrowski, S. J., Sandfort, J., (2019). Start with the problem: Establishing research relevance with integrative public administration. *Perspectives on Public Management and Governance*, 2(4): 267-274.
- Certo, S. T., Miller, T. (2008). Social entrepreneurship: Key issues and concepts. *Business Horizons*, 51(1): 267–271.
- Charles, G. (2019). Sustainability of social enterprises involved in waste collection and recycling activities: Lessons from Tanzania, *Journal of social entrepreneurship*, <https://doi.org/10.1080/19420676.2019.168671-2>
- City of Cape Town (CoCT) (2019). Prevent Unofficial Waste Disposal. Available at: <http://www.capetown.gov.za/local%20and%20communities/community-health-and-safety/health-y-environment/prevent-illegal-dumping> (accessed on 15 July 2021).
- Choi, N., Majumdar, S. (2014). Social entrepreneurship as an essentially contested concept: opening a new avenue for systematic future research, *Journal of Business Venturing*, 29(3): 363-376.
- Collect-a-Can. (2011). A Walk-through History with Collect-a-Can. March 2011. Available at: http://collectacan.co.za/index.php?option=com_content&view=article&id=128:march-2011-a-walk-through-history-with-collect-a-can&catid=5:junepres (accessed on 13 May 2021).
- Collewaert, V., Anseel, F., Crommelinck, M., De Beuckelaer, A., Vermeire, J. (2016). When passion fades: Disentangling the temporal dynamics of entrepreneurial passion for founding. *Journal of Management Studies*, 53(6): 966-995.
- Comerford, E., Durante, J., Goldsworthy, R., Hall, V., Gooding, J., Quinn, B. (2018). Motivations for kerbside dumping: Evidence from Brisbane, Australia. *Waste Management*, 78: 490–496.
- Czarniawska, B., (2004). *Narratives in social science research*. London.
- Davidsson, P. (2015). Entrepreneurial opportunities and the entrepreneurship nexus: a re-conceptualization”, *Journal of Business Venturing*, 30(5): 674-695.
- Denzin, N., Lincoln, Y. (2005). *The Sage handbook of qualitative research*. 3rd ed. London: Sage.
- Di Domenico, M., Haugh, H., Tracy, P. (2010). Social bricolage: Theorizing social value creation in social enterprises. *Entrepreneurship Theory and Practice*, 34(4): 681–703. doi:10.1111/j.1540-6520.2010.00370.x
- Dladla, I., Machete, F., Shale, K., 2016. A review of factors associated with indiscriminate dumping of waste in eleven african countries. *African Journal of Science*
-

and Technology Innovation and Development 8(5–6):475–481.

Dodds, L., Hopwood, B. (2006). Ban waste, environmental justice and citizen participation in policy setting. *Local Environment*, 11(3): 269-276.

Dudovskiy, J. (2019). *Purposive sampling*. Available at: <https://researchmethodology.net/sampling-in-primary-data-collection/purposive-sampling/> (accessed on 24 June 2021).

Ebrashi, R. E. (2013). *Social entrepreneurship theory and sustainable social impact*. *Social Responsibility Journal*, 9(2): 188–209.

Ferrara, I. (2008). Waste Generation and Recycling. In *Household Behaviour and the Environment. Reviewing the Evidence; Organisation for Economic Co-operation and Development (OECD): Paris, France*, pp. 19–58.

Fin24. (2018). SA's social entrepreneurs - going from surviving to thriving <https://www.fin24.com/Opinion/sas-social-entrepreneurs-going-from-surviving-to-thriving-20180615>. (Accessed on 19 October 2021).

Frost, P. J., Dutton, J. E., Maitlis, S., Lillius, J. M., Worline, M. C. (2006). Seeing organizations differently: Three lenses on compassion, In Clegg, S.R, Hardy, C., Lawrence, T., & Nord, W.R., (Eds.), *Handbook of Organization Studies* (2nd ed.), Sage, London, pp. 843–866.

Frost, P., Dutton, J., Worline, M., Wilson, A. (2000). Narratives of compassion in organizations, In Fineman, S., (Ed.), *Emotion in organizations*, Sage, London, pp. 25–45.

Ghalwash, S., Tolba, A., Ismail, A. (2017). What motivates social entrepreneurs to start social ventures? An exploratory study in the context of a developing economy, *Social Enterprise Journal*. 13(3): 268-298.

Gioia, D.A., Corley, K.G., Hamilton, A.L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organisational Research Methods*. 16(1): 15-31.

Godfrey, L., Ahmed, M.T., Gebremedhin, K.G., Katima, J.H.Y., Oelofse, S., Osibanjo, O., Richter, U.H., Yonli, A, H. (2019). Solid Waste Management in Africa: Governance Failure or Development Opportunity? Edited by Norbert, E. (ed). *Regional Development in Africa*, Intech Open. DOI: 10.5772/intechopen.86974

Godfrey, L., Oelofse, S. (2017). Historical Review of Waste Management and Recycling in South Africa, *Resources*, 6, 57:doi:10.3390/resources6040057 www.mdpi.com/journal/resources

Godfrey, L., Strydom, W., Phukubye, R. (2016). *Integrating the Informal Sector into the South African Waste and Recycling Economy in the Context of Extended Producer Responsibility*; CSIR Briefing Note: Pretoria, South Africa.

Goetz, J. L., Keltner, D., Simon-Thomas, E. (2010). Compassion: An evolutionary analysis and empirical review. *Psychological Bulletin*, 136(3): 351–374.

Gonçalves, C.P., Carrara, K., Schmittel, R.M. (2016). The phenomenon of social enterprises: are we keeping watch on this cultural practice? *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*. 27(4): 1585-1610.

-
- Grant, A.M., Berg, J.M. (2012). Prosocial motivation at work. When, why, and how making a difference makes a difference, in: Cameron, K.S., Spreitzer, G.M. (Eds.), *The Oxford Handbook of Positive Organizational Scholarship*, Oxford University Press, Oxford/New York, pp. 28–44
- Hall, A., Clark, N. (2010). What do complex adaptive systems look like and what are the implications for innovation policy? *Journal of International Development*, 22:308–324.
- Haug, H. M., Talwar, A. (2016). Linking social entrepreneurship and social change: The mediating role of empowerment. *Journal of Business Ethics* 133 (4): 643-658.
- Hanekom, A. (2019). Replacing plastic: blessing or curse? Proceedings of the 2019 Propak Africa conference, Johannesburg, 12-15 March 2019.
- Heuër, A., Liebl, J., Agster, R., Meyer, C. (2016). All Women Recycling: Empowering women in South Africa through plastic recycling. Technical Report.
- Hidalgo, D., Martín-Marroquín, J.M., Corona, F. (2017). Innovative Waste Management Practices in Remote Areas. *International Journal of Environment & Ecology Engineering*, 11: 581–585.
- Howes, S. (2015): *Sustainable Waste Management: International perspective*. Sussex, England: John Wiley and Sons.
- Ichinose, D., Yamamoto, M. (2011). On the relationship between the provision of waste management service and illegal dumping. *Resource and Energy Economics*, 33, 79–93.
- Kajiita, R.M., Kang’ethe, S.M. (2020). Investing in People and Communities for Social Change: Lessons from Social Enterprises in South Africa, *Journal of Progressive Human Services*, 31:2, 126-143.
- Kanov, J. M., Maitlis, S., Worline, M. C., Dutton, J. E., Frost, P. J., Lilius, J. M. (2004) Compassion in organizational life. *American Behavioral Scientist*, 47: 808–827.
- Kayser, O., Budinich, V. (2015). Lighting, in: *Scaling Business Solution Social Problems*., Palgrave Macmillan.
- Kaza, S., Yao, L.C., Bhada-Tata, P., Van Woerden, F. (2018). *What a waste 2.0: A global snapshot of solid waste management to 2050*. Washington, DC: World Bank, Washington, D.C.
- Lamasanu, A., Mihai, F. (2015). The Illegal Dumping of Waste in Forest Areas-Evidence from Rural Territory. In *Proceedings of the International Conference Integrated Management of Environmental Resources*, Suceava, Romania, 6–7 November, pp. 46–50.
- Li, J., Zuo, J., Cai, H., Zillante, G. (2018). Construction waste reduction behavior of contractor employees: an extended theory of planned behavior model approach. *Journal of Cleaner Production*, 172: 1399-1408
- Linnay, J. (2013). Opportunities and limitations of (social) entrepreneurial approaches: A case study of the recycling sector in Cape Town, South Africa. Queen's University, Canada.
- Littlewood, D., Holt, D. (2018). Social entrepreneurship in South Africa exploring the influence of environment, *Business and Society*, 57: 525-561,
- Lubberink, R. (2020). Social Entrepreneurship and Sustainable Development in *Decent work and economic growth. Encyclopedia of the UN Sustainable Development Goals*. eds. W. L. Filho, A. Azul, L. Brandli, P. Özuyar and T. Wall (Cham: Springer Nature Switzerland)

-
- Ludvig, A., Wilding, M., Thorogood, A., Weiss, G. (2018). Social innovation in the Welsh Woodlands: community-based forestry as collective third-sector engagement. *Forest Policy and Economics* 95:18–25.
- Luke, B., Barraket, J., Eversole, R. (2013). Measuring value versus valuing measures: evaluating performance of social enterprise, *Qualitative Research in Accounting and Management*, 10(3/4): 234-258.
- Lyon, F., Sepulveda, L. (2009). Mapping social enterprises: Past approaches, challenges, and future directions. *Social Enterprises Journal*. 5: 83–94.
- Magis, K. (2010). Community resilience: An indicator of social sustainability. *Society and Natural Resources*, 23(5): 401–416.
- Mair, J., Martí, I., Ventresca, M. (2012). Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. *Academy of Management Journal*, 55, 819-850.
- Mair, J., Marti, I. (2009). Entrepreneurship in and around institutional voids: A case study from Bangladesh, *Journal of Business Venturing*, 24(5): 419-435.
- Mair, J., Martí, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, 41(1): 36–44.
- Mair, J., Noboa, E. (2003). The emergence of social enterprises and their place in the new organizational landscape. Barcelona, Spain: IESE Business School, University of Navarra.
- Makgetla, N. (2010). Rural Development: Synthesis paper. Development Bank of Southern Africa, Midrand.
- Mavropoulos, A., Marinheiro, L., Cohen, P., Law, J., Greedy, D., Loureiro, A., Plimakis, S., Bouldry, T. (2015). A roadmap for closing waste dumpsites: the world's most polluted places. International Solid Waste Association report, Vienna, Austria.
- Medina, M. (2010). Solid wastes, poverty, and the environment in developing country cities: Challenges and opportunities, WIDER Working Paper, No. 2010/23, ISBN 978-92-9230-258-0, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki
- Miles, M. B., Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publications.
- Minola, T., Giuseppe, C., Martin, O. (2016). Age, culture, and self-employment motivation. *Small Business Economics*. 46 (2): 187–213.
- Momoh, J.J., Oladebeye, D.H. (2010). Assessment of awareness, attitude, and willingness of people to participate in household solid waste recycling program in Ado-Ekiti, Nigeria. *Journal of Applied Science & Environmental Sanitation*. 2010, 5: 93–105.
- Molecke, G., Pinkse, J. (2020). Justifying Social Impact as a Form of Impression Management: Legitimacy Judgements of Social Enterprises' Impact Accounts, *British Journal of Management*, 31: 387–402.
- Mollnitz, S., Khodier, K., Pomberger, R., Sc Sarc, R. (2020). Grain size dependent distribution of different plastic types in coarse shredded mixed commercial and municipal waste. *Waste Management*, 103: 388-398.
-

-
- Myers, D. (2013). *Qualitative research in business management*. Newbury Park: Sage Publications.
- Nagpure, A.S. (2019). Assessment of quantity and composition of illegal dumped municipal solid waste (MSW) in Delhi. *Resources. Conservation & Recycling*, 141: 56–60.
- Nampak (2002). Nampak Limited Annual Report 2002. Available at: www.nampak.co.za (accessed on 12 August 2021).
- Niyobuhungiro, R.V., Schenck, C.J. (2020). A global literature review of the drivers of indiscriminate dumping of waste: Guiding future research in South Africa. *Development Southern Africa*, 39(22): 321-337.
- Nowicki, L. (2019). Reconsidering South Africa's approach to waste pickers. *groundUp*, 22 February. Available at: <https://www.groundup.org.za/article/reconsidering-south-africas-approachwaste-pickers/> (accessed on 28 May 2022).
- Nussbaum, M. (1996). Compassion: The basic social emotion. *Social Philosophy and Policy*, 13: 27–58.
- Nussbaum, M. C. (2003) *Upheavals of thought: The intelligence of emotions*, Cambridge University Press, London.
- Nicholls, A. (2010). The legitimacy of social entrepreneurship: reflexive isomorphism in a pre-paradigmatic field *Entrepreneurship Theory and Practice*, 34 (4): 611-633.
- Nkosi, L.F. (2014). An evaluation of the municipal solid waste management system within the City of Tshwane Metropolitan municipality, in Memelodi East Township, Gauteng province of South Africa, Master of Public Health Thesis, University of Pretoria.
- Noble, R.G. (1976). *Solid Waste Research in South Africa*; South African National Scientific Programmes, Report No. 4; Council for Scientific and Industrial Research: Pretoria, South Africa, June. Available at: http://researchspace.csir.co.za/dspace/bitstream/handle/10204/2236/SANSP_20004_20.pdf (accessed on 18 October 2017).
- Ozgen, E., Baron, R. A. (2007). Social sources of information in opportunity recognition: Effects of mentors, industry networks, and professional forums. *Journal of Business Venturing*, 22(2): 174-192.
- Parikha, P., Bisaga, I., Loggia, C., Georgiadou, M.C., Ojo-Aromokudu, J. (2020). Barriers and opportunities for participatory environmental upgrading: Case study of Havelock informal settlement, Durban. *City and Environment Interactions*, 5:100041
- Plaskoff, J. (2012). Building the heart and the mind: An interview with leading social entrepreneur Sarah Harris. *Academy of Management Learning & Education*, 11:432-441.
- Plastics SA. (2019). National plastics recycling survey 2018: Recycling is the realization of the plastic's circular economy. Available at: <https://www.plasticsinfo.co.za/recycling/> (Accessed on 20 May 2021).
- Renko, M., Kroeck, K.G., Bullough, A. (2012). Expectancy theory and nascent entrepreneurship. *Small Business Economics*, 39: 667-684.
-

-
- Santos, F. M. (2012). A Positive Theory of Social Entrepreneurship. *Journal of Business Ethics*, 111(3), 335–351.
- Saunders, M., Lewis, P. (2012). Doing Research in Business & Management. An Essential Guide to. <https://doi.org/10.1007/s13398-014-0173-7.2>
- Seelos, C., Mair, J. (2005). Social entrepreneurship: Creating new business models to serve the poor. *Business Horizons*, 48: 241-246.
- Sentime, K. (2014). The impact of legislative framework governing waste management and collection in South Africa. *African Geographical Review*. 33(1): 81-93.
- South African Department of Cooperative Governance and Traditional Affairs (2016). Report highlights cost of basic services, Available at: <https://www.sanews.gov.za/south-africa/report-highlights-cost-basic-services> (Accessed on 24 October 2021).
- South African Department of Environmental Affairs (DEA). (2019). Operation Phakisa: Chemicals and Waste Economy. Lab outcomes; Department of Environmental Affairs, Planning, Monitoring and Evaluation: Pretoria, South Africa.
- South African Department of Environmental Affairs (2018a). National Waste Information Baseline Report. Department of Environmental Affairs, Pretoria.
- South African Department of Environmental Affairs (2018b). South Africa State of Waste Report (Draft Zero). Department of Environmental Affairs, Pretoria.
- South Africa Department of Environmental Affairs (2017). SWITCH Africa Green: Review of laws, policies, and business environment. Country Implementation Report and Plan: South Africa. Pretoria, South Africa
- South African Department of Environmental Affairs (2016). South Africa State of Waste Report. Department of Environmental Affairs, Pretoria.
- South African Department of Environmental Affairs and Tourism (2000). White Paper on Integrated Pollution and Waste Management for South Africa. A Policy on Pollution Prevention, Waste Minimisation, Impact Management and Remediation. Government Gazette No. 20978, Notice No. 227. Pretoria
- South African Department of Environmental Affairs and Tourism (DEAT) (1999). *National Waste Management Strategies and Action Plans South Africa*; Strategy Formulation Phase. National Waste Management Strategy, Version D; DEAT: Pretoria, South Africa, 15 October.
- South African Department of Science and Technology (2013). South African Waste Sector-2012. An analysis of the formal private and public waste sector in South Africa. In *A National Waste RDI Roadmap for South Africa: Phase 1 Status Quo Assessment*; Department of Science and Technology: Pretoria, South African, Available at: http://wasteroadmap.co.za/download/waste_sector_survey_2012.pdf (accessed on 2 October 2020).
- Sullivan Mort, G., J. Weerawardena, and K. Carnegie (2003). Social Entrepreneurship: Toward Conceptualization, *International Journal of Nonprofit and Voluntary Sector Marketing* 8(1): 76–88.
-

-
- Tsega, A.F. (2013). Institutional and community awareness on the environmental impact of solid waste management practice: the case of Shambu Town, in Horo Guduru Wellega Zone, Oromia Regional State. Master's thesis, Haramaya University, Oromia Regional State, Ethiopia.
- Tucker, R., Croom, R. M. (2021). A Xenophilic Perspective of Social Entrepreneurship. *Journal of Business Venturing Insights* 15: e00217.
- Vickers, I., Lyon, F. (2014). Beyond green niches? Growth strategies of environmentally-motivated social enterprises. *International Small Business Journal*. 32(4): 449-470.
- Wang, F., Cheng, Z., Reisner, A., Liu, Y. (2018). Compliance with household solid waste management in rural villages in developing countries. *Journal of Cleaner Production*. 202: 293–298.
- Wanyoike, C.N., Maseno, M. (2021). Exploring the motivation of social entrepreneurs in creating successful social enterprises in East Africa, *New England Journal of Entrepreneurship*. 2574-8904. DOI 10.1108/NEJE-07-2020-0028
- World Bank. (2020). The World Bank in South Africa: Overview. <https://www.worldbank.org/en/country/southafrica/overview>. (Accessed on 19 October 2021).
- World Bank (2017). Emerging social enterprise ecosystems in East and Southern African countries: a diagnosis of supporting environments of social enterprises in Kenya, Malawi, Rwanda, South Africa, Tanzania, Uganda and Zambia, Washington DC.
- Yin, R. K. (2018). *Case study research: Design and methods (6th edition)*. Sage Publications, Inc.
- Yu, D., Blaauw, P.H., Schenk, R. 2020. Waste pickers in informal self-employment: Over-worked and on the breadline, *Development Southern Africa*. 37(4): DOI:10.1080/0376835X.2020.1770578
- Ziraba, A.K., Haregu, T.N., Mberu, B. (2016). A review and framework for understanding the potential impact of poor solid waste management on health in developing countries. *Archives of Public Health*, 74.

SSIRC 2023-101**EXPLORING POULTRY FARMERS' AWARENESS OF EXTERNAL CAUSES OF FINANCIAL DISTRESS IN NORTH WEST PROVINCE****A.J. Meintjes**

North-West University, South Africa

H.P. Mfulwane

North-West University, South Africa

ABSTRACT

This qualitative exploratory study explores the awareness and causes of the financial distress of poultry farmers in the North West Province. There are challenges that the poultry industry faces that have the potential to lead poultry farms into a state of financial distress. Financial distress can be caused by either internal or external factors. This paper focuses on the factors causing poultry farmers' financial distress. Using the Morse and Field approach to analysing qualitative data, external causes of financial distress in the poultry industry were determined. The findings indicate that loadshedding, infrastructure, fuel prices, dumping, technology, diseases, and government policy are among the external factors causing poultry farmers' financial distress. The awareness of these external factors can help poultry farmers consider and better prepare for times of financial distress in their farms to avoid being bankrupt. The study contributes to the theoretical and empirical literature on financial distress in the poultry industry.

KEYWORDS: external causes; financial distress; poultry farming

1. INTRODUCTION

The poultry industry in South Africa is growing and is a major contributor to the country's economy. The industry is the largest single contributor to the agricultural sector in South Africa (SAPA, 2021). The industry provides direct and indirect employment to over 110 000 people; it is the second-largest consumer of maize; and supports many peripheral businesses (including the feed industry) and those downstream in the value chain (SAPA, 2019). The industry has been experiencing challenges that have a negative influence on the successful functioning of the poultry industry itself and the economy (Poojitha et al., 2020). These challenges could potentially lead poultry farmers into a state of financial distress. Financial distress is a problem in almost all the markets in the world. It negatively influences the business' employees, shareholders, lenders, and other stakeholders (Madhushani & Kawshala, 2018).

In this study, the awareness of external causes of financial distress of poultry farmers in the North West Province is explored. Within the South African economic context, the North West Province has a large and significant local economy. The region contributes approximately 5.7% of the national output, with mining, agriculture, and manufacturing accounting for most of the provincial production (NWDC, 2016). According to Van Zyl (2019), the North West Province represents 20% of the arable land in the country and is a highly productive agricultural area with key role players in the poultry industry. The Northern Cape and North West Provinces are home to the

largest number of birds (broiler and layer), with the Northern Cape at 21.8% of the national total, followed by the North West Province at 20.8% (SAPA, 2017).

According to Nkukwana (2018), there is still a great need for industry-academic partnerships to engage in innovative research to generate a knowledge economy in poultry production in South Africa for extensive and sustainable use locally and internationally. Gerber (2020) claims that businesses tend to fail without much warning, and it appears that the measures put in place to predict or indicate financial distress leave stakeholders with a deficiency of information. If any business' financial health deteriorates, the business deals with financial distress, which can develop into a financial crisis and later become bankrupt (Klepac & Hampel, 2017). Therefore, poultry farmers' knowledge of the causes of financial distress and challenges faced in the poultry industry needs to be explored. Knowledge of the potential causes of financial distress and how to prepare for financial distress will better prepare farmers for times of financial distress and possibly avoid bankruptcy.

2. LITERATURE REVIEW

The South African poultry industry remains the largest contributor to the agricultural sector, accounting for 19.6% of total agricultural gross value and 40% of animal products (SAPA, 2017). Poultry production has been of great assistance in meeting the nutritional needs of all ages of humans, by providing a constant protein source, strengthening the financial capacity, and fitting well into commonly embraced farming schemes (Fanadzo 2013; Idowu et al., 2018). In addition to its importance as a source of food and its contribution to the nation's gross domestic product, the South African poultry industry remains an important contributor to job creation and employment opportunities, both in the formal and informal sectors, with an excess of 80% of the industry consisting of SMMEs (small, medium and micro-enterprises), thereby making it an important sector in the South African quest to reduce unemployment and food insecurity (Mkhabela & Nyhodo, 2011). Poultry meat is nutritious. Besides being rich in protein, poultry meat is a good source of phosphorus and other minerals, and of B-complex vitamins. It contains less fat than most cuts of beef and pork (FAO, 2023). The majority of South Africa's population obtains affordable animal protein from poultry, making it crucial for maintaining the country's food security (NAMC, 2023).

Nevertheless, apart from the advantages of poultry, there is a series of challenges faced by poultry farmers in South Africa. These challenges are disease outbreaks, dumping, feed costs and electricity prices, among others. This paper focuses on the external factors that influence or have an effect on the North West Province poultry industry. The challenges that the poultry industry faces influence farmers' finances, which could potentially lead to low performance in the poultry industry. According to Paul (2015), the poultry industry's low performance is due to farmers' inadequate financial management techniques, among other factors. Businesses can go bankrupt due to financial difficulties or financial distress (Chandio & Anwar, 2020). Financial distress is described by Ratna and Marwati (2018) as a stage of financial decline preceding bankruptcy or liquidation. According to Moleong (2018), financial problems (financial distress) occur when a business is unable to meet its payment obligations or when cashflow forecasts suggest the business

will soon be unable to meet its obligations. Financial distress can be caused by either internal or external factors. External, also known as strategical causes of financial distress, are usually caused by wrong positioning in the market and are not clearly visible to the decision-maker. In contrast, internal, also known as operational causes, are internal influences usually caused by inefficiencies or managerial deficiencies (Marx et al., 2017). Memba and Job (2013) assert that external causes of financial distress are pervasive and can impact any market-based business. The term *external causes* refer to situations that arise outside of a business' boundaries and are not under management's control (Lukason & Hoffman 2014). This paper explores the external causes of poultry farmers' financial distress.

A study by Michalkovaa et al. (2018) was conducted on the analysis of causes of businesses' financial distress. Memba and Job (2013) conducted a study titled *Causes of financial distress: a survey of firms funded by industrial and commercial development corporation in Kenya*. Additionally, a study on *the determinants of financial distress in small and medium enterprises: a case study of Nairobi country* was conducted by Muthoni (2018). Limited research has been conducted on the awareness and causes of financial distress in the poultry industry, with no apparent research conducted in the South African poultry industry. A study concerning these constructs within a South African poultry farming context can contribute to the success of poultry farmers. Clarity and awareness within this context may assist poultry farmers in having an idea of what the possible external causes of financial distress are and for them to better prepare to respond to financial distress situations.

The primary objective of this study was to explore the awareness and causes of financial distress in the North West Province's poultry industry. The secondary objectives of this study include contextualising awareness and causes of financial distress in the North West Province poultry farming industry, investigating poultry farmers' awareness of financial distress, investigating poultry farmers' awareness of internal causes of financial distress, investigating poultry farmers' awareness of external causes of financial distress and investigating whether poultry farmers are prepared to respond to financial distress.

3. METHODOLOGY

The purpose of this section is to explain the research methodology implemented to address the research problem of this study and to achieve both the primary and secondary objectives that were formulated. The research design, sampling method, research instrument, data collection method and data analysis are discussed below, indicating the procedures followed to achieve this study's research objectives.

3.1 Research design

Research design is defined as a designed plan of action that the researcher will follow during a research project (Braun & Clarke 2022; Creamer 2018; Berndt & Petzer, 2011). Creswell (2014) posits that research designs are types of analysis within the qualitative, quantitative, and mixed-methods approach. A research design can be classified into three categories: descriptive research, causal research, and exploratory research (Feinberg et al., 2013; Hair et al., 2013). The research design used in this study is the exploratory research design. An exploratory research design is

qualitative in nature. It is a broad research design that is implemented to generate ideas, gives the researcher direction and insight into broad and ambiguous research problems and is used to clarify a problem that is not clearly defined (Hair et al., 2017; Kardes et al., 2015; Cant & Van Heerden, 2015). This research design is most suitable as it aids in providing the researcher with insight into the awareness and causes of financial distress of poultry farmers in the North West Province.

3.2 Sampling method

The sampling method used in this study is a non-probability sampling method, which comprises four types of sampling: judgement (purposive), snowball, quota, and convenience (Brown et al., 2018; Malhotra, 2010). The participants for this study were chosen using a combination of the judgement and convenience sampling techniques. Mooi et al. (2018) define convenience sampling as data collection from readily and conveniently available respondents. This study uses the convenience sampling technique because it is cost-effective and requires minimal effort, as the sampling units are accessible, easy to evaluate and cooperative (Malhotra et al., 2017; Jensen & Laurie, 2016).

On the other hand, judgement sampling is a homogenous sampling technique that focuses on people who share similar traits or experiences, such as age, culture, jobs, or life experiences (le Roux, 2019). In qualitative research, judgement sampling is commonly used to identify and select information-rich cases related to the phenomenon of interest (Palinkas et al., 2015). As a result, because information-rich individuals (poultry farmers) are important for the study, the judgement sampling technique was deemed the best sampling technique for the study as it allowed the researcher to judge the inclusion and exclusion criteria and select the farmers with the most useful knowledge.

3.3 Research instrument

The research instrument used in this study is semi-structured in-depth interviews. The interviews were audio-taped with permission from the participants to ascertain an accurate account of the interview, which can be replayed for analytic purposes. Anonymity was assured during the recordings.

3.3.1 Interview guide

Section A: Introduction of the study and background information of participants

Section B: Awareness and causes of financial distress.

Section C: Effect of COVID-19 on the poultry industry

Section D: Preparedness to respond to financial distress situations.

Section E: Closure

3.4 Data collection

This study used in-depth interviews to collect data. In-depth interviews are unstructured, direct, personal interviews conducted between a qualified interviewer and a respondent for the

4.1 Findings

The participants were asked what external financial problems they had on the farm. In instances where participants did not know any, probing questions were asked to gather information on the external causes of financial distress that poultry farmers have. Technology, infrastructure, diseases, fuel prices, government policy, dumping, and loadshedding are the external causes of financial distress (as reported below).

4.1.1 Dumping

According to SAPA (2021), there is evidence that certain countries have been dumping frozen chicken portions onto the South African market, resulting in unfair competition for both large and small local producers and the loss of local jobs. Dumping was reported by participants as an external cause of financial distress. The poultry industry is struggling to remain competitive due to loads of imported dark chicken meat being dumped in this market by other countries at prices lower than the cost of local production. This has negatively impacted both large and small producers and the employment rate (Nkukwana, 2018). Larger producers cut production and smaller ones go out of business. Lack of growth in an industry that is a large employer in the country contributes to high unemployment levels (SAPA, 2021).

Poultry dumping affects not only businesses in the industry but also consumers. Farmers increase their prices to keep their business afloat, which, in turn, affects the consumer (Mncwango, 2023). Consumers buy frozen chicken rather than fresh chicken due to affordability and some consumers cannot afford chicken priced at a high cost. Most of the products that are dumped are imported frozen, processed, and repackaged in bulk, making it difficult to trace when they had originally been processed (Tshabalala, 2022).

Dumping is a significant concern in the South African poultry industry. Broiler farms campaigned for government intervention to control cheap poultry imports and egg producers found themselves in a situation of oversupply and decreasing returns (SAPA, 2019). Below are some of the responses made by participants on dumping as an external cause of financial distress in the poultry industry.

“The major negative influence of dumping. The quality of the imported chickens is most of the time poor. Dumping is also a major problem for other developing countries” – Participant B

“Dumping has a negative impact on the poultry industry” – Participant F

“Dumping is another big problem, and imports are hurting us. We cannot compete with the prices of imported chickens, and therefore makes poultry farming not feasible” – Participant C

4.1.2 Technology

Information and communication technology in agriculture or e-agriculture is an emerging technology to enhance the agricultural industry. It involves the use of information and communication in innovative ways to benefit all farmers (Kushwaha & Raghuvver, 2017). Technology was said to be a major concern in the poultry industry. One of the participants highlighted that technology is an issue because of the ever-changing nature it has. Poultry farmers

not being up to date with the latest technological developments could potentially lead them to financial distress. Below are some of the responses made by participants on technology as an external cause of financial distress in the poultry industry.

“To keep up with changes in technology is the biggest issue because it is as with computers, today you purchase one and tomorrow it is outdated” – **Participant E**

“Technology is a major factor. The use of technology can support the farmer in many ways” – **Participant F**

4.1.3 Diseases

According to one participant, external illness, such as New Castle and Bird flu, can cause financial problems on the poultry farm. In the poultry industry, it is reported that Salmonella and bird flu are among the diseases that could potentially lead a poultry farm into financial distress. The recent outbreak of avian influenza was the largest in the history of the South African poultry industry, with greater losses of poultry and eggs, trade restrictions and market losses (Nkukwana, 2018). Below are some of the responses made by participants on diseases as an external cause of financial distress in the poultry industry.

“The bird flu had a very negative influence on many hens, and they were taken out of the market” – **Participant A**

“Salmonella is a big threat at present due to the mere fact that if the chicken is contaminated with Salmonella, it inhibits growth, and you do not have the correct chicken” – **Participant J**

“The biggest threat is Salmonella and some of the chicken diseases, especially in the small chickens, which we intercept mostly as we inoculate them in the hatchery.” – **Participant L**

4.1.4 Government policy

Kisman and Krisandi (2019) postulate that government policies can add to a business' burden borne by the business. For instance, increased tax rates can add to the burden of the business. Government policies have a direct influence on any business. Government policy and changes in government policy have been mentioned in the empirical results of this study as an external cause of financial distress. Below are some of the responses made by participants on government policy as an external cause of financial distress in the poultry industry.

“Government policies coming to us” – **Participant G**

“The absence of discounts in terms of fuel and other government products to support the farmer is also a problem” – **Participant F**

4.1.5 Infrastructure

There is little infrastructure to facilitate the slaughter and marketing of poultry products in small-scale production in South Africa (Nkukwana, 2018). Road infrastructure was reported to be poor. Poor roads damage vehicles, which costs money to renew and maintain. The empirical component of this study indicates that road infrastructure is a factor that could potentially lead a poultry farm into financial distress as it negatively affects the finances of the farm business. Below are some of

the responses made by participants on infrastructure as an external cause of financial distress in the poultry industry.

“Infrastructure in terms of roads is poor” – Participant D

“Road’s infrastructure is falling apart, we have problems” – Participant G

” Infrastructure is a major problem. The cost of sand and rock to improve the standards of roads is very high. The basic service delivery is very poor” – Participant F

4.1.6 Loadshedding

In poultry production, loadshedding leads to loss of egg production due to lighting program disruption, which impacts the cooling of adult broilers with roof irrigation, and heating during the brooding of broiler chicks. The operations of poultry feeding systems with automated drinkers and feeders are another process that is affected during power loadshedding (Chiluwe, 2020). Most participants posited that the influence of loadshedding is a significant contributor to their financial problems as they must buy generators at a high cost and the fuel that goes into the generators. The use of generators due to loadshedding is worsened by the increase in fuel prices. One of the participants highlighted that the purchase of generators has a major influence on the financial aspect of the farm. The empirical component of this study indicates that loadshedding is among the external causes of financial distress in the poultry industry. Below are some of the responses made by participants on loadshedding as an external cause of financial distress in the poultry industry.

“Loadshedding is one of the biggest problems on the farm. The purchase of generators has a major influence on the financial aspects of the farm” – Participant B

“The biggest problem is loadshedding” – Participant C

“Loadshedding is a major problem” – Participant D

4.1.7 Fuel prices

According to Boman (2018), fuel price increases would lead to lower returns for heavily oil-dependent industries. The fuel price increases result in higher operational costs and fares charged to recover incurred losses (Bronkhorst, 2019). The increase in the fuel price has a significant influence on the poultry industry as generators use fuel. With the issue of loadshedding, farmers had to purchase generators to keep their poultry houses running. Below are some of the responses made by participants on fuel prices as an external cause of financial distress in the poultry industry.

“The high cost of diesel and the escalation thereof is a major problem” – Participant A

“The cost of diesel and fuel is also a big problem” – Participant C

“The current situation in South Africa is the rise in fuel prices” – Participant H

4.2 Discussion

The farmers’ number of years in poultry farming, type of poultry farming and scale of poultry farm were used as categories to gather the participants’ background information. This theme was

important to examine how the farmers' background information might influence their awareness and causes of financial distress. Most of the participants interviewed were broiler poultry farmers who started on a small scale and later moved to a commercial scale. The participants with the greatest number of years (experience) in farming poultry had more to say on the causes of financial distress.

External causes of financial distress are mostly beyond the control of the farmer. The findings of this study indicate that loadshedding, fuel prices, dumping, infrastructure, technology, diseases, and government policy are external causes of financial distress in the poultry industry. Knowing and being aware of these causes could potentially help poultry farmers to be better prepared for times of financial distress.

Loadshedding poses major financial implications in the poultry industry. With loadshedding, poultry farmers are required to have backup generators on their farms, which are expensive. These generators require fuel to run, making the use of generators even more expensive. Dumping is among the current and future challenges that the poultry industry faces. Dumping jeopardises the country's food security and negatively impacts job creation and economic growth. Changes in government policy could potentially assist with the issue of dumping in South Africa. Disease outbreak remains one of the challenges that have been constant in the poultry industry. Salmonella, bird flu and avian influenza are among the common diseases prominent in the poultry industry. Biosecurity was reported by the participants as an important measure in ensuring that diseases do not spread on the farm. According to SAPA (2021), the quality of day-old chicks, competition, bird theft, location, and inadequate assistance from local veterinarians are also causes of financial distress for farmers.

Poultry farm profitability could be damaged due to poor financial management practices and a lack of awareness of factors that could potentially influence poultry finances. Poultry farmers can use financial distress as an early warning sign before their farm business enters bankruptcy. According to Minh (2023), the poultry industry has expressed fears of bankruptcy due to growing costs and increasing incidences of smuggling. Knowledge of the causes of financial distress and measures poultry farmers can use to better prepare for times of financial distress could aid in alleviating bankruptcies in the poultry industry.

Farmers reported that it is important to have contingency plans on the farms to better prepare for times of financial distress. Backup generators, backup water supplies, cash reserves and good relationships with suppliers were mentioned by participants as contingency plans on their farms. The effect of COVID-19 on the poultry industry was also investigated. The COVID-19 pandemic was reported by most participants to have not had much effect on the poultry farms. The pandemic did not affect the farm operations. Participants reported that they spent most of their money on the purchase of protective equipment (masks and sanitizers).

5. CONCLUSION AND RECOMMENDATIONS

This study concludes that poultry farmers in the North West Province are aware of loadshedding, fuel prices, infrastructure, technology, diseases, government policy and dumping as external causes of financial distress. Awareness of these factors is important to the overall poultry farmers'

profitability and success. Farmers not being aware of these factors could potentially cause financial strains and later cause their farms to be financially distressed and possibly bankrupt.

The issue of loadshedding is affecting almost all the markets. Without electricity, poultry farms cannot function. The use of generators has been a response mechanism poultry farmer have been using. However, with the rise in fuel prices, poultry farmers find themselves having to pay more to run their poultry farms. The effect of the rise in fuel prices negatively affects poultry farmers' financial health.

To enhance the effectiveness of their contingency plans, farmers need to be aware of the prominent causes of financial distress. These plans include having backup generators, cash reserves, backup water supply systems, and good supplier relationships. More research should be conducted on ways to prepare for times of financial distress in poultry farms and how the use of technology can assist the poultry industry.

No research study is without limitations ((Burns et al., 2017:443). Several limitations were identified. Firstly, the resulting sample size was considerably small due to selecting a feasible and appropriate qualitative approach. Secondly, the literature about the causes of financial distress needs to be more extensive, especially within the poultry industry in South Africa. Thirdly, the study results are based on the data gathered from farmers residing in the North West Province of South Africa. Therefore, this study's findings differ when data is gathered from other provinces in South Africa or other countries. Further research studies could consider gathering data from other geographical areas (provinces or countries), including larger samples of farmers, and be extended to other agriculture industries. Therefore, explore the awareness and causes of financial distress in the agricultural industry.

The researcher recommends that the government should provide subsidies for poultry farmers on their input materials/costs. The government should also investigate amending the current legislation on dumping. The government should start taking the issue of dumping seriously, as this has a negative influence on the overall South African poultry industry. When the poultry industry is affected, this results in the overall country's GDP being affected.

REFERENCES

- Babin, B., and Zikmund, W. (2016). *Exploring marketing research*. 11th ed. Boston, MA: Cengage.
- Babin, B.J., and Zikmund, W. (2016). *Essentials of marketing research*. 6th ed. Boston, MA: Cengage Learning.
- Belk, R., Fischer, E., and Kozinets, R.V. (2013). *Qualitative consumer and marketing research*. London: Sage.
- Boman, V. (2018). *The impact of oil price shocks on household consumption*. Retrieved from <https://www.diva-portal.org/smash/get/diva2:1288967/FULLTEXT01.pdf>.
- Braun, V., and Clarke, V. (2022). *Thematic analysis: a practical guide*. London: Sage.
- Bronkhorst, L. (2019). *Identifying the challenges faced by a private bus operator*. (MBA). North-West University, Potchefstroom.

-
- Brown, T.J., and Suter, T.A. (2014). *Marketing research*. Student ed. Mason: Cengage.
- Brown, T.J., Suter, T.A., and Churchill, G.A. (2014). *Basic marketing research: customer insights and managerial action*. 8th ed. Stanford: Cengage.
- Brown, T.J., Suter, T.A., and Churchill, G.A. (2018). *Basic marketing research: customer insights and managerial action*. 9th ed. Boston, MA: Cengage.
- Bryman, A., and Bell, E. (2011). *Business research methods*. 3rd ed, New York, NY: Oxford University.
- Bryman, A., Bell, E., Hirschsohn, P., Dos Santos, A., Du Toit, J., Masenge, A., Van Aardt, I., and Wagner, C. (2017). *Research methodology: business and management contexts*. Cape Town: Oxford.
- Burns, A.C., and Bush, R.F. (2014). *Marketing research*. 7th ed. Edinburg: Pearson.
- Burns, A.C., Veeck, A., and Bush, R.F. (2017). *Marketing research*. 8th ed. London: Pearson Education.
- Cant, M.C., and Van Heerden, C.H. (2015). *Marketing management: a South African perspective*. 2nd ed. Cape Town: Juta.
- Chandio, J.A., and Anwar, S. (2020). What Causes Financial Distress? A Study of Inflation, Solvency, Profitability and Liquidity: A Random Effect Analysis. *International Journal of Disaster Recovery and Business Continuity*, 11 (3), 3605 – 3618.
- Chiluwe, C. (2020). An investigation into the impact of load-shedding on the operations and finances of commercial farmers: a case of commercial farmers of Mazabuka district. (BA in Business Administration). Cavendish University, Zambia.
- Churchill, G.A., and Iacobucci, D. (2010). *Marketing research: methodological foundations*. 10th ed. Belmont: Cengage.
- Creamer, E.G. (2018). *An introduction to fully integrated mixed methods research*. Los Angeles: Sage.
- Creswell, J.W. (2014). *Research design: qualitative, quantitative, and mixed methods approach*. 4th ed. London: Sage.
- Curry, K., and Banjarnahor, E. (2018). *Financial Distress pada Perusahaan Sektor Properti Go Public di Indonesia*. Seminar Nasional Pakar ke 1 Tahun, 207-208.
- De Jongh, J.J. (2017). Youth employment barriers in the Emfuleni and Metsimaholo local municipal areas. (Master's). North-West University, Potchefstroom.
- Etikan, L., Musa, A.S., and Alkassim, R.S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Food and Agriculture Organization (FAO). 2023. *Poultry in Human nutrition*. Retrieved from <https://www.fao.org/poultry-production-products/products-processing/poultry-in-human-nutrition/en/#:~:text=Besides%20being%20rich%20in%20protein,cuts%20of%20beef%20and%20pork>.
- Feinberg, M.F., Kinnear, T.C., and Taylor, J.R. (2013). *Modern marketing research: concepts, methods, cases*. 2nd ed. New York, NY: Cengage Learning.
- Gafoor, K.A. (2012). Considerations in the measurement of awareness. Retrieved from <https://files.eric.ed.gov/fulltext/ED545374.pdf>
-

-
- Gerber, D. (2020). *An evaluation of financial distress prediction measures for listed companies in South Africa*. (MBA). Potchefstroom, North-West University.
- Hair, J.F., Celsi, M.W., Ortinau, D.J., and Bush, R.P. (2013). *Essentials of marketing research*. 3rd ed. New York, NY: McGraw-Hill.
- Hair, J.F., Hult, G.T.M., Ringle, C.M., and Sarstedt, M. (2017). *A primer on partial least squares structural equation modelling*. 2nd ed. Thousand Oaks, CA: Sage.
- Idowu, P. A., M. Mpayipheli., and V. Muchenje. (2018). “Practices, Housing and Diseases within Indigenous Poultry Production in Eastern Cape, South Africa.” *Journal of Agricultural Science*, 10, 111–121.
- Jensen, E., and Laurie, C. (2016). *Doing real research: a practical guide to social research*. Sydney: Sage.
- Kardes, F.R., Cronley, M.L., and Thomas, W.C. (2015). *Consumer behaviour*. 2nd ed. Stamford: Cengage.
- Kisman, J., Zainul, M., and Krisandi, D. (2019). How to predict financial distress in the wholesale sector: lessons from Indonesian stock exchange. *Journal of Economics and Business*, 2(3), 569-585.
- Kushwaha, M., and Raghuvver, V.R. (2017). Prediction Analysis of Crop Classification using Data Mining Skills. *Journal of the Gujarat Research Society*, 21 (16), 1425-1431.
- Le Roux, D.B. (2019). An inquiry into the management challenges of millennial employees within the hotel industry. (MBA). North-West University, Potchefstroom.
- Liahmad, K.R., Utami, Y.P., and Sitompul, S. (2021). Financial factors and non-financial to financial distress insurance companies that listed on Indonesia stock exchange. *Budapest International Research and Critics Institute Journal*, 4(1), 1305-1312.
- Lukason, O., and Hoffman, R.C. (2014). Firm bankruptcy probability and causes: an integrated study. *International Journal of Business and Management*, 9(11), 80-90.
- Madhushani, I.K.H.H., and Kawshala, B.A.H. (2018). The impact of financial distress on financial performance. *International Journal of Scientific and Research Publications*, 8(2), 393-405.
- Malhotra, N.K. (2010). *Marketing research: an applied orientation*. 6th ed. Upper Saddle River, NJ: Pearson Prentice Hall.
- Malhotra, N.K. (2015). *Essentials of marketing research: a hands-on orientation*. Harlow: Pearson Education.
- Malhotra, N.K., Baalbaki, I.B., and Bechwati, N.N. (2013). *Marketing research: an applied approach*. Essex: Pearson.
- Malhotra, N.K., Nunan, D., and Birks, D.F. (2017). *Marketing research: an applied approach*. 5th ed. Harlow: Pearson.
- Marx, J., de Swardt, C., Pretorius, M., and Rosslyn-Smith, W. (2017). *Financial Management in Southern Africa*. 5th ed. Cape Town: Pearson.
- Mncwango, S. (2023). *Poultry prices: Fresh chicken is now a ‘luxury’*. Retrieved from <https://www.foodformzansi.co.za/poultry-prices-fresh-chicken-is-now-a-luxury/>.
-

- Memba, F., and Job, A. N. (2013). Causes of financial distress: a survey of firms funded by industrial and commercial development corporation in Kenya. *Interdisciplinary Journal of Contemporary Research in Business*, 4(12), 1171-1185.
- Mkhabela, T., and Nyhodo, B. (2011). Farm and retail prices in the South African poultry industry: do the twain meet? *International Food and Agribusiness Management Review*, 14(3), 127-146.
- Moleong, L. C. (2018). Pengaruh Real Interest Rate dan Leverage Terhadap Financial Distress. *MODUS*, 72.
- Mooi, E., Sarstedt, M., and Mooi-Reci, I. (2018). *Market research: the process, data, and methods using Stata*. Singapore: Springer.
- Morse, J.M., and Field, P.A. (1996). *Nursing research: the application of qualitative approaches*. 2nd ed. Cheltenham: Stanley.
- National Agricultural Marketing Council (NAMC). (2023). *South African Poultry Products Price Monitor*. Retrieved from <https://www.namc.co.za/wp-content/uploads/2023/06/Poultry-products-price-monitor-June-2023-003.pdf>.
- Nkukwana, T.T. (2018). Global poultry production: Current impact and future outlook on the South African poultry industry. *South African Journal of Animal Science*, 48(5), 869-884.
- North-West Development Corporation (NWDC). (2016). *Investment North-West*. Retrieved from <https://nwdc.co.za/wp-content/uploads/2016/11/NWDC-INVESTMENT-BOOKLET-LOW.pdf>.
- Palinkas, L.A., Horwitz, S.M., Green, C.A., Wisdom, J.P., Duan, N. and Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544.
- Paul, G. (2015). *Assessment of Financial management practices of poultry farms in the Atwima Kwanwoma district – Ashanti region*. (Masters). Kumasi: Knust School of Business. Ghana.
- Poojitha, S., Kanagala, A., and Podile, V. (2020). Financial perspective of managing a broiler poultry industry. *International Journal of Advanced Science and Technology*, 29(4), 8105 – 8111.
- Ratna, I., and Marwati. (2018). Analisis Faktor-Faktor yang Mempengaruhi Kondisi Financial Distress pada Perusahaan yang Delisting dari Jakarta Islamic Index Tahun 2012-2016. *Jurnal Tabarru': Islamic Banking and Finance*, 54-55.
- SAPA (South African Poultry Association). (2021). *New antidumping duty application highlights chicken industry's ongoing fight against dumped imports*. Retrieved from <http://www.sapoultry.co.za/pdf-news>
- SAPA (South African Poultry Association). (2019). *South African Poultry Association 2019 Industry profile*. Retrieved from www.sapoultry.co.za/pdf-docs/sapa-industry-profile
- SAPA (South Africa Poultry Association. (2017). “*South African Poultry Association Industry Profile, Yearly Bulletin*.” Retrieved from www.sapoultry.co.za
- Standard bank agribusiness SA. (2013). *Finance and farm management*. 5th ed. Johannesburg: Standard bank of South Africa.
- Tarwireyi, L., and M. Fanadzo. (2013). “Production of Indigenous Chickens for Household Food Security in Rural KwaZulu-Natal, South Africa, A Situation Analysis.” *African Journal of Agricultural Research*, 46, 5832–5840.

Tshabalala, T. (2022). *Poultry dumping continues to negatively affect the SA economy*. Retrieved from <https://www.iol.co.za/sundayindependent/news/poultry-dumping-continues-to-negatively-affect-the-sa-economy-387eaa1f-71e7-467c-a041-9879058cd34b>.

Van Zyl, C.C. (2019). *The size and scope of agri-tourism in South Africa*. Potchefstroom North-West University. (Dissertation – Master’s).

SSIRC 2023-103**ENCOURAGING ENTREPRENEURSHIP AT EARLY CHILDHOOD THROUGH PARENTS AND COMMUNITY ENGAGEMENT: INVESTIGATION AT EMFULENI REGION - SOUTH AFRICA****M.L. Ntshingila**

Vaal University of Technology, South Africa

ABSTRACTS

Many businesses have failed due to lack of knowledge and skills to operate them. Hence, it is important to encourage education at an early age. Not only at schools and universities where children can be taught entrepreneurship, but also from home and in societies where they live. A child's personality traits and how he/she has been raised may be associated with entrepreneurial interests and competence. Lack of knowledge, skills and attitude contribute to the high rate of entrepreneurship failure, hence the importance of instilling them in children at an early age. The aim of this paper is to investigate the effects of parents and communities in encouraging an entrepreneurial mindset in children at an early age. Also, to explore how parents and the society apply values to support early childhood entrepreneurship despite the challenges that they are faced with. A randomised area of experience was conducted of parents and society within Emfuleni municipality, Gauteng Province using a quantitative method to assess the contribution of informal entrepreneurship education in early childhood. The research was conducted in the form of 450 questionnaire which were hand delivered by the researcher. We found that teaching entrepreneurship by parents and society at an early age positively affects children's mindset about entrepreneurship as a career. Children must be taught from home and in the community that entrepreneurship adds value to their lives, like any other career. Encouraging informal and formal education to nurture an entrepreneurial mindset in children at an early age is advantageous.

KEYWORDS: Entrepreneurship, Early Childhood, Challenges, Knowledge, Skills, Informal Education

1. INTRODUCTION

In most of our South African communities' both rural and urban areas, children are not encouraged to be entrepreneurs. That means being an entrepreneur is not regarded as a career, like medicine, logistics, accounting, and others. Christianiti, Cholimah and Suprayitno (2015) state that in the family environment, children are still encouraged to be employees rather than entrepreneurs. An environment where a person lives can develop and sharpen someone's behaviour to be what he/she wants or needs (Tyas & Naibaho, 2019), which indicates how an environment can affect a person's mentality whether positively or negatively, especially for young children. Hence, the involvement of community is very important to encourage young people to be involved in entrepreneurial activities. Informal education is important as it is natural and shapes human resources' character at an early age. Furthermore, it provides lifelong learning where individuals and community attitudes and behaviour are developed (Inanna, Rahmatullah, Haeruddin & Marhawati, 2020).

To go beyond an entrepreneurial attitude and different sets of entrepreneurial skills, there is a need for adaptivity and learning competence (Tyas & Naibaho, 2019). Informal learning in this case is when parents teach children by engaging them to help in entrepreneurship at an early age, according to age and abilities. Most of the businesses do not survive long because of negative personal circumstances of an economic, sociocultural, and physical or emotional nature. Hence, this paper addresses the importance of early development of children in entrepreneurship as it addresses the challenges that are faced by adults in businesses as they entered business because of poverty or could not be employed. Effective entrepreneurship is predicted through individuals' backgrounds and personalities (Cheng, Guo, Hayward, Smyth & Wang, 2020). Laying a foundation of teaching children of setting goals and achieving them is very important as that gives them high self-esteem. Also, to learn the value of money and not always spending, is a good start to be able to know how to sustain a business.

South Africa is faced with economic downturn, where the unemployment rate is very high. Additionally, it is recently rated as the highest percentage of unemployment with 30% in African countries which also increases poverty as indicated by Statista (2023). A new acronym, called NEET (Not in education, employment, or training) and a modification called NLFET (Neither in the labour force nor in education or training) was merited due to high unemployment rates in the age group. Hence, World Bank, the United Nations, the Organisation for Economic Cooperation and Development as international bodies came together to look for solutions for unemployment of youth (Jagannathan, Camasso, Das, Tosun & Iyengar, 2017). Entrepreneurship is another tool that can resolve economic local challenges and overcome regional disparities (Drennan, Kennedy & Renfrow, 2005). Moreover, it alleviates poverty and improves economic growth of the country (Handayati, Wulandari, Soetjipto, Wibowo & Narmaditya, 2020). Education and training in entrepreneurship are taught at schools and universities, but it does not provide children with creative thinking on how to have that spirit of striking out for themselves from the curriculum though implementation of the theory that they have learned (Jagannathan *et al.*, 2017). Paço and Palinhas (2011) mention that the reason for children who are not at school level are not considered for entrepreneurship is that they are regarded as dormant audience who remain silent and passive, hence only at secondary and university level entrepreneurship is offered, because that is where self-employment can start (Maure, Neergaard & Linstad, 2009). Hence, the existence of parents and community engagement plays a key role in guiding and assisting children to understand as a tool community development and economic growth.

Giving children tasks to perform and pay for the work done motivates them. Furthermore, this can show an individual behaviour towards entrepreneurship. A few of the entrepreneurship principles that can be identified from a potential entrepreneur child at early childhood are, the ability to generate new ideas, attitude, creativity, and innovation (Windiarti & Astuti, 2017). Tolerance, cooperation and sharing as social behaviours prepare children to have solid minds and strong personalities (Paço & Palinhas, 2011; Windiarti & Astuti, 2017). That being the case, training children to be willing to take risks, work hard and learn from experiences, they can be agents of change within their community. Changing minds from job seekers to job creators, to ensure that they create job opportunities to employ the unemployed (Hutagalung, Ja'far Dalimunthe, Pambudi,

Hutagalung & Muda, 2017). Therefore, parents and community members to be facilitators in training young children, will change their mindset to see challenges as opportunities and not obstacles. To understand the journey to entrepreneurship, this paper explores the determinants of entrepreneurial mindset, specifically focusing on the support of parents and communities towards encouraging entrepreneurship in young children.

2. LITERATURE REVIEW

The encouragement of early entrepreneurship in children by parents and community through informal learning may enhance successful entrepreneurs when they grow up. To facilitate the accomplishment of the research objectives, key variables guiding hypotheses statements are discussed in the sections below.

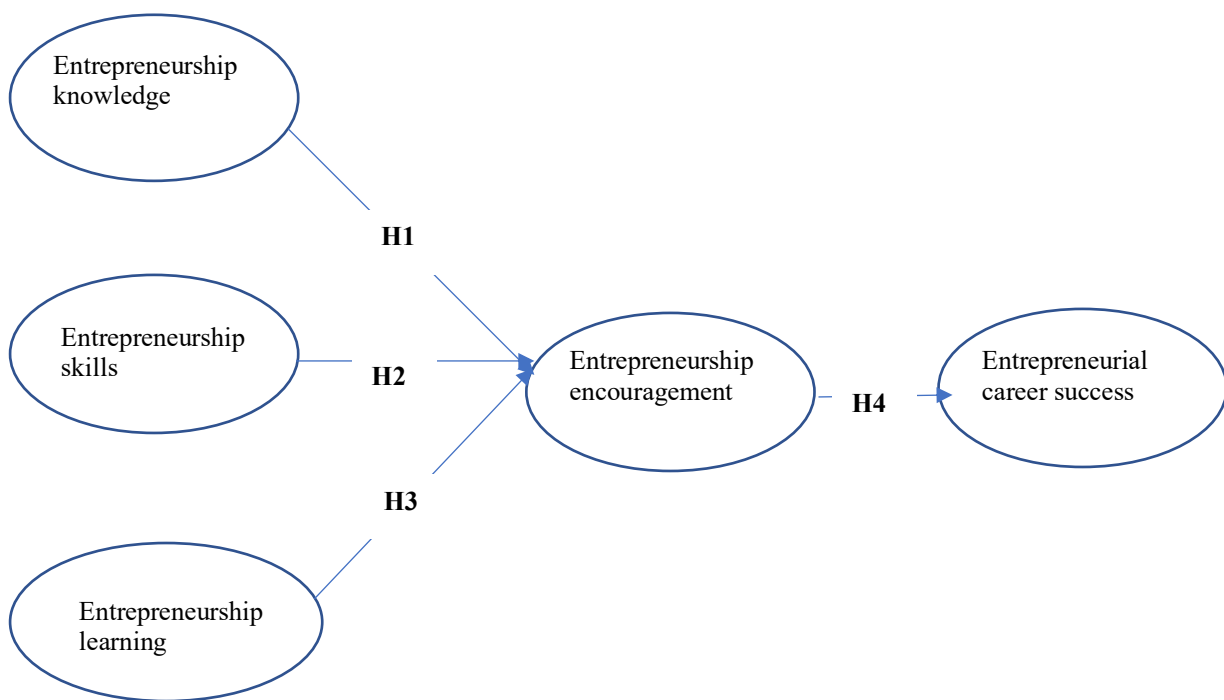


Figure 1: Proposed conceptual framework.

2.1 Impact of parents and community

In South Africa currently there is a high rate of unemployment, which results in many businesses not doing well or failing. Parents and community members have raised some concerns about entrepreneurship children mentoring because people do not have money to buy goods and or services because of high unemployment rate. Even though people are jobless, it is vital for parents to disseminate their skills, knowledge, and capabilities of entrepreneurship to their children. Habidin, Salleh, Latip, Jusoh, Azman, Fuzi & Ong (2016). state that entrepreneurship education, as a process, enables children to identify, analyse and solve problems because entrepreneurship is concerned with creativity, risk taking and innovation. The high employment rate in South Africa can be addressed if parents and the community can cultivate entrepreneurship mindsets in children at an early age. Furthermore, Maziriri, Nyagadza, Maramura and Mapuranga (2022) indicate that

couplepreneurs and kidspreneurship must also be considered as parents' influence plays an important role in their children's behaviour.

Furthermore, children can be successful entrepreneurs based on the experience from their parents' businesses or shared equally by the members of the community who have businesses. Parents can take their children to local markets and exhibitions to market their services and or products (Windiarti & Astuti, 2017). Children can have advantages of opportunity emerging from environmental factors, if they are guided about organisational skills, ability to take risks and the ownership of production factors (Geri, 2013). Family business can have a positive or negative influence on entrepreneurship intentions depending on the parental role model (Drennan *et al.*, 2005).

Less attention has been paid to the informal education that parents and communities can offer children to shape entrepreneurial attitudes.

2.2 Challenges faced in childhood.

Personal, social, and environmental factors can affect adult outcomes. Childhood adversity, which can include the child's interpersonal loss may lead to unpleasant repercussions. A combination of individual and environmental factors can result in an active or inactive entrepreneur depending on the acceptance or rejection of an individual of these factors (Geri, 2013). Disadvantaged individuals work hard as their coping mechanisms to overcome their adversity and they do not take things for granted. Hence, they become successful entrepreneurs (Yu, Zhu, Der Foo & Wiklund, 2022). Families and communities where children are raised play an important role. Today in South Africa, there are a lot of gender-based violence (GBV) cases, which most of the time affect children and women. It is very difficult for children to trust people to assist them when they are faced with challenges, even just to do door-to-door selling, which can develop their entrepreneurship skills. Due to poverty, most of the parents do not have money to pay their children for the house chores to assist them in entrepreneurship. But for children who were raised in a business environment, it is easy for them to start their own businesses because of the accessibility of resources (Drennan *et al.*, 2005).

Most child-headed families (where children are orphans or parents have abandoned them, and they take care of themselves) children are the ones who are taking the risks to be entrepreneurs. Their adversity of losing their parents and being forced to look after their siblings helps to build a vital psychological capacity, which can lead to a successful entrepreneurship (Yu *et al.*, 2022). Similarly, Geri (2013) indicates that competent entrepreneurs can detect risks arising from uncertainty and mostly they desire to be independent. Drennan *et al.* (2005) and Yu *et al.* (2022) report that difficult childhoods and family business experiences have an impact on the success of entrepreneurial attitude when an individual has grown up. According to this study, children need parents and community to develop entrepreneurial mindsets at an early age.

2.3 Entrepreneurship informal learning

Entrepreneurship teaching and learning is not expected to take place in a classroom only. Hence, parents and the community are facilitators that train children to develop their understanding of

entrepreneurship through knowledge, personal skills and attitude, as well as to instil entrepreneurship spirit to make them see challenges as opportunities not problems and take risks where others are reluctant (Paço & Palinhas, 2011). At an early age, children's brains quickly acquire and absorb different information, which can be seen in how children are good at using technology, especially cellphones. Moreover, discipline and responsibility in children requires moderate training for them to be independent (Suzanti & Maesaroh, 2017). Entrepreneurship, as a mental attitude, can create opportunity through innovative action in facing life's challenges. Hence, life skills education is important to prepare children to face their challenges without fear and come up with creative solutions to overcome them (Windiarti & Astuti, 2017).

Encouraging entrepreneurship at an early age can be seen as a play, which allows children to use their creativity. Furthermore, it is a play that creates a child's better problem-solving strategies, more curiosity, better emotional and social adaptation. Hence, entrepreneurship play is regarded as a tool that develops a healthy brain, which can lead to a richer vocabulary (Habidin *et al.*, 2016). Children can learn entrepreneurship through presentation of small cases such as, selling of small products like sweets, be paid for doing chores for parents and/or community and even visiting local businesses. Child development varies according to the individual's nature, perspective, and personality, which follow individual designs that have their specific timings. Moreover, the experiences of children are shaped from what they learn in their family, social and cultural or other environments (Paço & Palinhas, 2011). Therefore, entrepreneurship gives different individuals an opportunity to prosper (Yu *et al.*, 2022).

Giving them some activities according to their abilities and paying them also teaches them that money is not always for spending but saving. The right environment gives children an opportunity to develop their characters, self-discipline, physical, spiritual and self-reliance, where they can experience different circumstances (Suzanti & Maesaroh, 2017). Munawar, Yousaf, Ahmed, and Rehman (2023) indicate that individual's fundamental psychological requirements are met through favourable environments, which strengthen children's behaviour towards success.

Moreover, in a learning environment, children can use, create and implement innovative methods. Learning entrepreneurship at an early age enables parents to notice if a child has a sense of external or internal control, where the external control is characterised by chance, luck or fortune and internal control by hard work and focus. It is not always that children can be entrepreneurs because their parents want them to be, entrepreneurship is a decision of an individual's personal characteristics. Entrepreneurs are not forced; they act freely and creatively with the desire to act independently (Geri, 2013). Therefore, a sense of control determines the success of an entrepreneur (Geri, 2013).

An entrepreneur's success depends on a combination of skills and characteristics. Instilling an entrepreneurship mindset in young children can be frustrating to them if they are not committed because of being non-entrepreneurial (Altahat & Alsafadi, 2021). Hence, motivation from parents and community is needed to guide them to be confident, as well as encouraging them to ask for help when faced with challenges. Even though most of the parents in disadvantaged communities

do not have business experience, they can teach young children responsibility and to understand risks in entrepreneurship (Neneh, 2011). In South Africa, there is no specific entrepreneurship tradition that can be passed as a local wisdom like weaving skill which is done at Bugis Wajo due to different cultures and races (Inanna *et al.*, 2020).

Many cultures in the country are at a disadvantage because there is no knowledge development in the local range, that can be taught by community members. Schmitt-Rodermund (2004) highlights two different sources of interaction. The first one is the set of elements where children are born. The second one is circumstantial input where parents provide support, opportunities and assist children to develop an interest in entrepreneurship. Moreover, informal education influences the child's emotional intelligence, which has no time limit as it is taught in the family (Inanna *et al.*, 2020).

In conclusion, more commitment from parents and community engagement towards teaching young children about entrepreneurship can address the high rate of unemployment and encourage successful entrepreneurs when they grow. Furthermore, with both the informal and formal education that children will receive, they can face entrepreneurial challenges because of the knowledge that they will acquire. Moreover, they can take risks and be independent.

3. RESEARCH METHODOLOGY

In this study, the focus is on the role that parents and the community play in encouraging young children to be entrepreneurs. It is easy to shape the minds of young children not only to do business but also to train them to have positive attitudes and behaviours through informal education from their parents and community members. A descriptive quantitative approach was the method used in this study. As indicated by Diana, Raij, Melis, Nummenmaa, Leggio & Bonci (2017), the method describes the percentage of the model development with learning approach as the lack of detailed knowledge prohibits implementation. The researcher used a quantitative technique because, according to Omoruyi and Ntshingila (2021), it gives objective accuracy. Positivist research is important for this study as the research targets demonstrating the relationship subsisting between parents, community, informal education and entrepreneurship. The positivist approach, according to Cele (2020), is a test theory that concludes patterns found on the reality of an objective.

A convenient sampling technique is the participation of the invited subjects available to be tested (Cooper & Emory, 2009). Hence, this study used this method because the population used was available for data collection. Questionnaire (450 printed copies) were distributed during a non-probability random sampling method among parents and community members of Emfuleni local Municipality.

3.1 Research design

A quantitative research proposal was adopted in this research, where a survey questionnaire were distributed to parents and community members within Emfuleni municipality region in South Africa. The method was regarded to be appropriate for this study because data collection can be easily facilitated from large populations, where developing and administering of research questions is easier, whilst generalising the research findings (Mafini & Dlodlo, 2014).

3.2 Sampling method

Table 1: Parents and community members participated in survey.

| Parents that own businesses | Parents not owning businesses | Business community members | No business community members |
|--|-------------------------------|----------------------------|-------------------------------|
| Agree: F=27 M=25 Disagree: F=21 M=9 | F=23 M=16 F=15 M=7 | F=19 M=11 F=20 M=5 | F=21 M=6 F=16 M=3 |

Amongst the respondents, N=162 (65.85%) were females and N=84 (34.15) were males. The demographic background of the parents who have businesses in the Emfuleni region shows that they encourage children to be entrepreneurs (N=27; 10.97% females and N=25;10.16% males). Parents who do not have businesses agree to develop young minds for entrepreneurship with N=23 (9.43%) females and N=16 (6.50%) males. About N=21 (8.54%) females and N=9 (3.65%) males do not agree with grooming children to be entrepreneurs. Parents that do not own businesses disagree with the encouragement of business for young children, (females N=15; 6.09% and males N=7; 2.84%). Business females (N=19;7.27% and N=11; 4.47% males) from community agree to mentor children at an early age about business but (N=20;8.13% females and N=5; 2.03%) males do not see how that will assist to improve the economy. However, from the community who do not own businesses (N=16;6.50% females and N=3; 1.22%) males are not willing to assist children in understanding entrepreneurship at their young age, females (N=21;8.53% and males N=6; 2.43%) see the importance of developing children at young age for them to have a better understanding of entrepreneurship.

3.3 Measuring instrument

To obtain answers to the research questions, a well organised manageable questionnaire must be designed (Cele,2020). Hence, user-friendly, and non-confusing terminologies were used to encourage respondents to participate. The question was designed using five-point Likert scale questions based on respondents’ answers indicating 1=strongly agree, 2=disagree, 3=neither agree nor disagree, 4=strongly agree and 5=strongly disagree. Using the Likert scale according to Kothari (2008) makes it simple for surveys as it is easy to construct, collect and analyse data.

3.4 Data collection method

Out of 450 questionnaires distributed, 246 (55%) were used for the study, whilst 204 (45%) were eliminated because they could not be used for statistical analysis. Respondents were given the option to tick the most relevant responses from the given responses and, where necessary, an option to add other relevant responses that were not in the option was also given.

3.5 Data analysis

The aim of the research was to determine the relationship between informal learning, knowledge, skills, and encouragement of entrepreneurship by parents and community/society to young children.

3.5.1 Reliability and validity of the measurement scale

Reliability is the consistency of a measurement that provides consistent and stable results of the same object/ phenomenon. To be sufficient it must be combined with validity, and it is apprehensive with repeatability to ensure that research questions are correct through pre-test. Furthermore, it is concerned about whether each time it is applied, a measurement instrument can submit consistent results (Govuzela, 2018). To validate an instrument’s usefulness, it is essential to evaluate the reliability and validity of its measurements. Moreover, indicating adequate sufficient reliability of the sub-scales, Cronbach’s alpha values ranged between .0713 and 0.863 and its coefficient for the complete scale was 0.853. The competence of the scale in apprehending the factors investigated in this study is confirmed by the results reported in Table 2.

Validity is the quality of a data gathering instrument, which measures what it is supposed to measure and measures the right thing or asks the right questions (Govuzela, 2018). A selected sample of 65 respondents from parents and community members was used for pre-testing of the questionnaire through content and face validity instrument. Moreover, three experts in the field of entrepreneurship were given the questionnaire to review. Hence, minor corrections were made to the questionnaire to increase its validity in addressing the research questions (Mafini & Dlodlo, 2014).

In this study, Cronbach’s alpha and composite reliability were utilised to measure the reliability of the instrument.

Table 2: Reliability values for entrepreneurship knowledge, entrepreneurship skills, entrepreneurship encouragement and entrepreneur career success sub-scales.

| <i>Construct</i> | <i>N</i> | <i>Number of items</i> | <i>Cronbach’s alpha</i> |
|---------------------------------------|----------|------------------------|-------------------------|
| <i>Entrepreneurship knowledge</i> | 246 | 5 | 0.714 |
| <i>Entrepreneurship skills</i> | 246 | 4 | 0.817 |
| <i>Entrepreneurship learning</i> | 246 | 7 | 0.732 |
| <i>Entrepreneurship encouragement</i> | 246 | 5 | 0.713 |
| <i>Entrepreneurial career success</i> | 246 | 5 | 0.853 |

Overall Cronbach’s alpha for the entire scale = 0.869

Table 3: Psychometric properties of the measurement scale and mean score rankings

| Scale items | EK | ES | EL | EE | ECS |
|--|-----------|-----------|-----------|-----------|------------|
| I am willing to teach my child entrepreneurship | 0.784 | 0.028 | 0.067 | 0.141 | 0.142 |
| I give the knowledge that I have about business | 0.922 | 0.041 | 0.721 | 0.283 | 0.176 |
| Teaching children about business risks. | 0.682 | 0.871 | 0.283 | 0.365 | 0.055 |
| I encourage teaching entrepreneurship at an early age. | 0.332 | 0.421 | 0.543 | 0.267 | 0.237 |
| My relationship with children is good. | 0.865 | 0.162 | 0.188 | 0.206 | 0.187 |
| Children to be paid for chores done at home | 0.117 | 0.431 | 0.092 | -0.127 | 0.546 |
| Teaching children to save money instead of spending | 0.087 | 0.033 | 0.254 | 0.362 | 0.463 |

| Scale items | EK | ES | EL | EE | ECS |
|---|-------|-------|-------|-------|-------|
| Encourage society members to be part of teaching children | 0.266 | 0.268 | 0.300 | 0.573 | 0.156 |
| Children to be taught to take risks | 0.014 | 0.023 | 0.837 | 0.411 | 0.256 |
| I don't force children to be entrepreneurs | 0.028 | 0.204 | 0.632 | 0.266 | 0.302 |
| Children must not be discouraged by challenges | 0.278 | 0.028 | 0.081 | 0.184 | 0.471 |
| I guide and lead children in entrepreneurial activities | 0.936 | 0.988 | 0.046 | .0738 | 0.193 |

Loadings of 0.50 and more were considered significant.

EK=entrepreneurship knowledge, ES=Entrepreneurship skills, EL=Entrepreneurship learning, Entrepreneurship encouragement, ECS=Entrepreneurial career success

The Cronbach's alpha test and the composite reliability (CR) test were used as measurement instruments to measure total correlations. According to (Hair, Black Babin and Anderson, 1998: 134) factor loading more than 0.3 was the minimum threshold level, 0.4 when loaded is important, but 0.5 and greater was considered more important when loaded. Moreover, Anderson and Gerbing (1988: 414) indicate that loading factor greater than 0.5 indicates that individual item convergent validity is acceptable because more than 50% of each variance was shared with its respective construct. When data are not a specific matrix with zero correlation ($p < 0.000$) according to Bartlett's test significant, meant that variables are correlated (Mafini & Dlodlo, 2014). Hence, a factor analysis procedure could be utilised in this study. The variance of 71,6% was explained by the extracted factors where 28.4% is accounted for by the variables that are not part of this research. The rotated factor loading matrix, psychometric properties as well as mean score values are indicated in Table 3.

For calculation of AVE values, formular K^2/n (the summation of all factor loadings and then divide by the sum of items, where K =factor loading and n =the number of items), was used. The results shown in entrepreneurship knowledge, which is factor one, which accounted for 11.41% relate mainly to the extent parents and community knowledge and skills contribute to the encouragement of children learning entrepreneurship at an early age. A mean score value of 4.122 shows that knowledge was an instrument for being interested in teaching children to have an entrepreneurial career success.

The second factor, which is entrepreneurship skills, accounting for 9.67%, shows that parents and community skills, those that have businesses, transfer the business skills to young children for a better entrepreneurial career success when they grow up. A mean score value of 3.673 is an indication of skills and learning contributing to the entrepreneurial career success of children. Entrepreneurship encouragement is the third factor, which accounted for 23.15% of the variances that are loaded onto the factor relating to the willingness of parents and society members to encourage children to learn entrepreneurship at an early age, with a mean score value of 4.213. These results show a positive influence on entrepreneurial career success where respondents agree that when children learn at an early age they will grow with that knowledge. Factor four, which is

learning, accounted for 18.85% of the variance of the items that are loaded; the factor with a mean of 4.631 shows the children’s willingness to learn without being pushed by either parents or community for them to have an entrepreneurial career success.

Correlation analysis: encouragement, learning and entrepreneurial career success. The procedure of Spearman’s non-parametric correlation analysis, used to establish the possible existence of a relationship amongst the sub-scales, was applied to assess the degree to which quantitative variables are related in a sample (Maxwell & Moores, 2007). Hence, it was distinguished, upon analysis, that the values for AVE were above the minimum threshold of 0.5 (Fraering & Minor, 2006:284).

Table 4: Correlation between constructs

| No | Constructs | EK 1 | ES 2 | EL 3 | EE 4 | ECS 5 |
|----|------------|---------|---------|---------|-------|-------|
| 1 | EK1 | 1.000 | 0.263** | | | |
| 2 | ES 2 | 0.545** | 1.000 | | | |
| 3 | EL 3 | 0.634** | 0.621** | 1.000 | | |
| 4 | EE 4 | 0.362** | 0.445** | 0.371** | 1.000 | |
| 5 | ECS 5 | 0.462** | 0.512** | 0.414** | 0.626 | 1.000 |

**Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis serves to confirm the association and direction of the association between the constructs, apart from confirming discriminant validity. Ranging from $r=0.263$ to $r=0.634$ confirms that inter-factor correlations were positive and significant. There is also a positive correlation coefficient ($0.341 \leq r \leq 0.634$) between entrepreneurship encouragement and entrepreneurial career success. Moreover, an analysis of the relationship between the mediating variable, which is entrepreneurship learning and entrepreneurship career success, which is the outcome variable, has a positive significant relationship ($r=0.634$; $p<0.01$).

Table 5: Regression model 1: Entrepreneurship encouragement factors and entrepreneurial career success

| Independent variables: Entrepreneurship encouragement factors | | | Dependent variable: Entrepreneur career success | | |
|---|----------------------------------|-------|---|------------------------|----------------|
| | Standardised coefficients (Beta) | t | Sig. | Collinearity Tolerance | Statistics VIF |
| EK | 0.271 | 4.241 | 0.007 | 0.708 | 2.313 |
| ES | 0.215 | 2.136 | 0.001 | 0.471 | 1.923 |
| EL | 0.267 | 5.826 | 0.408 | 0.641 | 1.632 |
| EE | 0.269 | 5.743 | 0.021 | 0.563 | 1.726 |
| | | | | | |

The estimation of coefficients and the calculation of confidence intervals were not compromised, as no normality was violated. On normally distributed data, the procedure at its initial stage has potential to manipulate relationship and significance tests. Therefore, this result indicates that

when one construct increases, the other constructs are expected also to have a positive increase, while the reverse is true.

Table 6: Regression model 2: Entrepreneurship knowledge and successful entrepreneurship

| Independent variable: EE | | Dependent variable: ECS | | | |
|--------------------------|--|-------------------------|-------|------------------------|----------------|
| | Standardised coefficients (Beta) β | t | Sig. | Collinearity Tolerance | Statistics VIF |
| ECS | 0.336 | 5.413 | 0.001 | 0.563 | 0.713 |

4. RESULTS AND DISCUSSION

The aim of the study was to investigate entrepreneurship encouragement from parents and communities towards young children, applying their knowledge, skills and informal learning. The willingness of parents and community members to encourage children to learn entrepreneurship has received more attention than other variables. The results of this study propose that more experiences influence the perception of teaching young children about entrepreneurship. To actualise this objective, hypotheses were suggested and empirically to assure validity, reliability, and statistical significance. Parents and community members who have owned businesses may increase the understanding of self-employment to children but not entrepreneur career success. Drennan *et al.* (2005) indicate that a family business could provide encouragement for children to learn about entrepreneurship.

A positive and strong association where ($r=0.563$; $p<0.01$) was accepted which shows that more entrepreneurial knowledge increases the influence of encouraging children’s mind for successful entrepreneurship. Entrepreneurial knowledge is a statistically significant of entrepreneurship encouragement according to the results of the regression analysis because people with entrepreneurship knowledge can influence children’s behaviour towards business according to Windiarti & Astuti (2017 ($\beta=0.271$, $t=4.241$; $p<0.01$). According to the results, *H₁ is supported and accepted in this study*. This shows that the more entrepreneurship knowledge that parents and community members have, the more the chance to increase the opportunity to encourage young children about entrepreneurship. Welsh and Drăguşin (2011) highlight the importance of mentors to have knowledge about entrepreneurship whether through formal or informal teaching.

This is significant in this study for parents and society to have the necessary knowledge about business for the benefit of children. Hence, people with better knowledge will always have a way to encourage young children to consider self-employment as a career when they grow up.

Between entrepreneurship skills and entrepreneurship encouragement, a positive and moderate association was established ($r=0.471$); $p<0.01$). The entrepreneurial skills as a factor are a statistically predictor of entrepreneurship encouragement ($\beta=0.215$; $t=2.136$; $p<0.01$). *H₂ is therefore, supported and accepted in this study*. With these results it means that the skills of parents and community members increase the understanding of children on encouragement of entrepreneurship. Previous study coincides with the above findings. Binks, Starkey and Mahon

(2006) clearly state that more skills are needed for successful businesses. Mentors with more entrepreneurship skills can contribute more to entrepreneurship, which can lead to more children encouraged to be businesspeople. Therefore, skilled development is necessary for mentors both on formal (school education) and informal (at home and in society) education as it motivates parents and community members to teach entrepreneurship to children using their different business skills.

A positive and strong association was established between entrepreneurship learning and entrepreneurship encouragement ($r=0.641$; $p<0.01$). The informal entrepreneurship learning factor is a statistically predictor of entrepreneurship encouragement ($\beta=0.267$; $t=5.826$; $p<0.05$). *The suggestion of the results is that H_3 is supported and therefore is accepted in this study.* The results imply that more entrepreneurship learning is dependent on entrepreneurship encouragement. Matlay (2008) points out that entrepreneurship education is associated with students' motivation.

A positive and strong association was established between entrepreneurship encouragement and entrepreneurial career success, from the results in regression model 2 ($r=0.636$; $p<0.01$). The entrepreneurship encouragement variable emerged as a statistically predictor of entrepreneurial career success ($\beta=0.336$; $t=5.413$; $p<0.01$). *These results suggest that H_4 is supported and is therefore accepted in this study.* There is no linkage between entrepreneurship encouragement and entrepreneurial career success as represented by a zero correlation between two constructs according to the findings by Mafini and Dlodlo (2014). Therefore, based on the results from this research, entrepreneurship learning increases when both parents and community members with entrepreneurship knowledge are involved in encouraging entrepreneurship teaching towards young children.

4.1 Findings

A conceptual framework was tested through an examination between entrepreneurship encouragement and entrepreneurial career success amongst parents and community members within Emfuleni municipality area in South Africa. Entrepreneurship knowledge, entrepreneurship skills and entrepreneurship learning were identified as motivation factors. The findings confirm the existence of positive, statistically significant, and predictive associations between these factors: entrepreneurship knowledge, entrepreneurship skills entrepreneurship learning and entrepreneurship encouragement. All the proposed relationships among the research constructs were statistically supported because H_1 is supported and accepted as entrepreneurship knowledge has an impact on entrepreneurship encouragement, H_2 is supported and accepted because the more skills that people have about entrepreneurship, the more they can instil entrepreneurship mind to children, H_3 is supported and therefore is accepted because entrepreneurship learning can encourage entrepreneurship on children, except for H_4 that accepted the null hypothesis and rejected the alternative hypothesis.

The findings revealed the significance of entrepreneurship encouragement's impact on entrepreneurship knowledge, entrepreneurship skills, entrepreneurship learning and entrepreneurial career success. Based upon this research model, entrepreneurship encouragement

must be emphasised as a career or self-employment to children from an early age for them to have entrepreneurship career success when they reach adulthood.

There is still a need for parents and community members training to develop themselves through entrepreneurship government framework in entrepreneurship knowledge and entrepreneurship skills so that they can teach and encourage young children about entrepreneurship.

5. CONCLUSION

The purpose of the study was to investigate the underlying relationship between entrepreneurship encouragement and entrepreneurial career success on parents and community members towards encouraging young children at an early age about entrepreneurship in South Africa. A positive association between entrepreneurship encouragement and entrepreneurial career success was noticed, which means that the two factors either increase or decrease in parallel with each other. Furthermore, entrepreneurship encouragement appeared as a predictor of entrepreneurial career success.

REFERENCES

- Altahat, S. & Alsafadi, Y. 2021. The mediating role of creativity in the influence of the entrepreneurial mindset on corporate entrepreneurship. *International Journal of Innovation, Creativity and Change*. 15 (4) 767-783.
- Anderson, J.C., and Gerbing, D.W., 1988. Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), p.411.
- Binks, M., Starkey, K. & Mahon, C.L. 2006. Entrepreneurship education and the business school. *Technology Analysis & Strategic Management*. 18 (1) 1-18.
- Cele, S. 2020. The role of management accounting practices in the success of Small and Medium-sized enterprises in Durban. Master of accounting. Durban University of Technology.
- Cheng, Z., Guo, W., Hayward, M., Smyth, H.R. & Wang, H. 2020. Childhood adversity and propensity for entrepreneurship: A quasi-experimental study of the great Chinese Famine. George Institute for Global Health, 15th International Conference of the Western Economic Association International. *Journal of Business Venturing*. 1-63
- Christianti, M., Cholimah, N. & Suprayitno, B. 2015. Development of entrepreneurship learning model for early childhood. *Asia Pacific Journal of Multidisciplinary Research*. 3 (3) 65-70.
- Cooper, D.R. & Emory, C.W. 2009. Business research method. 5th edition. Florida: Irwin.
- Diana, M., Raij, T., Melis, M., Nummenmaa, A., Leggio, L. and Bonci, A., 2017. Rehabilitating the addicted brain with transcranial magnetic stimulation. *Nature Reviews Neuroscience*, 18(11), 685-693.
- Drennan, J., Kennedy, J. & Renfrow, P. 2005. Impact of childhood experiences on the development of entrepreneurial intentions. *Entrepreneurship and Innovation*. 231-238.

-
- Fraering, M. & Minor, M. 2006. Sense of community. An exploratory study of US consumers of financial services. *International Journal of Bank Marketing*. 24 (1) 284-306.
- Geri, S. 2013. Relationship between entrepreneurial skills and tendencies. Research on physical education students. *International Journal of Social Science*. 4 (5) 179- 185.
- Govuzela, S. 2018. The contribution of organisational agility towards business performance within small and medium scale enterprises in Gauteng. Doctoris Technologiae. Vaal University of Technology.
- Habidin, N.F., Salleh, M.I., Latip, N.A.M., Jusoh, O., Azman, N.M.A., Fuzi, N.M., & Ong, S.Y.Y. 2016. Kids entrepreneurship for learning and assessment systems (KELAS) for early childhood institution: Critical success factor analysis and decision-making systems. *International Journal of Academic Research in Business and Social Sciences*. 6 (9) 399-420.
- Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. 1989. *Multivariate data analysis: a global perspective*. 7th edition. USA: Pearson.
- Handayati, P., Wulandari, D., Soetjipto, B.E., Wibobo, A. & Narmaditya, B.S. 2020. Does entrepreneurship education promote vocational students' entrepreneurial mindset? <https://doi.org/10.1016/j.heliyon.2020.e05426>. Elsevier.
- Hutagalung, B. Ja'far Dalimunthe, D.M., Pambudi. R. Hutagalung, A.Q. & Muda, I. 2017. The effect of entrepreneurship education and family environment towards students' entrepreneurial motivation. *International Journal of Economic Research*. 14 (20) 331-345.
- Inanna, I., Rahmatullar, R., Haeruddin, N.M.I.M. & Marhahawabi, M. 2020. Silk weaving as a cultural heritage in the informal entrepreneurship education perspective. *Journal of Entrepreneurship Education*, 23 (1) 1-11.
- Jagannathan, R., Camasso, M.J., Das, B., Tosun, J. & Iyengar, S. 2017. Family, society and the individual: determinants of entrepreneurial attitudes among youth in Chennai, South India. *Journal of Global Entrepreneurship Research*. 1-22.
- Kothari, C.R. 2008. *Research methodology: methods and techniques*, (2nd ed, 109-110). New Delhi, India.
- Mafini, C. & Dlodlo, N. 2014. The relationship between extrinsic and motivation, job satisfaction and life satisfaction among employees in a public organisation. *SA Journal of Industrial Psychology/SA*. 40(1) 1-13.
- Maure, R., Neergaard, H. & Linstad, A.K. 2009. Understanding the entrepreneurial mind. *International Studies in Entrepreneurship*. 24, DOI.10071978-1-4419-0443-0_11. Springer Science.
- Matlay, H. 2008. The impact of entrepreneurship education on entrepreneurial outcome. *Journal of Small Business and Enterprise Development*. 15 (2) 382-395.
- Maxwell, J.P. & Moores, E. 2007. The development of short scale measuring aggressiveness and anger in competitive athletes. *Psychology of Sport and Exercise*. 8. 179-193.

-
- Maziriri, E.T., Nyagadza, B., Maramura, T.C. & Mapuranga, M. 2022. “Like mom and dad”: using narrative analysis to understand how couplepreneurs stimulate their kids’ entrepreneurial mindset. *Journal of Entrepreneurship in Emerging Economies*. Emerald Publishing Limited.
- Munawar, S., Yousaf, H.Q., Ahmed, M., Rehman, S. 2023. The influence of entrepreneurial education on entrepreneurial success: An empirical study in Pakistan. *The international Journal of Management Education*. Elsevier, ScienceDirect.
- Neneh, N.B. 2011. An exploratory study on entrepreneurial mindset in the small medium enterprise (SME) sector: A South African perspective on fostering small and medium enterprise (SME) success. *African Journal of Business Management*. 6 (9) 3346-3372.
- Omoruyi, O. & Ntshingila, L. 2021. Assessing purchasing technical skills as precondition for effective purchasing management in Sedibeng District Municipality, South Africa. *Journal of Contemporary Management*. 18 (2) 162-183.
- Paço, A. & Palinhas, M.J. 2011. Teaching entrepreneurship to children: a case study. *Journal of Vocational Education and Training*. 63 (4) 593-608.
- Schmitt-Rodermund, E. 2004. Pathways to successful entrepreneurship: Parenting, personality, early intrapreneurial competence and interests. *Journal of Vocational Behavior*. (65) 498-518.
- Suzanti, L. & Maesaroh, S. 2017. Entrepreneurship learning for early childhood. A case study for children aged 4-5 in TK Khalifa Ciracas Serang. *2nd International Conference on Economic Education and Entrepreneurship*. 403- 410.
- Tyas, E.H., & Naibaho, L. 2019. The urgency of entrepreneurship learning in the industrial age of 4.0. International Conference on Education, Science and Technology 2019. *Journal of Physics: Conference Series*.1-6.
- Welsh, D.H.B & DRĂGUȘIN, M. 2011. Entrepreneurship education in higher education institutions as a requirement in building excellence in business: The case of the University of North Carolina at Greensboro. *Forum Ware International Journal*. Special issue on *International Society of Commodity Science and Technology*. 1. 266- 272.
- Windiarti, D.R. & Astuti, H.P. 2017. Developing entrepreneurship activity based on local culture in early childhood. 9th International conference for Sciences Educators and Teachers (ICSET). *Advances in Social Science, Education and Humanities Research*, (118), 502-507.
- Yu, W., Zhu, F. Foo, M.D. & Wiklund, J. 2022. What does not kill you makes you stronger: Entrepreneurships’ childhood adversity, resilience, and career success. *Journal of Business Research*.151 (40-55).
-

SSIRC 2023-104**UNDERSTANDING THE IMPACT OF COVID-19 ON E-BUSINESS IN SOUTH AFRICA****M. Musaigwa**

University of Johannesburg, South Africa

V. Kalitanyi

University of Johannesburg, South Africa

ABSTRACT

The outbreak of COVID-19 has fundamentally disrupted businesses across the globe and South Africa in particular. In response to the impact of the COVID-19 pandemic, many organisations started restructuring and changing their strategies and business models. South Africa like many other countries of the world imposed COVID-19 lockdown regulations to reduce the spread of the Coronavirus. This meant that most of the businesses were either completely closed or operated online. The purpose of this study was to understand how the COVID-19 pandemic affected e-business in South Africa to establish whether the local business remains viable or not. Data were collected from documents, including peer-reviewed literature sources, to gain understanding of COVID-19 and how it affected e-business in South Africa. The inclusion criteria for the documents were based on the credibility, relevance, and quality of information, while sources with inadequate information on e-business were excluded. The results indicate that COVID-19 resulted in economic decline due to a reduction in customer consumption in South Africa. Further examination of the literature revealed that online business activities and the use of technology increased due to the lockdown since more customers turned online to obtain services while many employees resorted to working virtually. Nevertheless, this unprecedented transition from business to e-business triggered various problems for firms in South Africa and other countries. The conclusions drawn from the study have shown that COVID-19 significantly transformed how businesses operate during and post-COVID-19. Therefore, in this growing digital economy, firms are encouraged to adopt new digital technologies and related ICTs as a way of responding to the trends in both the technological and business environments.

KEYWORDS: e-business; COVID-19; e-commerce; online shopping; business.

1. INTRODUCTION

On 11 March 2020, the World Health Organisation declared COVID-19 a global pandemic. This resulted in different reactions from countries around the world to delay or reduce the spread of COVID-19. Along with many countries across the globe, South Africa imposed strict lockdown regulations on 5 March 2020. The COVID-19 pandemic swept across the globe causing catastrophic effects to the lives of people and their livelihoods. Therefore, it became necessary for countries across the globe to impose lockdowns and restrict the movement of people by confining them in their homes.

It has been reported that retailers have seen an increase in e-commerce as a platform in 2020 in South Africa (OECD, 2021). This situation was witnessed more by omnichannel retailers as their customers switched from shopping at their brick-and-mortar stores to shopping online. In addition, the increase was also witnessed in stores that are purely online such as Takealot, which is the largest online retailer in South Africa. It was also reported that Foschini Group saw an increase of 152% in online turnover between May 2020 and September 2020 (OECD, 2021).

The COVID-19 pandemic has exacerbated the increase in online platforms and innovation although there has been a gradual increase over the years (Goga, 2021). The increase has been more prevalent in the grocery retail market as the retailers began to provide App-based delivery as the customers were under restrictive lockdown regulations, and banks such as FNB have seen an increase in the use of e-commerce purchases (Goga, 2021). However, there was also a significant decline in tourism online purchases, since the tourism sector was brought to a standstill due to COVID-19 pandemic lockdowns, which saw countries closing their borders.

Digital infrastructure has been significant in accelerating e-business. The COVID-19 pandemic had a fundamental impact on the South African economy as it significantly slowed down domestic production apart from essential services (Arndt, Davies, Gabriel, Harris, Makrelov, Modise and Anderson, 2020). Moreover, the global economy was also affected, which led to a global slowdown, thus reducing investment in emerging markets and resulting in lower export demand (Jason, Bell, and Nyamwena, 2022).

As a result of the National State of Disaster declared by the government of South Africa and the hard lockdown, most of the businesses stopped operating, thus affecting the economy since the government only allowed essential services, such as healthcare, agriculture, and security. Before the COVID-19 pandemic struck, the South African economy was already in a difficult position (www.statssa.gov.za/?p=13601). In the third and fourth quarters of 2019, the nation saw two consecutive periods of negative GDP growth, which suggested that the economy had moved into a technical recession as 2020 began (Asmal and Rooney, 2021). From this background, this study answers the following questions: To what extent was e-business affected by the COVID-19 pandemic from the business perspective in South Africa? And what was the impact of COVID-19 on e-government in South Africa? The paper is structured as follows: the literature review will be discussed followed by the methodology that explains the adopted approach. This will be followed by a comprehensive discussion of findings before the conclusion of the study.

2. LITERATURE REVIEW

Defining e-business

E-business (electronic business) is a term used to define a business management method through the Internet using information technology (IT) and a set of tools (Zebari, Zeebaree, and Jacksi, 2019). E-business consists of e-society, e-learning, e-government, e-commerce, and e-enterprise to mention a few (Zebari *et al.*, 2019). These electronic businesses enable the firm processes,

comprising online services, buying, and selling products, online advertising, sharing information and more (Jacksi, 2015).

The e-business processes can be classified into the following categories: client processes (customers' requests processing), production processes (payments and administration processes, e.g., videoconferencing, sharing information) (Zebari, *et al.*, 2019). There are several types of e-business depending on the type of marketplace: government to government (G2G), citizen to government (C2G), government to citizen (G2C), business to client (B2C), client to client (C2C), client to business (C2B), business to business (B2B), intra-business (that is, organization unit to organization unit), and exchange to exchange (E2E) (Zeebaree, Adel, Jacksi, and Selamat, 2019).

Impact of COVID-19 on e-business

The COVID-19 pandemic accelerated digital transformation as companies were forced to change their operations following the lockdown, which restricted movement and caused supply disruption, despite the devastating effects it had on the economy and the business (Papadopoulos, Baltas, and Balta, 2020). Most of the large firms were able to acquire the technology to digitalise their operations in light challenges posed by the pandemic. However, small- and medium-sized companies were unprepared to cope with the fundamental impact of the pandemic (Fabeil, Pazim, and Langgat, 2020).

China was among the first countries in the world to impose strict COVID-19 restriction and it was, therefore, anticipated that the deadly coronavirus pandemic would have a severe impact on online business, particularly those that depend on Chinese products as the country plays a significant role in the manufacturing of products globally. A survey conducted in 2020 revealed that most of the products came from China and most of the industries were affected by the lockdown, which suggested that there was no import and export of the products (Meyer, 2020).

When the pandemic started, organisations allowed their workers to work from home, education services moved to virtual teaching and learning, and an increase was witnessed in the demand for job vacancies for online working arrangements (OECD, 2021). The increase in demand for digital services, such as online content and videoconferencing, led to an increase in Internet traffic up to more than 60% compared to the pre-COVID-19 period (OECD, 2020).

Countries in Southeast Asia, including Thailand, Malaysia, Taiwan, Hong Kong and Singapore, witnessed an increase in online traffic, particularly on food delivery websites (Karimi-Zarchi, Neamatzadeh, Dastgheib, Abbasi, Mirjalili, Behforouz, Ferdosian, and Bahrami, 2020). The increase in traffic and in the demand for online shopping was confirmed by a survey, which found that from March 2020 there had been a significant rise in the number of active and new customers with the passage of every day (OECD, 2020).

Nedson, Pophiwa, Kagiso, Moroane Sindie Kenny (2020) suggest that the increase in online shopping is no longer an option for most consumers, instead, it has become the norm. In addition, the spending patterns have changed and the demand for e-commerce seems to become permanent as customer loyalty has remained stable. Moreover, during the lockdown in South Africa, data on user payments indicate evidence of significant growth in online card transactions online.

Theoretical framework linked to the study.

Diffusion of innovation is a theory that researchers have largely accepted to help understand technology adoption (Roger, 1995). As Rogers (1995) suggested, technological factors, which include compatibility, relative advantage, and complexity, can influence technology adoption. Several studies that examine organisational-level adoption use the diffusion of innovation theory of Rogers (1995), which argues that innovation is based on the characteristics of technology and the perception of a user towards the system (Al-Zoubi, 2013). Diffusion of innovation presumes that the decision to adopt is taken to enhance operational efficiency (Ramdani, Kawalek and Lorenzo, 2009). Diffusion of innovation theory explains the processes by which the communication of innovation happens through channels in an extended period among members of social society (Sahin, 2006).

The main issue on the diffusion of innovation theory relates to how users adopt innovations and why there are different rates of innovation adoption among users (Sahin, 2006). The principle of diffusion of innovation is that it is essential to communicate the innovation to a small group of people to influence the large majority that are potential adopters to consider, implement and continue using the innovation (Dearing, 2009). The spread of e-business during the COVID-19 pandemic period was unprecedented. Various sectors were forced to adapt to the use of technology to do business. Business with digital infrastructure, especially retailers, increased their online sales while educational institutions shifted to online learning, including submitting assignments online. The difficult circumstances created by the COVID-19 pandemic in which many countries across the globe imposed lockdowns and various restrictions made it difficult for citizens to move around or do their ordinary day-to-day business but to adapt to using technology even for a simple task such as ordering a meal. Customers shifted to buying groceries online, especially those who were afraid of contracting the deadly Coronavirus. Moreover, employees from various organisations started working from home using technology to communicate and share information, documents, and work-related transactions online.

3. METHODOLOGY

This study adopted qualitative research in which data were collected from various documents, including organisational reports and peer-reviewed literature sources to gain an understanding of COVID-19 and how it affected e-business in South Africa. Content analysis was adopted to analyse data obtained from various documents. The study sought to have a broad view of how e-business was affected from various perspectives. Therefore, documents were explored to gain an understanding of the problem and to view the discussion of issues related to e-business from government, municipal service, business, and education. The document search was web-based, and various websites including, Google Scholar, ResearchGate, Google Search and companies' websites were used to access documents. The inclusion criteria for the documents were based on the credibility, relevance, and quality of information while sources that did not have adequate information on e-business were excluded.

4. FINDINGS AND DISCUSSION

The study focused on the following two main themes: The effect of COVID-19 on e-commerce in South Africa, and the impact of COVID-19 on e-government in South Africa. These themes are discussed in detail in the findings below.

The effect of COVID-19 on e-commerce in South Africa

Based on the reviewed documents (Deloitte, 2021), the study reveals that there has been a rapid increase in online shopping due to the COVID-19 lockdown in 2020 across the globe and in South Africa in particular. The COVID-19 pandemic fundamentally changed the business environment; however, customers have been able to overcome the online shopping challenges they used to face. In addition, it was further indicated that COVID-19 acted as a catalyst that accelerated e-commerce in South Africa and growth is expected to increase significantly as consumers are migrating from in-store shopping to online platforms. The convenience of online shopping and concerns about the continuous spread of COVID-19 became key drivers of online shopping, which was expected to continue. It is clear from this finding that COVID-19 disrupted the normal day-to-day living of citizens and forced them to find other means to get things done, and e-business became one of the essential ways of accessing services for South Africans.

The survey conducted in South Africa by Chinembiri, Kabinga, Mothobi and Gillwald (2022) indicated the following: About 6.1% of mobile phone users who had Internet access made money by operating online businesses and selling products and services as the country was under lockdown. Additionally, about 31.5% were able to send or receive money, received vouchers, or made payments, 5.8% were able to order groceries online, and 12.3% were able to order meals online during the strictest lockdown regulations. The finding suggests that people needed to access some of the services or do business online mostly using smartphones.

Another survey by Deloitte (2020) found the following: It was found that a simple activity like placing an order for a meal online heightened pre-existing digital inequality. In addition, there were biases towards urban (15.3%) over rural (5%) residents. E-commerce significantly increased in South Africa due to the COVID-19 pandemic, from 10% at the beginning of 2020 to 37%. This increase in people using e-commerce is expected to reach 44%, or 32 million users by 2024. Online retailers, such as Naspers and Takealot, reported significant business growth as well as revenue growth at the end of November 2020. The findings show that e-commerce experienced a boom during the COVID-19 pandemic, and it is further expected to continue increasing. This may suggest that people have now become used to buying online, especially those that are still fearful of the deadly pandemic since it is not completely gone.

Moreover, another survey conducted by the Boston Consulting Group in 2020 found that 44% of South Africans and 39% of Indians preferred working from home in comparison to advanced countries like the United States where figures were lower at 35%. Owing to the social distancing and lockdown regulations that encouraged people to avoid contact with each other, many people

turned to the Internet as the new method of buying goods they previously bought at brick-and-mortar shops.

The increasing use of online service was also reported in financial institutions, for instance, Malinga (2020) reported that Nedbank, one of South Africa's largest banks, recorded 100% year-on-year growth in online payments. In addition, Malinga (2020) also noted that PayFast, an online payment portal, saw a 283% increase in transactions on Black Friday sales compared to Black Friday 2019. The Mr Price Group recorded a 75% increase in online sales during the pandemic. In a different report, Arab News (2021) reported that Shoprite also extended its online grocery delivery service. The findings suggest that the lockdown forced people to use online services in a way that benefited organisations that had the digital infrastructure to serve customers.

As reported by Naidoo (2020), logistics companies also took the initiative to innovate the signing off the delivered parcels during the lockdown period as they digitalised the process; customers were no longer required to sign by pen as they introduced a digital signature to avoid human contact. This further indicates that online services were not only used by retail companies, but logistic firms as well, as they also shifted to digital service to continue serving their customers.

According to Statistics South Africa (2020), about 36.54 million internet users were recorded in January 2020 during the lockdown period, and 34.93 million were mobile internet users. The statistics suggest that many South Africans were able to access e-services using their mobile devices. Moreover, from the international perspective, W&RSETA (2021) indicates that non-food retailers such as Amazon and other established online retailers, increased online sales during the COVID-19 pandemic. The increase in using e-commerce during the pandemic was not only on food products but different customer products as indicated in the case of Amazon, which witnessed growth in online sales.

The review of documents indicates that doing business online fundamentally increased during the COVID-19 pandemic period. It can also be noted from the discussion that the increase in online shopping was higher in urban areas than in rural areas. According to Pratap, Jauhar, Daultani and Paul (2023) the COVID-19 pandemic seriously impacted the performance of many different businesses. The author further states that the COVID-19 pandemic gave a tremendous structural boost to e-commerce enterprises as it forced customers to shop online over visiting brick-and-mortar stores. In addition, global customer expectations of the digital and operational capabilities of e-commerce firms are increasing (Pratap *et al.*, 2023). The increasing use of e-commerce in the business sector is in line with the diffusion of innovation in which technology is adopted and spread if people believe that it will help them.

In the case of this study, the characteristics of diffusion of innovation as explained by Rogers (1995), such as the *relative advantage*, which relates to the superiority of technology to the one it is replacing. It can be argued that using e-commerce was perceived to be a relative advantage, which benefited the users by getting the services they need. Regarding *compatibility*, which implies that innovation is in harmony with the skills, values and work practices that are in existence, those with the knowledge, connectivity and ability were able to access services online.

In addition, not everyone is techno-savvy, therefore *complexity*, as it refers to the difficulty of understanding and using technology, implies that those who had smartphones and Internet access but with limited knowledge may have found it difficult to access the service.

The impact of COVID-19 on e-government in South Africa

The Board of Healthcare Funders (2020) indicated that the increase in the statistics of people using the Internet to 56% suggested that many South Africans were able to access e-services via their mobile devices and e-health portals during the lockdown. Therefore, the government was able to run its “Stay Home, Stay Safe” campaign and relay essential information about COVID-19 to almost all individuals with a mobile phone number, anywhere and anytime in South Africa. It was further shown that concerning the health sector, health practitioners used Telemedicine technology to provide convenient access to medicine and medical care services to South Africans during COVID-19. Moreover, in some parts of South Africa, e-Pharmacy was also used during the lockdown to dispense medicine to patients. The discussion suggests that patients were still able to get some of the services online although it does not indicate to what extent patients used e-service. The finding further shows that the use of e-service was not limited to businesses only, but public institutions as well. As indicated, the government was able to keep citizens up to date about the pandemic, and health institutions were also able to serve patients. Although statistics were not given, it can be argued that like in the business sector where an increase in e-commerce was witnessed, it is likely that public institutions also experienced a surge in the use of online services due to the lockdown.

Like many other governments across the globe, the South African government followed suit in taking advantage of e-services to serve the public in a reliable, secure, and cost-effective way (Cloete, 2012). PSA (2019) suggests that Estonia is one of the countries that the South African government is trying to imitate when it comes to e-service. It is reported that in Estonia, over 99% of the public services are available online and the citizens have 24/7 access to the digitised public services anywhere in the world (PSA, 2019).

Impact of COVID-19 on municipal e-services

Concerning the municipal service, Blom and Uwizeyimana (2020) indicate that the COVID-19 pandemic also forced municipal services to be discontinued. Nevertheless, different municipalities were able to continue providing e-services to operate effectively in different municipalities, even though only restricted operations and queries were permitted in some municipalities due to inadequate ICT infrastructure. In addition, while the municipal e-services were available for citizens through the e-municipal portal during lockdown, the challenge however was that people were subjected to long waiting times to get help. In addition, online payments were also a challenge, particularly for citizens who lacked the knowledge to perform them. It is also noted that disadvantaged citizens were not able to benefit from e-municipal services as they did not have smart devices. The discussion shows that while some of the municipal services shifted to online (e-service), it was limited to operations and transactions due to a lack of infrastructure to facilitate more online activities. Kusto and Klepacki (2022) argue that the COVID-19 pandemic forced

local government units in Poland to quickly adapt to operating online. Local governments had to take steps to reorganize their operations. However, Kusto and Klepacki (2022) found that significant factors prevented them from fully functioning, especially in areas where there was a low level of digitization and lack of sufficient hardware and software as well as staff competence. The impact of the pandemic was felt across various sectors as indicated in the findings. While there was a lack of knowledge to access the e-municipal service and a lack of infrastructure, there was an increase in the number of people using the service.

Impact of COVID-19 on e-education

The findings show that because of the increase in technology use in South Africa, the government moved fast to digitalise education by combining free electronic readers and zero-rated educational websites and apps (Fischer, Van Tonder, Gumede, and Lalla-Edward, 2021). This enabled schools to shift to an online curriculum, which allowed the return to studies via home-based schooling by mid-March 2020 (Mhlanga and Moloi, 2020). The National Department of Health also used similar apps to disseminate COVID-19 information to the public although they also used other online sources for COVID-19 information.

Notwithstanding the challenges the country was facing, most learners – from basic education to tertiary education – made use of e-learning online platforms for learning, assessment and communicating with teachers and lecturers. To a greater extent, e-education has been accessible to students since the national lockdown began in March 2020 as more resources were allocated to enable students to continue their studies.

Moreover, Blom and Uwizeyimana (2020) reported that most of the universities in South Africa provided free Gigabytes of data to all registered students, and free electronic devices such as laptops were provided to disadvantaged students. These resources enabled teaching and learning to continue online throughout the lockdown, using Zoom, Microsoft Teams, WhatsApp, emails, and Blackboard, as students were able to submit their assignments and assessments online.

Hlangani (2020) also reports that over 40 000 students visited the Vodacom e-school platform per day since the lockdown was imposed. Owing to the lockdown, traditional face-to-face learning was replaced by online learning since it was also affected by the lockdown. There was a significant increase in the use of e-learning as South African universities shifted to online learning, where students were able to submit their assignments and learn online. This situation confirms that there was indeed a significant increase in the use of electronic services, even in educational institutions.

The COVID-19 regulations made it impossible for higher education institutions worldwide to practise traditional class-based learning and pushed them to experiment with e-learning (Demuyakor, 2020). Many stakeholders were affected, including students, academics, parents and government authorities as they were concerned that the change from traditional class-based learning to e-learning would not produce the desired results (Mseleku, 2020). Yeo, Lai, Tan and Gooley (2021) argue that COVID-19 led to a fundamental shift for educational institutions as they

were forced to change from class-based learning to online, which created challenges for them to manage the new normal.

Effect of COVID-19 on e-business globally

While the study primarily concentrated on South Africa, it is important to note that the impacts of COVID-19 on e-business were felt worldwide. Available data indicate that numerous countries experienced similar effects. According to the Congressional Research Service (CRS Report, 2020), the COVID-19 pandemic had detrimental effects on economic development indicators in more than 200 countries. The report estimated a global economic growth slowdown ranging from -4.5% to 6.0% attributable to the pandemic, with a projected partial recovery of 2.5% to 5.2% expected in 2021. In June 2020, global e-commerce retail traffic surged to an unprecedented 22 billion monthly visits, driven by a soaring demand for essential commodities like clothing, food, and various retail tech products (Dumanska, Hrytsyna, Kharun and Matviets, 2021).

Despite the global impact of the COVID-19 pandemic on certain industries like hospitality and travel, other businesses, particularly those engaged in e-commerce, were expected to thrive during the lockdown period (WEF, 2020). For instance, among the top 10 Global Fortune 500 companies, Amazon, an e-commerce giant, is reported to have experienced the most significant revenue growth, with a substantial increase of 20.5% (Fortune, 2020). It was found that during the initial year of the COVID-19 pandemic, European Union member countries collectively witnessed a substantial rise in the proportion of businesses engaged in e-commerce sales. This increase stands out not only when contrasted with the preceding year but also when compared to the average of the five years leading up to the pandemic (Acheampong, 2021). These findings underscore the fact that a greater number of businesses within the European Union actively participated in online transactions during the pandemic's first year, affirming the necessity to shift numerous activities online due to lockdown measures (Acheampong, 2021).

Amid the coronavirus pandemic, Pakistan's e-commerce and digital economy experienced a substantial surge in revenue, attributed to the constraints on physical mobility among shoppers (Khan, Liaquat, Sheikh and Pirzado, 2021). In recent years, the country has been making efforts to enhance the digitalisation of its economy by promoting online businesses, aiming to bolster exports and create job opportunities for its youth (Khan et al., 2021). Pakistan's heavy reliance on Chinese products led to a decline in online business sales, primarily attributed to the impact of the COVID-19 pandemic since production in China was also affected by the strict lockdown measures. While some individuals continued to place online orders for various products, e-commerce enterprises faced challenges in sourcing items from China and other countries. This situation took a toll on industries such as automotive, machinery, and their associated sectors (Abiad, Arao, Dagli, Ferrarini, Noy, Osewe, Pagaduan, Park and Platitas, 2020). The COVID-19 pandemic also compelled many shops to close or stop their operations, causing a significant disruption for numerous businesses.

The number of online users notably surged, especially on platforms offering food delivery services and amenities. South Asian countries such as Pakistan, Malaysia, Thailand, and Singapore

experienced a significant boost in online traffic on food delivery websites (Abiad et al., 2020). Daraz.pk, Pakistan's largest online shopping platform, is owned by the international e-commerce giant Alibaba, a Chinese-based online company. It boasts an extensive catalogue of over seven million online products, hosts more than 30 000 sellers and showcases 500 brands on its platform. With the outbreak of COVID-19, approximately 300 Pakistani companies obtained licenses for the foreign export of various goods (Khan et al., 2021).

During the COVID-19 pandemic, the government of China was able to successfully apply cloud computing-based platforms to facilitate online learning and teaching for its huge university community. Despite the closure of schools, the Ministry of Education in China instructed higher education institutions to use online platforms for teaching (Han and Trimi, 2022).

Limitations of study

Firstly, it is important to recognise that the qualitative nature of this study restricts the generalisability of its findings. Qualitative research typically explores specific contexts and experiences in-depth, which can make it challenging to apply the findings to broader populations or situations. Secondly, the study's exclusive focus on South Africa limits its capacity to provide a comprehensive global perspective on the impact of COVID-19. Given that the pandemic was a worldwide phenomenon with varying effects in different regions, the findings from this study may not fully capture the diversity of experiences and responses across the globe. To address these limitations and gain a more comprehensive understanding of the impact of COVID-19, further research employing quantitative methods is warranted. Quantitative research can offer a broader and more statistically significant analysis of the phenomenon, potentially yielding findings that can be applied more universally.

5. CONCLUSION

The findings of this study underscore the profound impact of the COVID-19 pandemic on organizations across various sectors, compelling them to swiftly transition their operations and offer services through online channels. This transformative shift encompassed businesses transitioning from their traditional brick-and-mortar models to the virtual realm, while governments and educational institutions embraced online platforms for teaching and learning. In a world where offline operations became nearly untenable, organizations demonstrated remarkable adaptability by harnessing the power of online platforms. Moreover, the study illuminates how the pandemic served as a catalyst for the rapid adoption of technology across diverse industries, resulting in an unprecedented surge in e-business. This encompassed the realms of e-society, e-learning, e-government, e-commerce, and e-enterprise. Statistical evidence also highlights a substantial uptick in the utilization of e-services, not only in South Africa but on a global scale. In summation, while the COVID-19 pandemic undoubtedly wrought havoc on lives and livelihoods, it simultaneously ushered in a remarkable era of growth for e-business in South Africa and beyond. This transformative period underscores the resilience of organizations and the enduring importance of digitalization in our evolving world.

REFERENCES

- Abiad, A., Arao, M., Dagli, S., Ferrarini, B., Noy, I., Osewe, P., Pagaduan, J., Park, D. and Platitas, R., 2020. The economic impact of the COVID-19 outbreak on developing Asia. <https://doi.org/10.22617/BRF200096>
- Acheampong, T.Y., 2021. Impact of COVID-19 on e-Commerce in the European Union. *ENTRENOVA-Enterprise Research Innovation*, 7(1), pp. 86-95.
- Al-Zoubi, M. I. (2013). Predicting EBusiness Adoption through Integrating the Constructs of the Rogers's Diffusion of Innovation Theory Combined with Technology-Organization-Environment Model. *International Journal of Advanced Computer Research*, 3(4), 63.
- Arab News, (2021). *South Africa retail industry feels pain from coronavirus pandemic*. [Online] Available at: <https://www.arabnews.com/node/1723621/business-economy> [Accessed 19 April 2023].
- Arndt, C., Davies, R., Gabriel, S., Harris, L., Makrelov, K., Modise, B., ... & Anderson, L. (2020). Impact of COVID-19 on the South African economy. *Southern Africa-Towards Inclusive Economic Development Working Paper*, 111.
- Asmal, Z. and Rooney, C. (2021). *The impact of COVID-19 on industries without smokestacks in South Africa*. <https://www.21.07.27-South-Africa-COVID-Update.pdf> (brookings.edu) [Accessed: 20 April 2023].
- Blom, P. P., & Uwizeyimana, D. E. (2020). Assessing the effectiveness of e-government and e-governance in South Africa: During national lockdown 2020. *Research in World Economy*, 11(5), 208-219. Board of Healthcare Funders Annual Report.
- Chinembiri, T., Kabinga, M., Mothobi, O. and Gillwald, A. (2022). *Intersectional inequality inhibits digital substitution aimed at mitigating COVID-19 effects in South Africa*. Retrieved on 25 April 2023. <https://researchictafrica.net/wp/wp-content/uploads/2022/04/Intersectional-inequality-inhibits-digital-substitution-aimed-at-mitigating-COVID-19-effects-in-South-Africa.pdf>
- Cloete, F. (2012). E-government lessons from South Africa 2001-2011: institutions, state of progress and measurement: Section II: Country perspectives on e-government emergence. *The African Journal of Information and Communication*, 2012(12), 128-142.
- Dearing, J. W. (2009). Applying diffusion of innovation theory to intervention development. *Research on Social Work Practice*, 19(5), 503-518.
- Deloitte (2020). *How COVID-19 has affected South African*. [Online] Available at: https://www2.deloitte.com/content/dam/Deloitte/za/Documents/za_Deloitte_BrandsEye_Consume_r-Sentiment-report_May%202020.pdf [Accessed 15 April 2023].
- Demuyakor, J. (2020). Coronavirus (COVID-19) and online learning in higher institutions of education: A survey of the perceptions of Ghanaian international students in China. *Online Journal of Communication and Media Technologies*, 10(3), e202018.
- Dumanska, I., Hrytsyna, L., Kharun, O. & Matviets, O., 2021. E-commerce and M-commerce as Global Trends of International Trade Caused by the COVID-19 Pandemic.

-
- Fabeil, N. F., Pazim, K. H., & Langgat, J. (2020). The impact of COVID-19 pandemic crisis on micro-enterprises: Entrepreneurs' perspective on business continuity and recovery strategy. *Journal of Economics and Business*, 3(2).
- Fischer, A. E., Van Tonder, T., Gumede, S. B., & Lalla-Edward, S. T. (2021). Changes in perceptions and use of mobile technology and health communication in South Africa during the COVID-19 lockdown: cross-sectional survey study. *JMIR Formative Research*, 5(5), e25273.
- Fortune 2020. Global 500 Companies 2020, retrieved from: <https://fortune.com/global500/> (13 September 2023)
- Goga, S. 2021. E-commerce in a post? COVID-19 era: Building on industry gains. *The Centre for Competition, Regulation and Economic Development CCRED*. Retrieved on 20 April 2023.
https://static1.squarespace.com/static/52246331e4b0a46e5f1b8ce5/t/61555b2a3939377fe234f11b/1632983853423/IDTT_4_PB_ecommerce_in_a_post_COVID-19_era_202109_.pdf.
- Han, H. & Trimi, S., (2022) January. Cloud computing-based higher education platforms during the COVID-19 pandemic. In *Proceedings of the 2022 13th International Conference on E-Education, E-Business, E-Management, and E-Learning* (pp. 83-89).
- Hlangani, A. (2020). *Online learning proves crucial during COVID19 lockdown as Vodacom e-school registration spike dramatically*. Parent24. Retrieved 20 April 2023, from <https://www.parent24.com/Learn/Learning-difficulties/online-learning-proves-crucial-during-COVID-19-lockdown-as-vodacom-e-school-registrations-spike-dramatically-20200414>
<https://fortune.com/global500/> [Retrieved 13 September 2023]
- Jackson, J.K., Weiss, M.A., Schwarzenberg, A.B., Nelson, R.M., Sutter, K.M. & Sutherland, M.D., (2020). Global economic effects of COVID-19. Congressional Research Service Report. Retrieved from <https://apps.dtic.mil/sti/pdfs/AD1152929.pdf> [Retrieved 13 September 2023].
- Jason, A. Bell, F. and Nyamwena, J. (2022). Implications of COVID-19 on Digital Transformation in South Africa. *Centre for Competition, Regulation and Economic Development CCRED-IDTT Working Paper*.
- Karimi-Zarchi, M., Neamatzadeh, H., Dastgheib, S. A., Abbasi, H., Mirjalili, S. R., Behforouz, A., ... & Bahrami, R. (2020). Vertical transmission of coronavirus disease 19 (COVID-19) from infected pregnant mothers to neonates: a review. *Fetal and Pediatric Pathology*, 39(3), 246-250.
- Khan, A., Liaquat, S., Sheikh, J. and Pirzado, A.A., (2021). The Impact of Corona Virus (COVID-19) on E-Business in Pakistan. *Journal of Contemporary Issues in Business and Government* | Vol, 27(3), 83.
- Kusto, B., & Klepacki, B. (2022). E-services in municipal offices during the COVID-19 pandemic COVID-19. *Journal of Modern Science*, 2(49), 621.
-

-
- Malinga, S. (2020). E-commerce skyrockets, physical retail plummets during Black Friday. IT Web, 1 December. Available: <https://www.itweb.co.za/content/VgZey7Jo9OmMdjX9> [Accessed 24 April 2023].
- Meyer, S. (2020). Understanding the COVID-19 effect on online shopping behavior. <https://www.cbcommerce.eu/blog/2020/04/01/understanding-the-COVID-19-effect-on-online-shopping-behavior/> Accessed: 20 April 2023.
- Mhlanga, D., & Moloi, T. (2020). COVID-19 and the digital transformation of education: What are we learning on 4IR in South Africa?. *Education Sciences*, 10(7), 180.
- Mseleku, Z. (2020). A literature review of E-learning and E-teaching in the era of COVID-19 pandemic.
- Naidoo, S. (2020). COVID-19's impact on logistics creating ripple effects in other industries. IT Web, 28 August. Available: <https://www.itweb.co.za/content/JN1gPvOYPA2MjL6m> (Accessed 23 April 2023).
- Pophiwa, N. Moroane, Kenny, S (2020). How COVID-19 is affecting consumers in South Africa: Challenges, behaviour shifts and policy responses. *The National Consumer Commission*.
- OECD (2020). E-commerce in the time of COVID-19 https://read.oecd-ilibrary.org/view/?ref=137_137212-t0fjgnerdb&title=E-commerce-in-the-time-of-COVID-19 [Accessed 20 April 2023].
- OECD (2021). An assessment of the impact of COVID-19 on job and skills demand using online job vacancy data. OECD. <https://www.oecd.org/coronavirus/policy-responses/anassessment-of-the-impact-of-COVID-19-on-job-and-skills-demand-using-onlinejob-vacancy-data-20fff09e/>
- Papadopoulos, T., Baltas, K. N., & Balta, M. E. (2020). The use of digital technologies by small and medium enterprises during COVID-19: Implications for theory and practice. *International Journal of Information Management*, 55, 102192.
- Pratap, S., Jauhar, S. K., Daultani, Y., & Paul, S. K. (2023). Benchmarking sustainable E-commerce enterprises based on evolving customer expectations amidst COVID-19 pandemic. *Business Strategy and the Environment*, 32(1), 736-752.
- PSA. (2019). The Era of Fourth Industrial Revolution: Challenges and Opportunities for the Public Service. Retrieved 18 April 2023, from https://www.psa.co.za/docs/default-source/psa-documents/psa-opinion/psa_4th-industrial-revolution-on-publicservants.pdf?sfvrsn=7ad22450_3
- Ramdani, B., Kawalek, P., & Lorenzo, O. (2009). Predicting SMEs' adoption of enterprise systems. *Journal of Enterprise Information Management*.
- Roger, E. M. (1995). *Diffusion of Innovations*, Fourth edition, New York: Free Press.
- Sahin, I. (2006). Detailed review of Rogers' diffusion of innovations theory and educational technology-related studies based on Rogers' theory. *Turkish Online Journal of Educational Technology-TOJET*, 5(2), 14-23.
- Statistics South Africa (2020). *Digital Population as Of January 2020. Digital Population in South Africa as of January 2020*. Retrieved 22 April 2023, from <https://www.statista.com/statistics/685134/south-africa-digital-population/>
-

-
- Steep slump in GDP as COVID-19 takes its toll on the economy: Statistics South Africa (statssa.gov.za) [Retrieved 26 April 2023] <https://www.statssa.gov.za/?p=13601>
- Strack, R., Kovacs-Ondrejckovic, O., Baier, J., Antebi, P., Kavanagh, K., & Gobernado, A. L. (2021). Decoding global ways of working. Accessed 25 April 2023 from <https://www.bcg.com/publications/2021/advantages-of-remote-work-flexibility>.
- W&RSETA (2021). The economic and social impact of COVID-19 on the wholesale and retail sector. <https://www.wrseta.org.za/downloads/2020-21/The%20Economic%20And%20Social%20Impact%20Of%20COVID-19%20On%20The%20Wholesale%20And%20Retail%20Sector.pdf>. Accessed 27 April 2023.
- WEF (2020). Accelerating Digital Inclusion in the New Normal, World Economic Forum, Geneva. Retrieved from https://www3.weforum.org/docs/WEF_Accelerating_Digital_Inclusion_in_the_New_Normal_Report_2020.pdf Date retrieved 23 September 2023.
- Yeo, S. C., Lai, C. K., Tan, J., & Gooley, J. J. (2021). A targeted e-learning approach for keeping universities open during the COVID-19 pandemic while reducing student physical interactions. *PLoS One*, 16(4), e0249839.
- Zebari, R. R., Zeebaree, S. R., Jacksi, K., & Shukur, H. M. (2019). E-business requirements for flexibility and implementation enterprise system: A review. *International Journal of Scientific & Technology Research*, 8(11), 655-660.
- Zeebaree, A. Z. S. R., Adel, A. Z., Jacksi, K., & Selamat, A. (2019). Designing an ontology of E-learning system for duhok polytechnic university using protégé OWL tool. *Journal of Advanced Research Dynamical Control Systems*, 11, 24-37.

SSIRC 2023-105**THE APPLICATION OF THE RATIONAL CHOICE THEORY ON THE FINANCIAL EXPLOITATION OF ELDERLY PEOPLE IN MANDLHAKAZI VILLAGE, LIMPOPO PROVINCE****A.T. Rikhotso**

University of Limpopo, South Africa

O.R. Chabalala

University of Limpopo, South Africa

ABSTRACT

Currently, the elderly people in most societies are suffering from financial exploitation. The elders become the accessible targets of the malicious conducts, and the perpetrators are usually well-known people who apply logic when they intend to commit the transgressions and they often predict any possible circumstance or outcomes of their action before finalising their decisions. The Rational Choice Theory (RCT) explores how human beings make decisions and weigh possible gains and possible downfalls before committing crime. This paper explored in-depth information and knowledge through the application of the RCT on the financial exploitation of the elderly people at Mandlhakazi Village in the Limpopo Province. This study adopted a qualitative research approach which was guided by the exploratory research design. Face-to-face interviews were conducted, and data was collected from 20 elderly people that were aged 60 years and above from Mandlhakazi Village. To easily locate the targeted participants, after collecting the data from the first participants, the researcher asked them for references to more elderly people (snowballing). The findings of this study reveal that the major causes of the financial exploitation of the elderly people are the socio-economic issues, the ineffectiveness of the Criminal Justice System (CJS), as well as the lack of community awareness and effective strategies for combating crime. The results also signposted that the perpetrators of the financial exploitation of the elderly people foretell the opportunity to choose among the alternative options, as the rational actors who diligently analyse their choices and make decisions based on the risks and the benefits. The study recommends that the local law enforcement agencies must introduce by-laws that will strictly look at the financial exploitation of the old-age people.

KEYWORDS: Rational Choice Theory, financial exploitation, elderly people**1. INTRODUCTION**

The financial exploitation against elderly people is one of the criminal activities that are premeditated by the perpetrators. This social phenomenon is a contentious issue that will persist in the future as long as the individuals have preferences among the available alternatives, and they choose their preferred option (Jackson & Hafemeister, 2011). The efforts to combat and eliminate this financial exploitation of elderly people remain within the structures that are intended to fight crime (Naimark, 2001). This study supports the determined hypothesis of the Rational Choice Theory (RCT) that most thugs, robbers, thieves, muggers, and all kinds of criminals who target

and victimise elderly people are rational thinkers (Jackson, 2015). They diligently analyse their choices and decide based on the risks and the benefits of their conducts (Cohen & Felson, 1979). In this sense, the perpetrators know exactly what they are doing, and therefore, they have the intention to commit crime from the onset (Cohen, & Felson, 1979).

Moreover, Clark (1996) emphasizes that accountability determines why people decide to do what they do as it is not easy to understand why some people commit crime while others decide not to commit crime even when they are in a similar situation. Questions such as: “Do people even think about the consequences?”; “Why do other people still commit crime regardless of the circumstances?” and “Why do other people not commit crime no matter how desperate they are?”. The reasons for committing crime include but are not limited to factors such as anger, jealousy, greed, pride, and revenge. The individuals choose to commit crime and they carefully analyse how to do it. In this regard, the criminologists came up with the reasoning strategies stating that any kind of behaviour that an individual exhibits has an undelaying factor that can be proven or supported by using the application of the theories (Cohen & Felson, 1979).

Most societies are suffering from the financial exploitation of elderly people; and this social phenomenon has become one of the common problems affecting older people (Choi, 1999). The elderly people become targets of the perpetrators who are rational thinkers, who view them as a means of economic gains (Bonnie & Wallace, 2003; Amadae, 2004; Payne & Strasser, 2012). This social malicious act against the aged people is recognised as a global social problem that is experienced by the aged population (Sebastian & Sekher, 2010; Deka & Patir, 2018; Curcio et al., 2019). This study explored this phenomenon by applying the RCT to determine the way the perpetrators willingly choose to carry out this malicious crime against the old people.

Through critical reasoning, most financial perpetrators are aware that the elderly people often find it hard to perform certain activities independently as they get older, which requires them to seek help from others who may exploit them financially. Inevitably, Tueth (2000) stresses that the perpetrators are mostly people who are well known to the victims, and they have gained their trust and confidence.

2. LITERATURE REVIEW

2.1. The application of the Rational Choice Theory on the financial exploitation of the elderly people

The financial exploitations are usually committed by the individuals in positions of trust, and they are rational actors who target vulnerable elders. The elderly people are among the most easily accessible targets (Kieffer & Mottola, 2016), because they are at or near the peak of asset accumulation. The perpetrators assume that cognitive impairment and isolating life events such as retirement, widowhood, and disability make the elderly more susceptible (Lee & Soberon-Ferrer, 1997). Nonetheless, the perpetrators who prey on the elders may masquerade as care providers or as other professionals to get access to the older targets.

The United States Government Accountability Office (2012) defines financial exploitation as, “the illegal, unauthorized, or improper use of an older individual’s resources by a caregiver or other person in a trusting relationship, for the benefit of someone other than the older individual”. The

perpetrator may rationalise taking the elder's money or property as compensation for providing care or they may feel entitled to the elder's assets by virtue of being a relative (Hall et al., 2016). The issues such as mental illness or substance abuse can also contribute to the financial dependence on an older family member (Conrad et al., 2016; Pillemer et al., 2016).

Cohen and Felson (1979) through the other theory known as the Routine Activity Theory argue that the criminal acts require the convergence of three factors: (a) A motivated offender, (b) A suitable target, and (c) The absence of capable guardians. The theory highlights the demographic characteristics of the victims and the perpetrators, such as age as well as the gender, and it also examines the day-to-day behaviours, activities, and the situations for the motivated offenders to meet the susceptible targets (Pratt et al., 2010).

2.2. Theoretical framework

The RCT was applied on studying the financial exploitation of the elderly people at Mandlhakazi Village in the Nwamitwa area. This theory was deemed as suitable for analysing the perpetrators' determination to commit a felon. The researchers applied the RCT to understand why people do what they do. It was utilised to model human decision making, especially in the context of microeconomics, where it helps the economists to better understand the behaviour of a society in terms of the individual actions as explained through rationality, in which the choices are consistent because they are made according to personal preference (Wittek et al., 2001; Gul, 2009).

2.2.1. Elements and structure of the Rational Choice Theory

In the RCT, the individuals are said to be rational if their preferences are complete that is, if they reflect a relationship of superiority, inferiority, or indifference among all pairs of choices and if they are logically planned, they do not exhibit any cyclic inconsistencies. Furthermore, for the choices in which the probabilities of outcomes are either risky, super uncomfortable, dangerous or uncertain, the rational agents exhibit consistencies among their choices much as one would expect from an astute gambler.

According to the studies by Cornish and Clark (1987), as well as by Andresen (2010), the consistency relations among the preference outcomes are stated in mathematical axioms. A rational agent is one whose choices reflect internal consistency as demanded by the axioms of rational choice. The RCT holds that the agents' preference ranks over all the possible end states (Acheson, 2002). Therefore, this study inferred back from the observed behaviour to reconstruct the preference hierarchy that is thought to regulate a rational agent's decisions in this research.

The RCT is a fundamental element theory which provides a framework for analysing the individuals' mutually interdependent interactions. In this case, the individuals are defined by their preferences over the outcomes and the set of possible actions available to each. As its name suggests, the RCT represents a formal study of social institutions with set rules that relate the agents' actions to the outcomes. A strategy is the exhaustive plan that everyone will implement, or the complete set of instructions another could implement on an agent's behalf, that best fits the individual preferences in view of the specific structural contingencies of the plan (Bachman, 2013).

3. METHODOLOGY

3.1 Research design

Face-to-face interviews were conducted with 20 participants above 60 years of age where data reached the saturation point on Participants 18, 19 and 20, when new information was no longer coming up. The interviews aided the researcher to get the in-depth experiences of the elderly people on the crimes committed against them through the application of the RCT which highlights that the agents are like-minded rational opponents who are aware of each other's preferences and the strategies theory. Semi-structured questions facilitated by the researchers were also asked to abet the data collection process. According to Burns and Grover (2003), qualitative studies attempt to uncover the human behaviour's deeper meaning, experiences and significance. In this case, the researcher was interested in gaining an understanding of the elderly people's experiences towards financial exploitation. Exploratory design enables the researchers to gain new insights, to discover new ideas and to increase the knowledge about the people's social experiences (Creswell, 2013; Miles et al., 2013).

3.2 Sampling method

Snowball sampling was used to select the participants from the Mandlhakazi Village, which is in the N'wamitwa Area, which is 32 kilometres away from Tzaneen in the Limpopo Province. Snowball sampling falls within the category of non-probability sampling. According to Polit and Hungler (2004); Laher and Botha (2012); as well as Waller et al. (2016), the snowball sampling technique is beneficial in the studies where the potential subjects are hard to locate. Snowball sampling enabled the researcher to locate the possible participants through referrals by the other participants. The researcher conducted door-to-door visits to find the first few participants amongst the elderly people of Mandlhakazi Village, in the N'wamitwa area of the Limpopo Province. After collecting data from the first participants, the researcher asked them for references to more elderly people; until the data reached the saturation point (Bless et al., 2013).

3.3 Data collection method

Ethical clearance was sought from the Turfloop Research Ethics Committee (TREC) of the University of Limpopo before the data was collected. The research ethics were taken into consideration to prevent the violation of the participants' rights to privacy and dignity. In this case, the reason for conducting this study and the participation required from the participants was explained. The participants were informed about their rights to refuse to participate if they were not willing to participate or if they decided not to continue with the interview after its commencement. Confidentiality and the anonymity of the responses have been honoured. Emotional and psychological harm has been avoided. The researchers endeavoured not to cause any emotional harm to the participants by allowing them to respond without any means of personal interrogation.

An interview schedule was utilised to collect data from the elderly participants that were selected from the Mandlhakazi Village. Face-to-face interviews were conducted to collect data that was analysed through the Thematic Content Analysis (TCA). The research aided the semi-structured research questions to collect data as the study was guided by an exploratory research design to explore the RCT to understand the financial exploitation of the elderly people including the forms, the causes and the negative outcomes of the financial exploitation of the elderly. A semi-structured

interview is an exploratory interview that is used most often in the social sciences for qualitative research purposes or to gather clinical data (Saldana, 2013). While it generally follows a guide or protocol that is devised prior to the interview and it is focused on a core topic to provide a general structure, the semi-structured interview also allows for discovery, with space to follow topical trajectories as the conversation unfolds in a qualitative study (Creswell, 2007; Galletta, 2013; Saldana, 2013).

3.5 Data analysis

The TCA was applied to analyse the collected data. According to Braun and Clarke (2006) the thematic analysis is an independent qualitative descriptive approach that is defined as a method for identifying, analysing, and reporting the themes contained in data. Neuendorf (2018) further states that the TCA is used to examine the description materials from the life stories. The findings of the study established that people choose to commit crime because the individuals have preferences among the available alternatives that allow them to choose their preferred option (Clark, 1996).

The perpetrator's rational decision remained a matter of curiosity to the researchers; most of the interviewed pensioners are subjected to a monthly social grant from the government. The social grant becomes their living allowance, and it can only cover some of their living expenditures. Yet, this allowance is still targeted by the perpetrators who make a calculated choice on whom to target before approaching the victim (Clark, 1996), who in terms of this study, is an elderly person. It was concluded that receiving the monthly allowances also underlines the factors that contribute to why the pensioners are suitable targets.

4. RESULTS AND DISCUSSION

This section presents and discusses the results of the study of the application of the RCT on the financial exploitation of the elderly people in the Mandlhakazi Village of the Limpopo Province. The results show that the elderly people are exposed to financial exploitation. The perpetrators of this crime weigh their gains over their losses by choosing to victimise the elderly people. Financial exploitation brings much insecurity to the elders, which has negative consequences on their social and psychological well-being. This can be very challenging in their lives as it brings about problems such as depression, and heart attacks (Mishra et al., 2016).

Cohen and Felson (1979) used the RCT to explain why people choose to engage in anti-social conducts. Most of the participants indicated that the perpetrators are rational thinkers, and they can be held accountable for their actions. The participants stated that the perpetrators take advantage of their potential victims because they know that they can easily get away with their anti-social conducts. The researchers observed that the participants from the Mandlhakazi Village had different financial problems within their family. Most of the participants believed that the family members are mostly likely to exploit them financially. Most families use the elderly people's pension fund without their consent as they borrow money from the elderly and never pay them back.

Mishra et al. (2016) found that the chances of financial exploitation increase because the elderly people depend on the others for their care. The current study found that some participants live alone while the others live in nuclear families. Those who live by themselves and those who live in nuclear families were financially exploited. This is like the findings by Sebastian and Sekher (2010) in India and by Curcio et al. (2019) in Colombia.

Theme 1: Criminal activities against the elderly people based on purposeful decisions.

Regarding the RCT and the participants' responses, the choices to engage in criminal activities are based on purposeful decisions where the perpetrator believes that the potential benefits outweigh the risks (Cohen & Felson, 1979). Based on the information gathered from the selected participants, there were several challenges that were cited, and they are discussed in this section.

“People who commit crime against elders take advantage of the situation and can be irrational. I have 8 grandchildren and all of them are adolescents. They misuse funds and steal from me whenever they get the chance to do so. I think they are aware of the circumstance, yet they choose crime, sometimes we leave without essential resources. But still they can steal the last money in the house that is supposed to be used to buy food to sustain the family. My grandchildren are not reasonable” (old woman aged 91, P8).

“Perpetrators can do anything to get what they want without caring of the damage it brings to their victims. To them, crime is just a way of getting instant cash without even bothering themselves of what will occur or the risk that will follow. They only think about what they want and how to get it. Perpetrators are rational actors who decided to take chances and carry out crime regardless of the circumstances” (old man aged 89, P12).

“Offenders think before taking actions and choose to commit crime. As such, individuals committing crime are rational thinkers who have considered the risk and benefits of their action before putting it to reality or practical” (old woman aged 79, P1).

“I agree that people committing crime choose between right and wrong. As such, people who engaged in the financial exploitation of elderly people had various choices but chose to commit crime against elderly people because they had foreseen gains and benefits” (old woman aged 79, P2).

Theme 2: Factors contributing to financial exploitation.

Bachman (2013) as well as Sebastian and Sekher (2010) indicate that there are several factors that are making the elderly people susceptible to financial exploitation. In addition, the conditions such as disability, forgetfulness or other cognitive impairments make them targets for financial exploitation because they pose minimal risk to an offender being punished; more especially because they are less likely to act against the abuser, particularly when the family members are the perpetrators (Bristowe & Collins, 1998; Morgan & Mason, 2014). It can be argued that these are some of the considerations that the perpetrators take into consideration when they make a

calculated choice to target the elderly people. An elderly person indicated that forgetfulness makes her husband prone to being exploited:

“Due to aging, my husband is forgetful. He was robbed at a local hardware when buying a slasher as he forgot to take it after paying. When he went back, he was not given the slasher or his money back as he had no proof of the purchase. The salesperson even denied having received money from him” (old woman aged 79, P1).

Mandlhakazi Village’s population consists of both young and old people. Mostly the female elders are the ones that are supporting their families with their social grant money. Most of the young people are unemployed and they depend on their grandmothers to provide for them. Being a woman seems to increase the economic exploitation among the elderly. This is in line with the other studies such as that by Tueth (2000).

Theme 3: The impact of the financial exploitation against the elderly people

A study by Bachman (2013) confirms the rise in the financial exploitation that causes anxiety in many communities. Meanwhile, Jackson (2015) found that losing the fortune of one’s lifelong labour can cause irreparable mental distress and anguish, which may either torture an elderly person to death or it may result in a stroke. Either way, financial exploitation can cause unbearable sorrow, emotional disturbance, distress, depression, and suffering that can compromise the wellbeing of an elder person, as they may take a very long time to recover from the inflicted trepidations. The participants concur that the perpetrators are rational actors as they weigh the benefit before committing crime.

“I am afraid of gangsters of this village; they go around targeting elderly people, threatening them and demand money. They are greedy and very dangerous, when they are hungry and desperate for money, they use violence to attack their victims just to get what they want, I am living in fear” (old woman aged 74, P10).

Theme 4: Perceptions of the elderly people on financial exploitation

The financial exploitation against the elderly unnecessarily increases their worries which further exacerbate the chances of contracting diseases such as high blood pressure, and other heart-related diseases because of depression and attendant frustrations (Mishra et al., 2016). The participants highlighted that there are negative consequences of financial exploitation. Most participants think that financial exploitation has negative impacts on the wellbeing of the elderly, as the environment is not safe and conducive for the elderly people’s wellness. Some participants shared the following:

“The fear of becoming a victim keeps persisting. I am forever panicking when doing things. I am afraid that perpetrators are everywhere ready to attack their targets. I do not know who to trust anymore. I feel so intimidated even by my own children. I fear that my money can be over-spent on unnecessary things and that I will suffer a lot when situations of emergency arise because I will not be secured financially to resolve the situation” (old woman aged 86, P9).

“Financial exploitation brings a feeling of exclusion. It feels like I am not a member of the community. Instead of being treated with respect, love and fairness as seniors in the community, we are treated as targets of maltreatments by our own fellow residents who are the people who are supposed to protect us and fight for our safety, security, happiness and harmony” (old man aged 89, **P12**).

“I feel rejected by citizens. There are families who neglect their elders, mistreat them, abandon them, and treat them with cruelty by consistently exploiting them economically. This is why most elderly people feel so neglected, and lose hope about life, have little to no enthusiasm to go on with life and face it with positive attitudes” (old woman aged 85, **P13**).

Theme 5: The intervention and prevention strategies against the financial exploitation of the elderly people

The researchers argue that there are refining programmes that are aimed at creating conditions in which the opportunities and the motivation for crime will be reduced, including the consolidation of the law, and transforming the capacity of the Criminal Justice System (CJS) to deal with crime which will then downgrade the financial exploitation against the elderly people. The prevention of crimes against the elderly population should be a concerted effort among the various stakeholders including but not limited to, the society, the CJS, the Department of Social Development, the Department of Health, the ward councillors, the civic community, the community leaders and the pastors.

“Reporting and successful punishment of perpetrators of economic crimes against elderly people will make potential offenders procrastinate plotting these criminal activities. When the community respond effectively by reporting criminal activities to the police, and when courts give appropriate punishment to the perpetrators” (Old man aged 87, **P18**).

“Proper sentencing can be deployed as a way of preventing crime. Sentences must be given in such a way that the offender will always hesitate to recommit crime. This will also prevent financial exploitation of elderly people and recidivism” (old woman aged 79, **P15**).

5. CONCLUSION

The RCT demonstrated that because the offenders behave in a rational manner, it is undemanding to predict their actions, as well as to prevent further crime, and to reduce the crime hot spot activity. This is to say that the rational choice relates to environmental criminology in terms of the interplay between individual reasoning and the environmental cues as well as the situational crime prevention that will manipulate the elderly people’s condition such as the ability to defend themselves. The researchers determined that by resolving the socio-economic issues that include but are not limited to drug abuse, gang related activities, improper amusement facilities, unemployment, and the young offenders, they could reduce not only this financial exploitation of the elderly; but they could also reduce the other crimes that were committed against them.

The punishment must be harsh on all those who commit the financial exploitation against the elderly people, as the RCT affirmed that the perpetrators are rational actors. The researchers also argue that the perpetrators use rational calculations to make rational choices and to achieve the outcomes that are aligned with their objectives. As such, the CJS must ensure that the law enforcement that is intended to deal with this kind of crime is strict enough to reprimand this type of behaviour.

REFERENCES

- Acheson, J. (2002). Rational choice, culture change, and fisheries management in the Gulf of Maine. *Research in Economic Anthropology*, 21, 133–159.
- Amadae, S. M. (2004). *Rationalizing Capitalist Democracy: The Cold War Origins of Rational Choice Liberalism*. University of Chicago Press.
- Bachman, R. (2013). *Crimes against the elderly on the rise*. Criminal Justice: Bureau of Justice Statistics (BJS). <http://www.bjs.gov/index.cfm?ty=pbdetail&iid>.
- Bless, C., Higson-Smith, C. & Sithole, S.L. (2013). *Fundamentals of Social Research Methods: An African Perspective* (5th ed.). Cape Town: Juta & Company Ltd.
- Bonnie, R., and Wallace, R. (2003). *Elder mistreatment: abuse, neglect, and exploitation in an aging America*. National Research Council (U.S.). Washington: National Academies Press.
- Braun & Clarke (2006). *Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning*. The SAGE Publications
- Bristowe, E., and Collins, J.B. (1998). Family mediated abuse of noninstitutionalized frail elderly men and women living in British Columbia. *Journal of Elder Abuse and Neglect*, 1(1), 45–64.
- Burns, N., and Grover, S. K. (2003). *The practice of nursing research: Guide to the critical reading of research*. ST Louise: Saunders Elsevier.
- Choi, N. G., Kulick, D. B., and Mayer, J. (1999). Financial exploitation of elders: Analysis of risk factors based on county adult protective services data. *Journal of Elder Abuse & Neglect*, 10, 39–62. doi:10.1300/J084v10n03_03.
- Clark, R. V. (1996). *Introduction to the reasoning criminal* (1st ed). New York: Spring.
- Cohen, L. E., and Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review*, 52, 170–183.
- Conrad, K. J., Liu, P. J. and Iris, M. (2016). Examining the role of substance abuse in elder mistreatment results from mistreatment investigations. *Journal of Interpersonal Violence*. doi:10.1177/0886260516640782.
- Cornish, R. & Clarke, V (1987). *Understanding Crime Displacement: An Application Of Rational Choice Theory*. Rutgers University. <https://doi.org/10.1111/j.1745-9125.1987.tb00826.x>
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks: Sage.
- Creswell, J.W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed). Los Angeles, London: SAGE Publications.

-
- Curcio, C., Payà-Villamizar, C., Jiménez, A., and Gómez, F. (2019). Abuse in Colombian elderly and its association with socioeconomic conditions and functionality. *Colomb Med (Cali)*, 50(2), 77-88.
- Deka, B. and Patir, B. (2018). Elderly abuse: A study based on the elderly living in old age homes of Assam. *Indian Journal of Gerontology*, 32(4), 364-381.
- Galletta, A. (2013). *Mastering the semi-structured interview and beyond: From research design to analysis and publication*. New York: New York University Press.
- Gul, S. (2009). *An Evaluation of the Rational Choice Theory in Criminology*. New York: Columbia University Press.
- Hall, J. E., Karch, D. L., and Crosby, A. E. (2016). *Elder abuse surveillance: Uniform definitions and recommended core data elements for use in elder abuse surveillance*. Version 1.0. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Jackson, S. L. (2015). The vexing problem of defining financial exploitation. *Journal of Financial Crime*, 22, 63-78. doi:10.1108/JFC-05-2014-0026.
- Jackson, S. L., and Hafemeister, T. L. (2011). Risk factors associated with elder abuse: The importance of differentiating by type of elder maltreatment. *Violence and Victims*, 26, 738-757. doi:10.1891/0886-6708.26.6.738.
- Kieffer, C., and Mottola, G. (2016). *Understanding and combating investment fraud*. Paper presented at the Pension Research Council Symposium: Financial Decision Making and Retirement Security in an Aging World, Philadelphia.
- Laher, S. & Botha, A. (2012). Methods of sampling. In C. Wagner, B. Kawulich, & M. Garner. (Eds). *Doing social research: A global context* (pp. 86-99). New York: McGraw-Hill Higher Education.
- Lee, J., and Soberon-Ferrer, H. (1997). Consumer vulnerability to fraud: Influencing factors. *The Journal of Consumer Affairs*, 31, 70-89. doi:10.1111/j.1745-6606.1997.tb00827.x
- Miles, M. B., Huberman, A. M., and Saldana, J. (2013). *Qualitative data analysis: A methods sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.
- Mishra, R., Shekhar, C., and Gouda, J. (2016). Abuse against elderly widows in India and selected states: An exploration from BKPAI survey. *Indian Journal of Gerontology*, 30(2), 184-199.
- Morgan, R. E., and Mason, B. J. (2014). *Fear of Crime, Vulnerability and Poverty: Evidence from British Survey*. Cleroton : Oxford University Press.
- Naimark, D. (2001). Financial exploitation of the elderly: The evaluation of mental capacity and undue influence. *American Journal of Forensic Psychiatry*, 22, 5-20.
- Neuendorf (2018). *Content analysis and thematic analysis - ResearchGate*. Mobil Corporation
- Payne, B. K., and Strasser, S. M. (2012). *Financial exploitation of elder persons in adult care settings: Comparisons to physical abuse and the justice system's response*. Cleroton: Oxford University Press.
- Pillemer, K., Burnes, D. Riffin, K. and Lachs, P. (2016). The prevalence of elder abuse: A random sample survey. *The Gerontologist*, 28(1), 51-57.
-

- Polit, A. & Hungler, P. (2004). *Research methods: Research design is the cornerstone of research projects*. New York: Free Press.
- Pratt, T. C., Holtfreter, K., and Reisig, M. D. (2010). Routine online activity and internet fraud targeting: Extending the generality of routine activity theory. *Journal of Research in Crime and Delinquency*, 47, 267–296. doi:10.1177/0022427810365903.
- Saldaña, J. (2013). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage.
- Sebastian, D. and Sekher, T.V. (2010). Abuse and neglect of elderly in Indian families: Findings of elder abuse screening test in Kerata. *Journal of the Indian Academy of Geriatrics*, 6(2), 54-60
- Tueth, M. (2000). *Exposes financial exploitation of impaired elderly people*. New York: Oxford University Press.
- U.S. Government Accountability Office. (2012). *Elder justice: National strategy needed to effectively combat elder financial exploitation*. Publication No. GAO-13-110. Retrieved from <http://www.gao.gov/products/GAO-13-110>
- Waller, V., Farquharson, K. & Demsey, D. (2016). *Qualitative social research: Contemporary methods for the digital age*. Los Angeles: SAGE Publications Ltd.
- Wittek, R., Snijders, T. A. B., and Nee, V. (2001). *Rational choice social research*. Palo Alto. Stanford University Press.

SSIRC 2023-106**ENHANCING TVET LECTURER COMPETENCE THROUGH INDUSTRY-BASED INDUCTION AND MENTORSHIP: A WORK-INTEGRATED LEARNING EXPERIENCE****J. Mesuwini**

University of South Africa, South Africa

S.P. Mokoena

University of South Africa, South Africa

ABSTRACT

The South African government invests in TVET lecturers' learning to improve their practical experience. Lecturers engage in work-integrated learning (WIL) to acquire industry exposure. During WIL, they learn through induction and mentoring. The study aims to explore lecturer learning through induction and mentoring during WIL to understand what and how they learnt during industry WIL. An interpretive paradigm was adopted, which pointed to how data were generated and analysed. Induction and mentoring for TVET lecturers were explored within the interpretivist paradigm to understand what and how they learnt from their subjective experiences. Nine lecturers and nine industry personnel participated in the study. A face-to-face interview was employed to gather data, which were analysed thematically. Wenger's Social theory of learning was used to explain the findings. Lecturers learnt from induction and mentoring, which allowed them to acquire fundamental industry practices and offered technical and mutual support. Lecturers experienced learning by observing and imitating the observed actions under the experienced artisans' strict supervision. They took time to look for the meaning of observations before making judgements from their perspectives. Lecturers also reported learning from teamwork, networking and sharing experiences and ideas with industry personnel. During WIL, lecturers benefitted through artisans' guidance and mentoring and received direction to industry processes, while induction served as an initiation process to introduce lecturers to industrial machines and practices.

KEYWORDS: TVET, lecturer, industry, induction, mentoring, work-integrated learning**INTRODUCTION**

Technical and Vocational Education and Training (TVET) lecturers reported that industry personnel misconstrued their presence in the industry as if they were competing for their jobs (Mesuwini, 2022). It appeared there was no proper communication introducing the purpose of lecturer WIL in industry. The study aims to explore TVET lecturer learning through induction and mentoring in the industry during WIL. Therefore, induction and mentoring formally introduced lecturers to industry personnel, machines, and equipment. Smith (2016) explains that induction entails offering new entrants support, workplace information and procedures. Induction promotes lecturer learning through WIL by familiarising and adapting to industry settings (Mesuwini et al., 2023). Every industry has certain protocols that may not be like other industries. As such, the

induction process allows lecturers to acclimate themselves to company culture, job roles, and company goals. Induction is an orientation training meant to adjust to their new jobs and familiarise them with their new work environment and other employees.

Lecturers received industry induction training as a prerequisite to access the work area and equipment. The induction program allows lecturers to apply the theoretical knowledge acquired in their teacher preparation program to the complexity of real-life teaching (Mesuwini & Mokoena, 2023). The importance of lecturers engaging directly with industry professionals and artisans is highlighted. This engagement fosters valuable partnerships and networks, potentially leading to internship opportunities, guest lectures, and student job placements. Van der Bijl and Taylor (2018) in South Africa researched the development of TVET lecturers' skills in an industry setting to ensure they acquire expertise in teaching their subjects and preparing students for workplace demands. While the country's education has a strongly developed practice of school-based WIL, none currently offers a formal programme incorporating industry WIL. In South Africa, some institutions have engaged in TVET lecturer development through industry WIL (Smith, 2017). Mentoring allows the creation of an organisational environment that nurtures personal and professional growth through sharing information, skills, attitudes, and behaviours. Through mentoring, lecturers learn from artisan support to undertake different tasks.

LITERATURE REVIEW

This literature review explores the significance of work-integrated learning (WIL) for TVET lecturers and focuses on the twin pillars of induction and mentoring. It delves into the literature to understand how these mechanisms contribute to the competence development of TVET lecturers. The review drew on various studies to shed light on the key aspects of WIL, providing insights into how induction helps lecturers adapt to industry systems and how mentoring fosters continuous skill development. This literature review further provided a comprehensive analysis of WIL in the TVET context. It emphasised the critical roles played by induction and mentoring in lecturer development. It also discussed the long-term impact of mentoring on industry processes.

TVET lecturers are generally introduced to the industry's machines, equipment and materials during induction. Only through such a process do they get accustomed to and view the context as a favourable learning environment in the industry. The induction process introduces and explains to TVET lecturers on WIL the machines, safety procedures and company goals that need to be achieved through the WIL journey. In South Africa, Govender and Wait (2017) presented significant WIL benefits through induction, teamwork, building networks and contacts, meeting managers, allocating tasks and responsibilities and theory-practical linkages. The process was characterised by well-articulated induction and preparation processes, which were rigorous to minimise or eradicate incidents caused by inexperience or negligence.

Smith and Yasukawa (2017) explain that induction involves offering support, workplace information and procedures to new entrants. The lack of induction may lead to poorly integrated practical learning and friction among employees (Smith, 2017). Duncan (2017) opines that ensuring a steady supply of appropriately skilled lecturers reduces future recruitment, induction

and in-house training costs. Once lecturers are well prepared, they pass on the quality training to students and minimise or lay a good background understanding for further induction. When lecturers spend time in industry with artisans of the occupations they train college students, they study equipment, systems and procedures and perform pre-arranged work assignments (Duncan, 2017). Lecturers who immerse themselves in industry settings can enhance the quality of education they provide to college students. They can bridge the gap between theory and practice, ensuring students are better prepared for real-world challenges in their chosen occupations. This approach aligns with the WIL principles and can lead to more effective vocational training. It highlights the importance of lecturers gaining practical industry experience, which can positively impact the quality and relevance of vocational education. By participating in pre-arranged work assignments, lecturers have the opportunity to develop and refine their skills. The hands-on experience can be invaluable for understanding the intricacies of the industry and staying up-to-date with evolving technology practices (Mesuwini & Mokoena, 2023).

In contrast, Badenhorst and Radile (2018) argue that a limitation emerges from the induction process where observation supersedes hands-on engagement. As a result, induction loses its effectiveness, and lecturers miss fundamental principles. While Martin et al. (2011) suggest that lecturers must discuss their industry training expectations with workplace supervisors before they start their work placement, I feel that such negotiations should be documented in a logbook to ensure uniformity on the WIL programme for lecturers. Otherwise, some lecturers will have an induction, while others will not because of failed negotiations or different company settings. Furthermore, lecturers and industry discussions about induction are possible in a setting made available by the WIL department (Martin & Hughes, 2011). The WIL officer has a better standing as the work placement facilitator to arrange preparatory meetings and trainings.

Shandu (2016) explored the mentoring needs of novice lecturers at a TVET College in South Africa. The findings revealed that a lack of pedagogic skills and classroom management were the basic needs of these novice lecturers. Novice lecturers were qualified academically but not professionally. Shandu noted the need for an experienced practitioner to conduct induction and recommended that TVET colleges collaborate with nearby universities to offer courses to novice lecturers to develop them professionally. Therefore, concerning their qualifications, professional development and mentoring were recommended.

In South Africa, Oosthuizen and van der Bijl (2019) investigated how TVET lecturers-maintained industry skills and knowledge. Findings showed that lecturers gained subject knowledge from work and drew their initial subject knowledge from practical work exposure (Oosthuizen & van der Bijl, 2019). It was disclosed that there was a willingness to implement reforms to continue developing TVET education and lecturer training. The results showed that one in five TVET lecturers could not satisfy the minimum requirements for basic TVET lecturer qualifications. Exploring the link between mentoring and WIL (Smith-Ruig, 2014) discovered that mentoring yielded career-related benefits, which increased career understanding, confidence, knowledge, and appreciation of workplace realities.

This systematic review took a detailed glimpse at the literature on TVET lecturer learning through induction and mentoring. It employed a rigorous methodology to analyse a wide range of studies and presented a comprehensive synthesis of findings. The review examined the multifaceted nature of induction, showcasing how it familiarised lecturers with industry systems, enhancing their knowledge and skills. Furthermore, it delved into the intricacies of mentoring, emphasising the role of experienced artisans in providing ongoing guidance and support. The review concluded with implications for practice and future research in the field of TVET. The procedures and research techniques are outlined to identify, select, process, and analyse data about TVET lecturer learning through induction and mentoring.

METHODOLOGY

The methodology thoroughly describes the steps taken in the study and is supported by relevant literature. It briefly explains how trustworthiness, dependability, and triangulation are achieved. A discussion on ethics conveys the well-being of participants and their protection during data collection.

Research design

A case study design was adopted, which employed a qualitative approach.

“Qualitative researchers study things in their natural settings, trying to make sense of or interpret phenomena in terms of the meanings people bring to them, personal experience and their routine and problematic moments in life” (Denzin & Lincoln, 2018, p. 43).

The study was conducted in three TVET colleges in KZN province, adopting a multiple case study, given that the study was undertaken in three sites. The study focused on three different programmes: mechanical, electrical, and civil engineering, to derive cross-programme comparisons.

Sampling method

Sampling entails selecting participants who wield rich data in research. Sampling was done from a KZN TVET lecturer population that had completed WIL. Industry personnel hosting the lecturers on WIL formed part of the population. Their selection was purposive as they were directly involved with lecturer training. Lecturers were conveniently and purposively selected based on their proximity and lecturers who had completed WIL in the last six months. Sampling is defined as selecting a part of the population for study (Taherdoost, 2021). The lecturers on WIL and those who completed WIL within six months were the purposefully identified study participants. Industry personnel who hosted lecturers on WIL were part of the participants.

Research instrument

Face-to-face, semi-structured interviews and non-participant observation were used to generate data. Interviews reveal people's subjective experiences and attitudes (Crawford & Johns, 2018). The instrument was piloted before gathering data. This was to eliminate unexpected complexities, twists and turns that deserve investigation before falling speedily into the thick of the inquiry (Seidman, 2013). Non-participant observation was employed to make robust findings, which

involved observing participants using an observation checklist. The instrument allowed the capturing of data that might have gone unnoticed during the interviews.

Data collection

To collect data, gatekeepers from the respective TVET colleagues granted permission, and informed consent forms were signed by participants acknowledging their interest in participating in the study. The university granted permission through a clearance letter from the Institutional Research Ethics Committee (IREC). Data saturation was achieved after interviewing nine industry personnel and eighteen lecturers and observing the eighteen lecturers. Data were collected using voice-recorded, face-to-face semi-structured interviews and non-participant observation. A smartphone and laptop were used to voice-record the interviews. Using interviews and non-participant observation to collect data provided for data triangulation, which could address possible gaps deep-rooted in a single-method approach and provide prospects to test the trustworthiness and dependability of research findings (Mesuwini et al., 2022). The data were analysed as explained below.

Data analysis

Data were analysed thematically by identifying patterns (inductive analysis), transcribing the voice-recorded tapes, organising, and indexing the data, coding (deductive analysis), developing themes, juxtaposing the relationships amongst the different themes, and developing an interpretation of meaning.

THEORETICAL FRAMEWORK

Wenger (1998) identifies four learning tenets: community, identity, meaning and practice. The theory provides a conceptual framework for analysing learning as a social participation. A brief description of these components of learning follows below.

- (1) Community is a way to talk about the social configurations in which our enterprise is defined, and our participation is recognisable as competence.
- (2) Identity is a way to talk about how learning affects who we are. Together, these four elements offer an organisational foundation for the social theory of learning.
- (3) Meaning is a way to talk about our capacity to perceive the world as meaningful.
- (4) Practice is a way to discuss shared historical and social resources, frameworks, and perspectives supporting mutual engagement in action (Wenger, 1998, p. 5).

A community of practice is a network of connections between people with a common interest (Wenger, 1999). Lecturers on WIL belong to the industry community with a common goal of serving company interests while they acquire practical experience. During the engagement, lecturers' network with artisans, perform group activities and discussions, help each other, and share essential information.

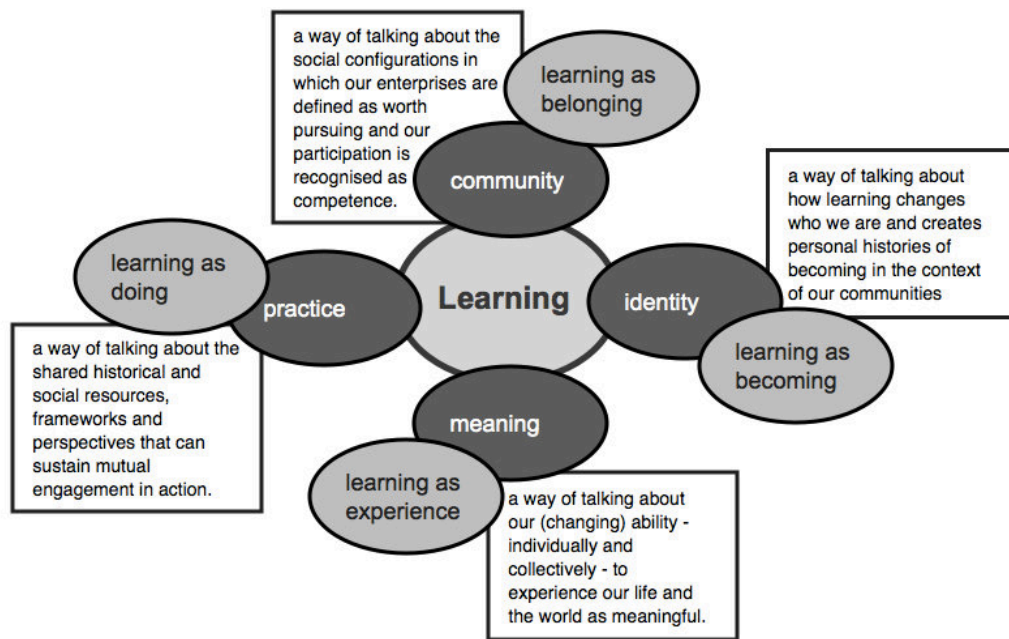


Figure 8: Wenger's Social Theory of Learning (Wenger, 1998, p. 5).

RESULTS AND DISCUSSION

The findings are presented and discussed together. The findings indicate that lecturers learnt fundamental knowledge through induction and mentoring. Lecturer 4 reported:

"I received training on induction, basic safety and introduction to boilermaking and welding".

A lecturer reported doing all the listed skills from the excerpt above. Basic safety in induction training is received, which guides one to the company's operating rules and procedures. The rules are meant to prevent incidences that can sometimes damage equipment, production loss, injuries, and fatalities in worst-case scenarios.

Induction

Induction is a learning process that promotes TVET lecturers' learning during WIL to familiarise themselves and become accustomed to the systems. Induction provides knowledge and skills to improve novices' performance in performing their job (Gholam, 2018). Therefore, induction in the industry was compulsory and a prerequisite for WIL lecturers to access the work area and equipment. The practice is referred to as a community of practice where a group of people shares a concern on something they do and learn how to perform it better in the future as they interact regularly (Wenger, 1998). Twenty-three participants (lecturers and industry personnel) from the construction, electrical and mechanical industries highlighted learning through induction before using machines and equipment. There was agreement that the nature of lecturer learning included induction, where they observed how to operate machines before using them. A lecturer at the civil engineering industry commented that a:

“Proper workplace training had to occur before using machines” (Lecturer 14).

The training involved a basic introduction to machine use and behaviour. Lecturers familiarised themselves with machines and equipment before they could operate them independently. It was observed that lecturers obeyed instructions as they received machine training at civil engineering Company 1. They were taught to operate the dumper, concrete mixer, and compactors. This collective learning results in practices that reflect the pursuit of an organisation (Wenger, 1998). In defining the qualities of good Vocational Education and Training (VET) teachers, Smith and Yasukawa (2017) describe the ability to hear the sounds of trouble when using machines and tools. The ability to attach meaning to machine sounds defines good workmanship as one can distinguish between a working sound and a danger warning sound.

Proper workplace training in the excerpt above suggested that the lecturer was probably coached through a scheduled induction programme that prepared the lecturer for the industry. During induction, lecturers were introduced to company culture and processes to catch up quickly, feel well received and develop an awareness of their company responsibilities. The industry is regarded as a community that discusses the social configurations in which the company is defined, and participation is identifiable as competence (Wenger, 1998, p. 188). Training in WIL refers to teaching and learning activities that help lecturers acquire and apply knowledge, skills, abilities, and attitudes for a particular task. The findings are consistent with the literature (Van der Bijl & Taylor, 2016) that companies require more time to gain trust and test lecturer competencies before permitting them to work independently. A lecturer from the boilermaking industry at Company 2 also responded:

“We were taught to get a permit to enter the plant and to operate the machines and equipment. Any transgressors found operating machines without permits were dismissed without suspension because of zero tolerance to accidents” (Lecturer 4).

The twenty-three participants confirmed the induction process from which they experienced learning. At Company 3, two similar responses from electrical lecturers also stated that *“there was induction on how to use machines”* (Lecturer 18). Similarly, Lecturer 12 added:

“The artisans and supervisors first give us induction. You could not use machines without an induction on how the machines function”.

Regarding lecturer learning through induction, my observation at Company 2 confirms what Lecturer 4 said:

“a permit was needed to access the plant and operate machines”.

Lecturers agreed that there was learning through induction during WIL. Through induction, the nature of lecturer learning included how to use industry machines before engaging in any duties. The findings are consistent with the literature that companies need more time to gain trust and test lecturer competencies before authorising them to work independently (Govender & Wait, 2017). The findings are in tandem with (Mesuwini et al., 2023), who posit that WIL experience has

significant benefits because induction provides clear, helpful, supportive and professional theory-practical relationships. The literature studied further identified significant WIL benefits through induction, where lecturers are introduced to the equipment and machinery, working teams, and allocated tasks and responsibilities (Govender & Wait, 2017).

After undergoing a one-day induction course and writing an induction competence test, I got a permit to access the plant to observe TVET lecturers learning through WIL. From the discussions above, lecturers experienced learning through induction at the workplace. As I observed at the company, the TVET lecturers were inducted as a prerequisite to using the machines. Induction training is provided to the workforce to acquaint them with the company's conditions, rules and regulations, and setup (Yeap et al., 2021). A permit was proof that a lecturer on WIL had passed the induction test and was ready to enter the plant. The response is aligned with researched literature where companies resisted lecturers on WIL to work independently in dangerous and high-risk work environments (Van der Bijl & Taylor, 2016). Other authorities describe induction as a period when lecturers have their first experience and adjust to their roles and responsibilities (MacPhail et al., 2019). The assertion confirms that the industry considered induction vital in ensuring lecturers experienced appropriate learning to engage in processes. The findings are in tandem with Bergami and Schuller's model, which indicates that irrespective of the type of industry, the lecturer encounters a period of adaptation and adjustment to the host company (Bergami & Schuller, 2009). Kolb (1984) describes experiential learning theory (ELT) as a human adaptation process to the social and physical environment. In this case, it occurred through induction. Lecturers also learnt through mentoring from experienced industry personnel.

Mentoring

In addition to learning through induction, sixteen lecturers also experienced learning through mentoring. In the workplace, mentoring is when an experienced artisan (mentor) provides ongoing field-based guidance on processes and technical information to the TVET lecturer on WIL. TVET lecturers were able to learn from mentors by watching demonstrations of artisans engaged in various engineering procedures. In this regard, most human behaviour is learnt observationally from others (Bandura, 1977). It gives rise to new ideas and the modification of existing abstract concepts. In the mentoring process, supervisors assist TVET lecturers in accomplishing specific tasks and learning from the support. From the WIL experience, induction is an initiation process for lecturers engaging in industry exposure, while mentoring leads industrial processes in the long term. Communities of practice are formed by people who engage in cooperative learning in a shared domain of human endeavour... learning to survive, ... a group of engineers working on similar problems (Lave & Wenger, 1991). Findings from this study demonstrate that the artisan supervisor helped carry out activities to promote TVET lecturers' learning through mentorship (Uen et al., 2018). A study by Clayton (2012) states that workplace training was supported by mentoring from appropriately experienced industry personnel. Kolb describes this stage as active experimentation, where lecturers tried out what they had learnt (Kolb, 1984). Kolb's active experimentation stage involves putting 'theory' learnt from reflection and conceptualisation into practice, attaining new practical experience with new ideas and simulating through working with practical applications (Kolb, 1984). The TVET lecturer puts what was learnt during this phase into

practice (Gosling & Moon, 2001). The following interview extract illustrates learning from observation:

“Supervisors took me through and showed how things were done. This was learning through seeing. They demonstrated everything before I could do it alone” (Lecturer 2).

The response showed that lecturer learning was from observing operators and artisans engaging in industry operations. A plumbing lecturer from civil engineering Company 1 reported:

“I watched and observed what the artisan plumber did” (Lecturer 11).

A Training Officer at the carpentry, civil engineering Company 1 confirmed that:

“Lecturers had an observation of my demonstrations on processes” (Training Officer 3).

The excerpts show that lecturers underwent Kolb’s reflective observation stage to examine and evaluate the experience. From the comments above, for Lecturers 2 and 11, learning took place through WIL involved observing demonstrations from artisans. Through observations, lecturers addressed the tacit and dynamic aspects of knowledge creation and sharing and the more explicit aspects directed by artisans (Wenger-Trayner & Wenger-Trayner, 2019). Industry personnel agreed that lecturers observed artisans demonstrating industry procedures. Demonstrations were a part of the nature of lecturer learning by motivating and enabling lecturers to see how practical processes were carried out. At Company 1, the author’s observations revealed the artisan demonstrating to lecturers how to lay, join, and mount copper pipes on the wall. Hence, the demonstration showed the step-by-step procedures for using machines and materials. Lecturer 3 added:

“I learnt the difference between materials and how to select it depending on the part to be machined” (Lecturer 3).

During induction, TVET lecturers were introduced to machines, equipment and materials used in the industry. The knowledge was essential for them to understand material properties and their selection for use. TVET lecturers encounter a period of adaptation and adjustment to the host company’s culture, irrespective of the industry. Bergami et al. (2011)’s model aligns with this finding that the teacher observes, analyses, reflects, deconstructs, and reconstructs the workplace processes, thereby gaining new insights that should enable progression to the next step in the model. From the above discussion, artisans explain their demonstrations while lecturers observe, reflect, and learn how to use tools and equipment. Lecturers on WIL learnt acceptable practices using cost-cutting measures on time and material. Generally, mentoring forms part of the nature of their learning and directs industry processes, while induction is an initiation process to introduce lecturers to industry procedures. Experienced artisans and supervisors closely guided lecturers in learning through induction and mentoring during WIL through step-by-step demonstrations on performing their responsibilities. Many participants at all companies acknowledged that qualified

artisans were instrumental in mentoring them during WIL. Through mentoring, lecturers went through Kolb's reflective observation and got new ideas through modifying, analysing and evaluating experiences (Kolb, 1984).

Mentoring is vital to lecturer learning, emphasising inquiry, experimentation and reflection (Korthagen, 2016). Mentoring is further explained as occurring through demonstrations. Mentoring has a significant and positive impact, which offered lecturers learning during WIL to develop career goals and feel integrated into work (Uen et al., 2018). Research shows that mentoring positively affects employee performance (Lester et al., 2011; Scandura & Schriesheim, 1994), implying that mentoring may influence and shape lecturer learning during WIL. The following comments were made by one lecturer who learnt through mentoring during WIL:

“My mentor was always there to show me how to do things. Even if I knew how to do it, a mentor was there to show me the different ways to ‘kill a cat’. Sometimes I took a long way to do a task, but there is a shortcut to save material, time and money” (Lecturer 4).

The excerpt above showed how supervisors supported lecturer learning during WIL through mentoring.

“When a mentor is perceived as knowledgeable, skilled and competent in performing the role of mentor, this influences mentee’s experiences of training, trust and socialisation” (Uen et al., 2018, p. 95).

The mentors (artisans) who guided TVET lecturers had some of these attributes. When the lecturer said the mentor was always on the side, it appeared that the lecturer had close guidance from the mentor. Hence, TVET lecturers got instant feedback during their practical learning. The metaphor ‘many ways to kill a cat’ explains that the mentor provided different industrial processes and systems. Furthermore, some lecturers on WIL may have learnt acceptable practices on performing tasks in the shortest possible time using minimum material as mentors exposed them to shortcuts. Most participants (24) acknowledged that qualified artisans were instrumental in mentoring them during WIL as follows:

“The artisans were always on the forefront to have a job started and outlining the steps to be followed to do the job correctly” (Lecturer 17).

The artisans worked closely with TVET lecturers through mentoring during WIL, ensuring they understood the tasks through their timeous guidance and mentoring. In pursuit of their interests in learning through mentoring from artisans, lecturers engaged in joint activities and discussions as an industry community, helped each other, and shared information (Wenger & Wenger-Trayner, 2020). Researched literature emphasises lecturer open-mindedness and willingness to listen to guidance from others and act upon criticism (Dewey, 1933). According to Kolb's theory, lecturers learning through WIL undergo active experimentation to try out what they learnt after induction and mentoring. Kolb's theory reinforces active involvement, leading to learning and questioning time during reflective observation. Lecturers then compare what they have done and how they

could have done it better. Finally, the lecturer puts into practice what was learnt, considering all changes needed to yield desired results. Wenger and Wenger-Trayner (2020) posit that it was revealed through the discussion that a conducive environment created through induction paves the way for effective mentoring to ensue, which enhances learning. Induction and mentoring allowed lecturers to share stories and cases that have become a common repertoire for their practice (Wenger, 1998).

CONCLUSION

The study showed that induction was an initiation process to introduce lecturers to industrial machines, systems and procedures while mentoring directed industry processes. It was confirmed that induction in the industry was a prerequisite and compulsory for lecturers on WIL to access the work area and equipment. The induction training involved the basic introduction to using machines, where lecturers familiarised themselves with different machines and equipment before they could operate them independently. Mentoring in the workplace provided ongoing guidance on processes and technical information during WIL. It was an important learning platform for lecturers to tap from industry experts. Therefore, induction and mentoring were critical in ensuring lecturers received pertinent details before engaging in industrial production lines. Furthermore, induction eliminated the gap that lecturers were misconstrued as competing for industry personnel jobs. A lecturer WIL model is recommended with set timelines and skills that lecturers should do.

REFERENCES

- Badenhorst, J. W., & Radile, R. S. (2018). Poor performance at TVET Colleges: Conceptualising a distributed instructional leadership approach as a solution. *Africa Education Review*, 15(3), 91-112.
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191.
- Bergami, R., & Schuller, A. (2009). Perceptions on industry placements: a scoping study of academics in Australia. *The International Journal of Knowledge, Culture and Change Management*, 9(9), 61-82. <https://vuir.vu.edu.au/4161/>
- Bergami, R., Schuller, A., & Cheok, J. (2011). Perceptions on industry placements: An exploratory study of academics at Malaysia. *The International Journal of Knowledge, Culture and Change Management*, 10(11), 73-92. <http://eprints.sunway.edu.my/688/1/Jason%20Cheok%20%20Perceptions%20.pdf>
- Clayton, B. (2012). Keeping Current: The industry knowledge and skills of Australian TVET teachers. "Collaboration in TVET". Proceedings of the 2nd UPI International conference on technical and vocational education and training, Bandung, West Java, Indonesia.
- Crawford, N. L., & Johns, S. (2018). An academic's role? Supporting student wellbeing in pre-university enabling programs. *Journal of University Teaching & Learning Practice*, 15(3), 1-23. <https://ro.uow.edu.au/jutlp/vol15/iss3/2/>

-
- Denzin, N. K., & Lincoln, Y. S. (2018). Introduction: The discipline and practice of research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (5 ed.). Thousand Oaks: Sage.
- Dewey, J. (1933). *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process* Vol. 8.
- Duncan, K. (2017). *Developing lecturers at VET institutions through engagements with industry: The South African experience* Vocational Education and Training in Sub-Saharan Africa: Current Situation and Development, Windhoek, Namibia. W. Bertelsmann Verlag GmbH & Co. KG
- Gholam, A. (2018). A Mentoring Experience: From the Perspective of a Novice Teacher. . *International Journal of Progressive Education*, 14(2), 1-12.
- Gosling, D., & Moon, J. (2001). How to write learning outcomes and assessment criteria. *London, SEEC Office, University of East London*.
- Govender, C., & Wait, M. (2017). Work Integrated Learning benefits for student career prospects—mixed mode analysis. *South African Journal of Higher Education*, 31(5), 49-64. <https://journals.co.za/doi/abs/10.28535/31-5-609>
- Kolb, D. A. (1984). Experience as the source of learning and development. *Upper Sadle River: Prentice Hall*.
- Korthagen, F. A. (2016). Pedagogy of teacher education. In International handbook of teacher education. In *International handbook of teacher education* (pp. 311-346). Springer. <https://doi.org/10.1007/978-981-10-0366-0.pdf>
- Lave, J., & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge University Press. <https://doi.org/https://doi.org/10.1017/CBO9780511815355>
- Lester, P. B., Hannah, S. T., Harms, P. D., Vogelgesang, G. R., & Avolio, B. J. (2011). Mentoring impact on leader efficacy development: A field experiment. *Academy of Management Learning & Education*, 10(3), 409-429.
- MacPhail, A., Ulvik, M., Guberman, A., Czerniawski, G., Oolbekkink-Marchand, H., & Bain, Y. (2019). The professional development of higher education-based teacher educators: needs and realities. *Professional development in education*, 45(5), 848-861.
- Martin, A., & Hughes, H. (2011). *How to make the most of work integrated learning*. Ako Aotearoa.
- Martin, A., Rees, M., & Edwards, M. (2011). Work integrated learning. A template for good practice: Supervisors' reflections. *Wellington, New Zealand: Ako Aotearoa*.
- Mesuwini, J. (2022). *TVET Lecturer Learning Through Work-integrated Learning: A Study of Three Colleges in KwaZulu-Natal* [Durban University of Technology]. Durban. <https://doi.org/https://doi.org/10.51415/10321/4545>
-

-
- Mesuwini, J., & Mokoena, S. P. (2023). TVET Lecturer Work-Integrated Learning: Opportunities and Challenges. *International Journal of Learning, Teaching and Educational Research*, 22(8), 415-440.
- Mesuwini, J., Thaba-Nkadimene, K. L., Mzindle, D., & Makwara, C. (2022). Exploring TVET lecturer perceptions about work-integrated learning in South Africa. *Skandinavisk tidsskrift for yrker og profesjoner i utvikling*, 7(1), 145–162-145–162.
- Mesuwini, J., Thaba-Nkadimene, L., Mzindle, D., & Mokoena, S. (2023). Work-integrated Learning Experiences of South African TVET Lecturers. *International Journal of Work-Integrated Learning*, 24(1), 83-97.
https://doi.org/https://www.ijwil.org/files/IJWIL_24_1_83_97.pdf
- Oosthuizen, L., & van der Bijl, A. (2019). Maintenance of Industry Skills and Knowledge by Vocational Lecturers at South African Technical and Vocational Education and Training Colleges. 2nd International Conference on Tourism Research, Porto, Portugal. Academic Conferences and Publishing International Limited
- Scandura, T. A., & Schriesheim, C. A. (1994). Leader-member exchange and supervisor career mentoring as complementary constructs in leadership research. *Academy of management Journal*, 37(6), 1588-1602.
- Seidman, I. (2013). Analyzing, Interpreting, and Sharing Interview Materials. Interviewing as Qualitative Research.(pp. 115-138). In: Teacher College Press: New York, New York.
- Shandu, S. C. O. (2016). *From the industry to the classroom: exploring mentoring needs of novice lecturers in a TVET College*
- Smith-Ruig, T. (2014). Exploring the links between mentoring and work-integrated learning. *Higher Education Research & Development*, 33(4), 769-782.
- Smith, A. (2016). *Experiential learning*. United Kingdom. Edward Elgar Publishing Limited.
- Smith, E., & Yasukawa, K. (2017). What makes a good VET teacher? Views of Australian VET teachers and students. *International journal of training research*, 15(1), 23-40.
<https://doi.org/10.1080/14480220.2017.1355301>
- Smith, J. (2017). External Formative Evaluation of ETDP SETA/SSACI WIL for lecturers in Public TVET Colleges Project. *Unpublished report. Johannesburg: JS & Associates/SSACI*.
- Taherdoost, H. (2021). Data Collection Methods and Tools for Research; A Step-by-Step Guide to Choose Data Collection Technique for Academic and Business Research Projects. *International Journal of Academic Research in Management (IJARM)*, 10(1), 10-38.
- Uen, J. F., Chang, H.-C., McConville, D., & Tsai, S.-C. (2018). Supervisory mentoring and newcomer innovation performance in the hospitality industry. *International Journal of Hospitality Management*, 73, 93-101.
<https://doi.org/https://doi.org/10.1016/j.ijhm.2018.02.009>
-

- Van der Bijl, A., & Taylor, V. (2016). Nature and dynamics of industry-based workplace learning for South African TVET lecturers. *Industry and Higher Education*, 30(2), 98-108. <https://journals.sagepub.com/doi/abs/10.5367/ihe.2016.0297>
- Van der Bijl, A., & Taylor, V. (2018). Work-integrated learning for TVET lecturers: Articulating industry and college practices. *Journal of Vocational, Adult and Continuing Education and Training*, 1(1), 126-145. <https://journals.co.za/doi/abs/10.14426/jovacet.v1i1.307>
- Wenger-Trayner, E., & Wenger-Trayner, B. (2019). *Introduction to communities of practice: A brief overview of the concept and its uses*. <https://www.wenger-trayner.com/introduction-to-communities-of-practice>
- Wenger, E. (1998). *Communities of practice. Learning, meaning and identity*. Cambridge. Cambridge University Press.
https://www.researchgate.net/publication/225256730_Wenger_E_1998_Communities_of_practice_Learning_meaning_and_identity
- Wenger, E. (1999). *Communities of Practice. Learning, meaning and identity*. Cambridge. Cambridge University Press.
- Wenger, E., & Wenger-Trayner, B. (2020). *Learning to make a difference: Value creation in social learning spaces*. Cambridge university press.
- Yeap, C. F., Suhaimi, N., & Nasir, M. K. M. (2021). Issues, challenges, and suggestions for empowering technical vocational education and training education during the COVID-19 Pandemic in Malaysia. *Creative Education*, 12(8), 1818-1839.

SSIRC 2023-111**PSYCHOLOGICAL WELL-BEING IN RELATION TO TEACHERS' WORK ENGAGEMENT****J. Mitonga-Monga**

University of Johannesburg, South Africa.

B.W. Makhubele

University of Johannesburg, South Africa.

ABSTRACT

Psychological well-being has been substantiated to influence work behaviours and outcomes positively owing to its link with health and desirable emotions. Consequently, educational institutions are paying more attention to employee well-being to ensure academic success. This study investigated the effect of psychological well-being on teachers' work engagement. Following a quantitative research approach, the study used a cross sectional research design with a convenience sample of 469 high school teachers in public schools in the Democratic Republic of Congo (DRC). The participants completed the Utrecht Work Engagement Scale (UWES) and the Psychological Well-being Scale (PWBS). Multiple regression analysis was used to examine the effect of psychological well-being on the work engagement of teachers. The results indicate that psychological well-being (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance) related positively and significantly with teachers' vigour, dedication, and absorption (work engagement). Furthermore, psychological well-being influenced teachers' work engagement. This study highlights the important role of teachers' psychological well-being on work engagement. Furthermore, the study contributes to sparse research on the impact of psychological well-being on work behaviours and outcomes.

KEYWORDS: Psychological well-being, vigour, dedication, absorption, work engagement

1. INTRODUCTION

Nationwide, basic education institutions are fundamental in training competent citizens who can add value to the country's economic and social landscape (Chürr; 2015; Zaki, 2018). Key stakeholders in these institutions are teachers who are expected to perform optimally, whilst giving their time, energy, and best effort to impart quality education (Akram, 2019). It is, therefore, not surprising that there is increasing interest in and research on health, psychological wellbeing, and work engagement in the teaching profession. Psychological well-being refers to a person's overall state of mental health and happiness (Aiello & Tesi, 2017; Ryan & Deci, 2000), while work engagement refers to a person's level of motivation and involvement in their work (Schaufeli & Bakker, 2010). Studies show that psychological well-being leads to various individual and organisational outcomes such as increased job satisfaction (Rahi, 2022), higher work engagement (Tesi et al., 2019), organisational performance and organisational commitment (Çankir & Sahin, 2018). Although employee health and psychological well-being are among the most important

factors in organisational success and performance, much of the research involving teachers has examined the impact of negative teacher experiences such as stress and burnout (Capone, et al., 2019; Li, 2021). Less is known about the effects of positive emotions and psychological functioning constructs on work behaviours and outcomes (Rusu & Colomeischi, 2020). To address this research gap, the present study examines the effect of psychological well-being on teachers' work engagement in selected public schools in the Democratic Republic of Congo (DRC).

1.1 DRC public school work context

The DRC is the second most populous country in Africa, where young people comprise 70% of the population (International Labour Organisation, 2019). The country also has rich mineral resources and metals, giving it the potential to become one of the richest countries in Africa (The World Bank, 2023; Mitonga-Monga, 2020). However, the DRC faces numerous socio-economic problems, for instance, 70% of the population lives below the poverty line owing to low income, poor access to health care and low enrolment and school completion rates (International Labour Organisation, 2019). Despite the promotion of education in the DRC, enrolment rates are low, with 78% of students attempting to complete their primary education and the enrolment rate for secondary schools at 33 % (United Nations International Children's Emergency Fund [UNICEF] RDC, 2021). Completion rates are even lower, with 73% completing basic education and only 23% completing secondary school (Ruforum, 2020). While there are several macro-environmental factors that impact the outcome of schooling activities, there are also prevailing micro-level factors that have a significant impact on the success of these educational institutions. Central to the functioning of schools and learners' academic performance are teachers who face challenges such as curriculum requirements, high teacher-learner ratio, work overload, and unfavourable time pressures, all of which impact their well-being (Dexi Consulting Group, 2021; Pretsch et al., 2013). According to Li (2021), teaching has long been considered a demanding occupation and it may be difficult to minimize these types of challenges, as they tend to be inherent within the occupational field. Despite their job challenges, however, teachers continue to display passion and dedication towards their work (Greenier et al, 2021). With psychological well-being identified as a predictor of work engagement, it is necessary to investigate the impact of teachers' well-being on their work engagement.

2. LITERATURE REVIEW

2.1. Theoretical framework

The job demands and resources (JD-R) model is a job design model that assumes that, regardless of the work environment, job demands, and resources are the two overarching primary job characteristics that affect employees (Tims & Bakker, 2010). Job demands are those aspects of a job that require sustained effort and consequently involve physiological or psychological costs (Bakker et al., 2014). Work demands in educational institutions include disruptive learner behaviour, work overload and limited work resources (Pretsch, 2013; Bakker & Bal, 2010). Conversely, job resources are features of a job that cushion job demands and help employees cope with their work and achieve work-related goals (Bakker

et al., 2014; Latika, 2018). Examples of workplace resources in educational settings include a positive social climate, support from supervisors, and access to information (Bakker & Bal, 2010).

The JD-R model assumes that work demands and resources trigger two processes: (1) the health impairment process, which is a consequence of high work demands, leading to burnout and, subsequently, poor health; and (2) the motivation process, which is a result of the abundance of work resources, leading to positive outcomes such as motivation and work engagement (Bakker et al., 2015; Tims, et al., 2013). The JD-R model further proposes that job resources and job demand interact to form the basis of and predict employee well-being (Bakker et al., 2015). According to this model, higher employee well-being is determined by increased work resources, which also cushion the strain of job demands (Rusu & Colomeischi, 2020). Job demands are expected to reduce work engagement when psychological well-being is low and have a lower negative impact on work engagement when psychological well-being is higher (Bakker et al., 2015).

2.2 Work engagement

Work engagement (WE) has emerged as an important positive emotional state that employees experience (Greenier et al., 2021; Perera, 2018). When employees are engaged, they are likely to feel competent, inspired, energised and happy (Bakker et al., 2015). This has a positive impact on the organisation, as these employees tend to be fully present at work, committed to the organisation, meet performance standards, exceed their formal job requirements, contribute indirectly to productivity in the organisation and deviate from undesirable behaviours such as absenteeism and turnover intentions (Anse van Rensburg et al., 2013; Mitonga-Monga, 2018; Ntseke et al., 2022).

Kahn (1990) conceptualises work engagement as the physical, cognitive, emotional presence and connection that people have with their work. Schaufeli et al. (2002) on the other hand, define work engagement as a work-related positive and satisfying state of mind, characterised by vigour, dedication, and absorption. Vigour refers to the high level of physical energy, mental resilience, and effort that employees persistently exert in their work (Bakker & Bal, 2010; Schaufeli et al., 2002). Dedication encompasses a strong psychological relation to and the inspiration, motivation, and enthusiasm that one must do their work (Bakker et al., 2015). Absorption refers to the extent to which an employee is captivated by and focused on their work, whilst finding it difficult to disengage from it (Bakker & Bal, 2010). Employees are engaged when they are attentive, determined, and enthusiastic about their work (Bakker et al., 2015).

2.3 Psychological well-being

Psychological well-being (PWB) can be conceptualised through two different perspectives, namely the hedonic and the eudaemonic approaches (Aiello & Tesi, 2017). The former focuses on subjective happiness and defines well-being as the experience of maximum gratification and the avoidance of pain or discomfort (Kahneman et al., 1999), while the latter focuses on positive mental health and refers to a person's optimal functioning and the realisation of their true potential (Ryff,

2018; Ryff & Keyes, 1995). This study adopted the eudaemonic approach, which is based on six dimensions, namely self-acceptance, autonomy, positive relations with others, environmental mastery, purpose in life and personal growth (Ryff & Keyes, 1995). Self-acceptance refers to one's positive attitude towards and the acceptance of different aspects of oneself; autonomy refers to having an internal locus of control, a sense of independence and confidence in one's 'judgements and decisions; positive relations with others is one's ability to build trusting and lasting relationships; environmental mastery refers to one's sense of competence and efforts to control the physical and imagined environment; purpose in life is one's perceived self-significance and setting of meaningful goals; and, lastly, personal growth refers to efforts taken to develop oneself and to achieve self-realization (Ryff & Keyes, 1995; Ryff & Singer, 2008).

Over the years, there has been a growing interest in employees' PWB (Akram, 2019; Park et al., 2017). This is largely due to changes in working conditions such as long working hours, work complexity and higher expectations and their impact on well-being (Park et al., 2017). Ensuring employee well-being can mitigate these challenges and lead to positive outcomes for both employees and organisations (Kundi et al., 2021). For instance, PWB has been identified as a driver of better social and learning practices among teachers and, subsequently, the academic achievement of learners (Buettner et al., 2016; Sarath & Manikandan, 2014).

2.3 Work engagement and psychological well-being

Previous studies have shown a link between PWB and WE. For example, Park et al. (2017) found a positive correlation between the two variables amongst corporate employees in different occupations. Another study by Aiello and Tesi (2017) found that most dimensions of PWB were positively associated with dimensions of WE amongst social workers. Specifically, their study found that self-acceptance and autonomy related positively with vigour and dedication. The positive relationship between PWB and WE have also been demonstrated in studies involving teachers. In a sample of 1335 teachers from different school levels, Romania et al. (2020) found a positive relationship between WE and PWB. Sarath and Manikandan (2014), also advocate for the relationship between PWB and WE and postulate that PWB is likely to increase WE among teachers, which in turn also promotes PWB. In line with existing literature on WE and PWB, the researchers of the current study hypothesised the following:

H1: There is a positive and significant relationship between PWB and WE.

2.4 Psychological well-being as a predictor of work engagement

To contribute to the sparse research on the impact of PWB on work-related outcomes, a few studies have examined the impact of PWB on WE. Cankir and Sahin (2018), for example, conducted a study, which found PWB to be a positive and significant predictor of WE in their study of textile workers. Rahi (2022), on the other hand, found that PWB accounted for the largest variance in WE compared to other workplace factors like job enrichment and training. Tesi et al. (2019) contextualised their findings within the JD-R model and report that PWB not only contributes to WE, but also acts as a buffer against the negative effects of job demands, as high PWB curtails the impact of job demands on WE. Similar results have been found in the educational context, as per Greenier et al.'s (2021) study, showing that PWB is a strong predictor of work engagement for

teachers. Interestingly, these researchers noted cultural differences in their findings, as PWB was found to be a stronger predictor of WE among British teachers compared to Iranian teachers. According to Mercer et al. (2020) and Ryff (2018), PWB has a positive impact on WE by enabling individuals to thrive, which in turn leads to teachers experiencing and identifying with their work more deeply and intensely. Therefore, the current study's researchers hypothesised the following: *H2: PWB has a significant and positive effect on work engagement.*

3. METHODOLOGY

3.1 Research design

A quantitative, cross-sectional research design was used to collect data from public high school teachers in the DRC between October and December 2018.

3.2 Sampling

The convenience sampling technique obtained a sample size of 469 high school teachers. High school teachers from selected schools in the Gombe Education Province, Kinshasa, participated in the study. Most of the participants are women (69.7%), while men accounted for 30.3% of the sample. Most of the participants were between the ages of 31 and 40 (62.3%), with 19.8% of the participants above the age of 41 years. In terms of qualification levels, 50.1 % held a diploma, 44.6 % held a bachelor's degree and only 5.3% had postgraduate qualifications. Lastly, most of the participants had above 11 years of work experience (63.3%), while only 10.7 % of the participants had 0 to 5 years of work experience.

3.3 Research instruments

This study used a biographical questionnaire to assess sample-specific demographic information relating to the participants' gender, age, education qualifications and tenure. The nine-item Utrecht Work Engagement Scale (UWES) assessed the sampled high school teachers' WE (Schaufeli & Bakker, 2004). The UWES uses a seven-point Likert scale ranging from 0 (never) to 6 (always), which measures the three dimensions of work engagement, namely vigour, dedication, and absorption (Schaufeli et al., 2006). Examples of the items from the measure include the following: 'At my work, I feel bursting with energy'; 'I am enthusiastic about my job'; and 'I get carried away when I'm working'. Studies have demonstrated good reliability for the UWES, for example, Mitonga-Monga (2018) reported a Cronbach's alpha coefficient ranging from 0.75 to 0.8, while de Bruin and Henn (2013) reported a Cronbach's alpha coefficient of .90 to .92. across 10 countries.

To measure PWB, this study used the 18-item PWB Scale (PWBS) by Ryff and Keyes (1995). The PWBS is scored on a 4-point Likert scale (1= no, not really my case to 4 = yes, that's right it is my case) to assess the six underlying dimensions of well-being, namely self-acceptance, autonomy, positive relations with others, environmental mastery, purpose in life and personal growth. Sample items from the scale include: "In general, I feel I am in charge of the situation in which I live"; "I have confidence in my opinions, even if they are contrary to the general consensus"; and "I am quite good at managing the many responsibilities of my daily life". The PWBS has evidenced

internal consistency with reliability alpha coefficients of .65 to .92 (Aiello & Tesi, 2017; Park et al., 2017).

3.4 Data collection

The University of Johannesburg's High Research Degree Committee and the district offices of various high schools in the DRC granted permission to conduct the study. The researchers visited the schools on site to conduct the surveys, using paper and pencils. Before participating, the researchers explained the survey and the study's context to the participants in terms of its purpose, the importance of their voluntary participation and assured them of the confidentiality and anonymity of their responses before they signed the consent form and completed the survey.

3.5 Data analysis

Data was analysed by using the Statistical Package for the Social Sciences (SPSS) version 28 software (IBM corporation, Armonk, New York, United States) (IBM SPSS, 2023). In terms of the confirmatory factor analysis, the factorial structure and validity were determined in the first stage. To calculate the CFA with Varimax, the study used a Kaiser-Meyer-Olkin (KMO) measure for sampling precision $>$ of 0.50, a factor loading of 0.60 and higher, and an eigenvalue of 1. Only factors loading 0.60 and above were considered (Hair et al., 2019).

The second stage involved computing descriptive statistics to determine the mean and standard deviations, as well as item analysis to determine reliability (Cronbach's alpha coefficient). Cronbach's alpha coefficients were calculated to measure the scale's reliability. According to Hair et al. (2019), Cronbach's alpha coefficient of 0.70 can be considered as an acceptable measure of internal consistency reliability. The researchers used factor loadings to determine the composite reliability of the scale and the average variance extracted.

The third stage used fit indices to assess the model fit of the constructs: the chi-square (CMIN/df $<$ 0.05); the comparative fit index (CFI); the Tucker-Lewis index (TLI $>$ 0.90); and the root mean square error of approximation (RMSEA $<$ 0.05). The fourth stage conducted correlation analysis to determine the relationship between PWB and WE. The fifth stage involved calculating multiple regression analyses to determine whether PWB predicted WE. Prior to conducting the regression analyses, collinearity diagnostics were conducted to ensure that zero-order correlations were below the rule of thumb ($r \geq 0.80$), variance inflation factors did not exceed ten, and tolerance values were close to 1 (Hair et al., 2019). The significant value was set at a 95% confidence interval ($p \leq 0.05$) to counteract the likelihood of type I errors. For the purposes of this study, the practical significance of the R^2 -values was determined by calculating effect sizes (f^2).

4. RESULTS AND DISCUSSION

4.1 RESULTS

4.1.1 *Confirmatory factor analysis, descriptive statistics, and Cronbach alpha coefficients*

Table 1 below shows the confirmatory factor analysis.

TABLE 1: Dimensionality, descriptive statistics, Cronbach alpha coefficients, and validity

| Construct dimensions | Items | Factor loading | Eigenvalues | Descriptive statistics | | A | CR | AVE | CFI | TLI | RMSEA |
|--------------------------------|-------|----------------|-------------|------------------------|------|------|------|------|------|------|-------|
| | | | | M | SD | | | | | | |
| Psychological well-being | | | | 4.12 | 0.44 | 0.81 | | | 0.98 | 0.96 | 0.05 |
| Positive relations with others | POR1 | 0.811 | 6.162 | 4.20 | 0.73 | 0.75 | 0.84 | 0.63 | | | |
| | POR2 | 0.800 | | | | | | | | | |
| | POR3 | 0.766 | | | | | | | | | |
| Autonomy | AUT1 | 0.844 | 2.249 | 4.12 | 0.67 | 0.77 | 0.85 | 0.65 | | | |
| | AUT2 | 0.802 | | | | | | | | | |
| | AUT3 | 0.702 | | | | | | | | | |
| Environmental mastery | ENM1 | 0.870 | 1.908 | 4.15 | 0.67 | 0.82 | 0.82 | 0.61 | | | |
| | ENM2 | 0.836 | | | | | | | | | |
| | ENM3 | 0.614 | | | | | | | | | |
| Personal growth | PEG1 | 0.887 | 1.744 | 4.05 | 0.70 | 0.82 | 0.83 | 0.63 | | | |
| | PEG2 | 0.814 | | | | | | | | | |
| | PEG3 | 0.651 | | | | | | | | | |
| Purpose in life | PUL1 | 0.781 | 1.579 | 4.09 | 0.65 | 0.79 | 0.79 | 0.56 | | | |
| | PUL2 | 0.753 | | | | | | | | | |
| | PUL3 | 0.699 | | | | | | | | | |
| Self-acceptance | SEA1 | 0.877 | 1.309 | 4.13 | 0.65 | 0.82 | 0.86 | 0.67 | | | |
| | SEA2 | 0.802 | | | | | | | | | |
| | SEA3 | 0.763 | | | | | | | | | |
| Work engagement | | | | 4.69 | 0.80 | 0.93 | | | 0.99 | 0.99 | 0.04 |
| Vigour | VI1 | 0.832 | 2.502 | 4.77 | 0.93 | 0.89 | 0.86 | 0.67 | | | |
| | VI2 | 0.814 | | | | | | | | | |
| | VI3 | 0.813 | | | | | | | | | |
| Dedication | DE1 | 0.872 | 2.387 | 4.59 | 0.87 | 0.84 | 0.88 | 0.71 | | | |
| | DE2 | 0.833 | | | | | | | | | |
| | DE3 | 0.830 | | | | | | | | | |
| Absorption | AB1 | 0.785 | 1.271 | 4.73 | 0.86 | 0.75 | 0.81 | 0.59 | | | |
| | AB2 | 0.760 | | | | | | | | | |
| | AB3 | 0.751 | | | | | | | | | |

Note. N =469, M; mean, SD; standard deviation, α ; Cronbach alpha coefficients, CR; composite reliability, AVA; average extracted variance, CFI; the comparative fit index, TLI; Tucker–Lewis Index, RMSEA; Root mean square errors of approximation

As shown in Table 1 above, principal component analysis and varimax rotation were used to determine the factorial structure and reliability of the study’s variables. The KMO index values were 0.813 for PWB, and 0.890 for WE. As shown in Table 1, the eigenvalues for all constructs in the study were above > 1, while all factor loadings were above 0.60 (Hair et al., 2019).

Table 1 also shows the descriptive statistics of the study’s variables. As indicated, teachers reported mean scores of between M= 4.05; SD = 0.70 and M = 4.77; SD = 0.93. In terms of PWB, participants reported the highest mean scores for positive relationships with others (M=4.20; SD = 0.73), followed by environmental mastery (M=4.15; SD =0.67), self-acceptance (M=4.13; SD

=0.65), overall psychological well-being (M =4.12; SD =0.44), autonomy (M= 4.12; SD = 0.67), and purpose in life (M=4.09; SD = 0.65), while they reported the lowest mean score for personal growth (M = 4.05; SD = 0.70). In terms of WE, participants scored the highest mean scores for vigour (M = 4.77; SD = 0.93), followed by absorption (M = 4.73; SD = 0.86), and overall engagement at work (M = 4.69; SD = 0.80), while they scored the lowest mean score for dedication (M = 4.59; SD = 0.87).

The Cronbach alpha coefficients in Table 1 ranged from 0.75 to 0.93, within the recommended range (Hair et al., 2019), as all composite reliabilities were above 0.70 (Fornell & Larker, 1981), and the average extracted variance of the PWB and WE variables was above 0.50 (Chin, 1998). Table 1 shows that the goodness-of-fit indices of all the study’s constructs were above the threshold of 0.90 for CFI and TLI (Hair et al., 2019), and the RMSEA ranged from 0.04 for WE to 0.05 for PWB (Tabachnick & Fidell, 2019).

4.1.2 Relating psychological well-being and work engagement

Table 2 below presents the correlation between PWB and WE.

TABLE 2: Correlations coefficients of the latent variables

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---------------------------------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Psychological well-being | 1 | 0.69** * | 0.46** * | 0.67** * | 0.64** * | 0.66** * | 0.53** * | 0.58** * | 0.46** | 0.58*** | 0.53** * |
| Positive relations with others | | 1 | 0.24** | 0.36** | 0.35** | 0.35** | 0.23** | 0.46** | 0.35** | 0.48** | 0.41** |
| Autonomy | | | 1 | 0.21** | 0.14* | 0.29** | 0.34** | 0.50** * | 0.45** | 0.51*** | 0.35** |
| Environment al mastery | | | | 1 | 0.32** | 0.29** | 0.18** | 0.33** | 0.30** | 0.27** | 0.34** |
| Personal growth | | | | | 1 | 0.34** | 0.20** | 0.19** | 0.11** | 0.27** | 0.11** |
| Purpose in life | | | | | | 1 | 0.23** | 0.39** | 0.36** | 0.35** | 0.35** |
| Self-acceptance | | | | | | | 1 | 0.49** | 0.36** | 0.49** | 0.49** |
| Work engagement | | | | | | | | 1 | 0.91** * | 0.91*** | 0.88*** |
| Vigour | | | | | | | | | 1 | 0.70** * | 0.72** * |
| Dedication | | | | | | | | | | 1 | 0.73*** |

Absorption 1

Note: N = 469 ***, p ≤ 0.001; **, p ≤ 0.01; *, p ≤ 0.05. +, r ≥ 0.10 (small effect); ++, r ≥ 0.30 ≥ r ≤ 0.49 (medium effect); +++, r ≥ 0.50 (large effect)

Table 2 above indicates that positive relations with others related positively with vigour (r = 0.35; medium effect size; p≤0.05), dedication (r = 0.48; medium effect size; p≤0.05), and absorption (r = 0.41; medium effect size; p≤0.05). Autonomy is related positively with vigour (r = 0.45; medium effect size; p≤0.05), dedication (r = 0.51; large effect size; p≤0.05), and absorption (r = 0.35; medium effect size; p≤0.05). Environmental mastery related positively with vigour (r = 0.30; medium effect size; p≤0.05), dedication (r = 0.27; small effect size; p≤0.05), and absorption (r = 0.34; medium effect size; p≤0.05). Table 2 reveals that personal growth related positively with vigour (r = 0.11; small effect size; p≤0.05), dedication (r = 0.27; small effect size; p≤0.05), and absorption (r = 0.11; small effect size; p≤0.05). Purpose in life related positively with vigour (r = 0.36; medium effect size; p≤0.05), dedication (r = 0.35; medium effect size; p≤0.05), and absorption (r = 0.35; medium effect size; p≤0.05). Table 2 shows that self-acceptance related positively with vigour (r = 0.36; medium effect size; p≤0.05), dedication (r = 0.49; medium effect size; p≤0.05), and absorption (r = 0.49; medium effect size; p≤0.05)

4.1.3 Effect of psychological well-being on work engagement

Table 3 presents results of the multiple regression analyses conducted to determine whether psychological well-being predicts teachers’ work engagement.

TABLE 3: Regression coefficients of the latent variables

| Variables | Model 1 Work engagement | | | Model 2 Vigour | | | Model 3 Dedication | | | Model 4 Absorption | | |
|---------------------------------------|----------------------------|-------|------|---------------------|-------|------|-----------------------|------|------|-----------------------|-------|------|
| | B | B | P | B | B | P | B | B | P | B | B | P |
| (Constant) | -3.35 | | 0.07 | -0.35 | | 0.69 | -2.9 | | 0.01 | -0.08 | | 0.87 |
| Positive relations with others | 0.80 | 0.27 | 0.01 | 0.29 | 0.23 | 0.01 | 0.38 | 0.32 | 0.01 | 0.13 | 0.16 | 0.01 |
| Autonomy | 0.98 | 0.29 | 0.01 | 0.46 | 0.31 | 0.01 | 0.45 | 0.32 | 0.01 | 0.08 | 0.10 | 0.02 |
| Environmental mastery | 0.39 | 0.12 | 0.03 | 0.27 | 0.19 | 0.02 | 0.05 | 0.04 | 0.51 | 0.07 | 0.09 | 0.13 |
| Personal growth | -0.22 | -0.07 | 0.14 | -0.10 | -0.08 | 0.16 | 0.07 | 0.06 | 0.26 | -0.19 | -0.24 | 0.01 |
| Purpose in life | 0.54 | 0.16 | 0.01 | 0.34 | 0.24 | 0.01 | 0.13 | 0.09 | 0.05 | 0.07 | 0.08 | 0.12 |
| Self-acceptance | 0.52 | 0.31 | 0.01 | 0.33 | 0.23 | 0.01 | 0.41 | 0.30 | 0.01 | 0.26 | 0.30 | 0.01 |
| F(df;Residual) | F (7;640) =84.68*** | | | F (7;640) =48.58*** | | | F (7;640) =85.24*** | | | F (7;640) =63.24*** | | |
| R | =0.48+++ | | | =0.34+++ | | | =0.48+++ | | | =0.41+++ | | |
| R² | =0.48+++ | | | =0.34+++ | | | =0.48+++ | | | =0.40+++ | | |

Note: β, standardized regression coefficient; B, unstandardized regression coefficient; df, degrees of freedom

The four computed regression analyses models were found to be statistically significant (F_p< 0.05). As indicated in Table 3, Model 1 contributed 48% (R²= 0.48: WE) of the variance that explained work engagement. As shown in Table 3, Model 1 (WE), self-acceptance (β = 0.31; p=0.01), autonomy (β = 0.29; p=0.01), positive relations with others (β = 0.27; p=0.01), purpose in life (β

= 0.16; $p=0.01$), and environmental mastery ($\beta = 0.12$; $p=0.03$), acted as significant predictors of overall WE, with self-acceptance contributing the most towards explaining the variance in overall WE.

As shown in Table 3, Model 2 contributed 34% ($R^2 = 0.34$: vigour) of the variance that explained vigour. As revealed in Table 3, Model 2 (Vigour), autonomy ($\beta = 0.31$; $p=0.01$), purpose in life ($\beta = 0.24$; $p=0.001$), positive relations with others, self-acceptance ($\beta = 0.23$; $p=0.01$), and environmental mastery ($\beta = 0.19$; $p=0.02$) acted as significant predictors of vigour, with autonomy contributing the most towards the variance in vigour.

According to Table 3, Model 3 contributed 48% ($R^2 = 0.48$: dedication) of the variance that explained dedication. Table 3, Model 3 (dedication), reveals that autonomy, positive relations with others ($\beta = 0.32$; $p=0.01$), self-acceptance ($\beta = 0.30$; $p=0.01$), acted as significant predictors of vigour, with autonomy and positive relations with others contributing the most towards explaining the variance in dedication.

Table 3 indicates that Model 4 contributed 41% ($R^2 = 0.41$: absorption) of the variance that explained absorption. Table 3, Model 3 (absorption), reveals those positive relations with others ($\beta = 0.16$; $p=0.01$), autonomy ($\beta = 0.10$; $p=0.02$), personal growth ($\beta = -0.24$; $p=0.01$), and self-acceptance ($\beta = 0.30$; $p=0.01$), acted as significant predictors of absorption, with self-acceptance contributing the most towards explaining the variance in absorption.

4.2 DISCUSSION

The aim of this study was to investigate the effect of PWB on WE in selected public high schools in the Gombe Provincial School District, Kinshasa, in the DRC. As expected, and confirming H1, the correlations result in Table 2 show a positive and significant relationship between PWB and WE. Specifically, all dimensions of PWB were positively and significantly associated with all WE dimension. These results are consistent with Rasu and Colomeischi (2020), who found that PWB and all its dimensions associated positively and significantly with dedication, absorption, vigour and overall, WE among teachers. This implies that teachers who feel good about themselves, rely on their judgement and acknowledge the impact of their actions, build good relationships with learners and colleagues, are self-aware, are able to master their learning environment, find meaning in their work, develop themselves, and work to fulfil their potential (Iliško et al., 2020; Jennings, 2015; Roeser et al., 2012) are also likely to find joy in their work, show special effort and patience with their learners, and commit their time and cognitive resources to their work, and vice versa (Greenier et al., 2021; Perera et al., 2018).

Like the study conducted by Tesi et al. (2019), the regression analysis in the current study also indicates that PWB is a positive and significant predictor of WE, confirming the second hypothesis of the study (H2). It is, therefore, expected that teachers are likely to be engaged with their work when they function optimally. The results in this study further reveal that autonomy, self-acceptance and positive relationships account for more variance and the positive effect across all WE dimension, namely vigour, dedication, and absorption. This suggests that teachers who have a positive attitude about themselves, effectively relate with others and have high internal locus of

control (Ryff, 2018; Ryff & Singer, 2008), display high levels of energy and enthusiasm, and are captivated by their work (Bakker et al., 2015; Khan, 1990).

The study's results also indicate that personal growth has a negative effect on absorption, a dimension of WE. This suggests that teachers who attempt to develop themselves, may not be absorbed in their daily work. It is noteworthy to mention that while efforts towards personal development can be made, these efforts are ineffective if teachers lack a solid foundation in teaching methods and learning processes (Iwanicki & McEachern, 1983). Therefore, a possible explanation may relate to the limited in-service training opportunities to prepare secondary school teachers in the Democratic Republic of Congo (Dexi Consulting Group, 2021). While continuous professional development (CPD) programmes are encouraged as an alternative, Taylor (2022) argues that the limited time or capacity of teachers can make it difficult for teachers to balance and concentrate on both learning activities and work responsibilities.

5. CONCLUSION

This study adds to limited research on the effects of positive psychological constructs by examining the relationship between psychological well-being and work engagement and the effect of well-being on how one experiences work. The findings draw attention to and provide a foundation for the importance of promoting psychological well-being in educational settings to increase teachers' work engagement. This can be achieved by prioritising early teacher training, granting autonomy, promoting mindfulness and goal setting among teachers, whilst encouraging cooperation and improving organisational culture and climate, among other things (Akanji et al., 2020; Li, 2021; Taylor, 2022). Future studies should extend the research to other DRC regions and countries on the African continent to expand and better generalise the study's findings. Researchers should also use combined research methods and explore the dimensions of psychological well-being in more depth.

REFERENCES

- Aiello, A., & Tesi, A. (2017). Psychological well-being and work engagement among Italian social workers: Examining the mediational role of job Resources. *Social Work Research*, 41(2), 73–84. <https://doi.org/10.1093/swr/svx005>
- Akanji, B., Mordi, C., Ituma, A., Adisa, T.A., Ajonbadi, H. (2020). The influence of organisational culture on leadership style in higher education institutions. *Personnel Review*, 49(3), 709-732. <http://dx.doi.org/10.1108/PR-08-2018-0280>.
- Akram, M. (2019). Psychological Wellbeing of University Teachers in Pakistan. *Journal of Education and Educational Development*, 6(2), 235-253.
- Anse van Rensburg, Y., Boonzaier, B., & Boonzaier, M. (2013). The job demands-resources model of work engagement in South African call centres. *SA Journal of Human Resource Management/ SA Tydskrif vir Menslikehulpbronbestuur*, 11(1), 484.

<http://dx.doi.org/10.4102/sajhrm.v11i1.484>.

Bakker, A.B., & Albrecht, S. (2018). Work engagement: Current trends. *Career Development International*, 23, 4-11. <https://doi.org/10.1108/CDI-11-2017-0207>.

Bakker, A.B., Demerouti, E., & Sanz-Vergel, A.I. (2014). Burnout and work engagement: The JD–R approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 389–411.

Bakker, A.B., Rodríguez-Muñoz, A., & Vergel, A.I.S. (2015). Modelling job crafting behaviours: Implications for work engagement. *Human Relations*, 69(1), 169–189.

<http://dx.doi.org/10.1177/0018726715581690>.

Bakker, A.B., & Bal, P.M. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83, 189-206. <https://doi.org/10.1348/096317909X402596>.

Buettner, C.K., Jeon, L., Hur, E., & Garcia, R.E. (2016). Teachers' social–emotional capacity: Factors associated with teachers' responsiveness and professional commitment. *Early Education & Development*, 27(7), 1018–1039. [http://doi.org/](http://doi.org/10.1080/10409289.2016.1168227)

10.1080/10409289.2016.1168227.

Çankir, B., & S, Sahin, S. (2018). Psychological well-being and job performance: The mediating role of work engagement. *Hittit University Journal of Social Sciences Institute*, 11(3), 2549-2560. [http://doi: 10.17218/hititsosbil.487244](http://doi:10.17218/hititsosbil.487244).

Chürr, C. (2015). Realisation of a child's right to a basic education in the South African school system: Some lessons from Germany. *PER/PELJ*, 18(7), 2405-2455.

<http://dx.doi.org/10.4314/pelj.v18i7.0>.

Capone, V., Joshanloo, M., & Park, M.S.A. (2019). Burnout, depression, efficacy beliefs, and work-related variables among schoolteachers. *International Journal of Educational Research*, 95, 97-108.

<https://doi.org/10.1016/j.ijer.2019.02.001>.

Chin, W.W. (1998). Issues and opinion on structural equation modelling. *Management Information Systems Quarterly*, 22(1), 7–16.

de Bruin, G.P., & Henn, C.M. (2013). Dimensionality of the 9-item Utrecht Work Engagement Scale (UWES-9). *Psychological Reports*, 112(3), 788-799.

<http://doi.org/10.2466/01.03.PRO.112.3.788-799>.

Dexi Consulting Group. (2021). Language of instruction country profile: *Democratic Republic of Congo*. Report prepared for Bureau for Africa Office of Sustainable Development,

Education and Youth Division at United States Agency for International Development, Washington, DC.

Greenier, V., Derakhshan, A., & Fathi, J. (2021). Teacher emotional regulation and psychological well-being in teacher work engagement: A case of British and Iranian English language teachers. *System*, 97, Article 102446.

<https://doi.org/10.1016/j.system.2020.102446>.

Hair, J.F., Jr., Black, W.C., Babin, B.J., & Anderson, R.E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.

Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *JMR, Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>.

Iliško, D., Badjanova, J., & Ignatjeva, S. (2020). Teachers' engagement with work and their psychological well-being. *Society, Integration, Education: Proceedings of the International Scientific Conference* (102-110). <http://dx.doi.org/10.17770/sie2020vol5.4981>.

Iwanicki, E.F., & McEachern, L. (1983). Teacher Self-Improvement: A Promising Approach to Professional Development and School Improvement. *The Journal of Staff Development*, 4(1), 62-77.

Jennings, P.A. (2015). Early childhood teachers' well-being, mindfulness, and self-compassion in relation to classroom quality and attitudes towards challenging students. *Mindfulness*, 6(4), 732–743. doi:10.1007/s12671-014-0312-4.

Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement of work. *Academy of Management Journal*, 33(4), 692–724. <https://doi.org/10.5465/256287>.

Kahneman, D., Diener, E., & Schwarz, N. (1999). *Well-being: The foundations of hedonic psychology*. Russell Sage Foundation.

Kundi, Y.M., Aboramadan, M., Elhamalawi, E.M.I., & Shahid, S. (2021). Employee psychological well-being and job performance: Exploring mediating mechanisms. *International Journal of Organisational Analysis*, 29(3), 736-754.

<https://doi.org/10.1108/IJOA-05-2020-2204>.

Latika, K. (2018). The effect of job features on job crafting as a developmental intervention. *The Journal - Contemporary Management Research*, 12(2), 36-63.

Li, S. (2021). Psychological wellbeing, mindfulness, and immunity of teachers in second or foreign language education: A theoretical review. *Frontiers in Psychology*, 12, Article 720340. <https://doi.org/10.3389/fpsyg.2021.72340>.

-
- Mercer, S. (2020). The wellbeing of language teachers in the private sector: An ecological perspective. *Language Teaching Research*, 0(0). <http://doi.org/10.1177/1362168820973510>.
- Mitonga-Monga, J. (2018). Employees' work engagement in a railway organisation: A perspective of ethical work climate and leadership behavior. *Acta Commercialia*, 18(1), a598. <https://doi.org/10.4102/ac.v18i1.598>.
- Mitonga-Monga, J. (2020). Sense of coherence, burnout and work engagement: The moderating effect of coping in the Democratic Republic of Congo. *International Journal of Environmental Research and Public Health*, 17(11), 4127. <http://doi.org/10.3390/IJerph17114127>.
- Park, J.G., Kim, J.S., Yoon, S.W., & Joo, B.K. (2017). The effects of empowering leadership on psychological-wellbeing and job engagement: The mediating role of psychological capital. *Leadership & Organization Development Journal*, 38(3), 350-367. <https://doi.org/10.1108/LODJ-08-2015-0182>.
- Perera, H.N., Vosickaa, L., Granzierab, H., & Mcllveenc, P. (2018). Towards an integrative perspective on the structure of teacher work engagement. *Journal of Vocational Behavior* 108, 28–41. <https://doi.org/10.1016/j.jvb.2018.05.006>.
- Ntseke, T., Mitonga-Monga, J., & Hoole, C. (2022). Transformational leadership influences on work engagement and turnover intention in an engineering organisation. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, 20(0), a2013. <https://doi.org/10.4102/sajhrm.v20i0.2013>.
- Pretsch, J., Flunger, B., Heckmann, N., & Schmitt, M. (2013). Done in 60 s? Inferring teachers' subjective well-being from thin slices of nonverbal behavior. *Social Psychology of Education*, 16(3), 421–434. <http://dx.doi.org/10.1007/s11218-013-9223-9>.
- Rahi, S. (2022). Investigating the role of employee psychological well-being and psychological empowerment with relation to work engagement and sustainable employability. *International Journal of Ethics and Systems*, 38(2), 266-285. <https://doi.org/10.1108/IJOES-12-2020-0200>.
- Roeser, R.W., Schonert-Reichl, K.A., Jha, A., Cullen, M., Wallace, L., Wilensky, R., Oberle, E., Thomson, K., Taylor, C., & Harrison, J. (2013). Mindfulness training and reductions in teacher stress and burnout: Results from two randomized, waitlist-control field trials. *Journal of Educational Psychology*, 105(3), 787–804. <https://doi.org/10.1037/a0032093>.
- Ruforum. (2020). *Le Renforcement de l'Enseignement Supérieur et Technique en République Démocratique du Congo : Rapport soumis au ruforum*.
- Rusu, P.P., & Colomeischi, A.A. (2020). Positivity ratio and well-being among teachers. The mediating role of work engagement. *Frontiers in Psychology*, 11, Article 1608. <https://doi.org/10.3389/fpsyg.202001608>.
-

-
- Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. <https://doi.org/10.1037110003-066X.55.1.68>.
- Ryff, C.D. (2018). Eudaimonic well-being: Highlights from 25 years of inquiry. In K. Shigemasu, S. Kuwano, T. Sato, & T. Matsuzawa (Eds.), *Diversity in harmony – Insights from psychology: Proceedings of the 31st International Congress of Psychology* (pp. 375–395). John Wiley & Sons Ltd. <https://doi.org/10.1002/9781119362081.ch20>.
- Ryff, C.D., & Keyes, C.L.M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719–727. <http://doi.org/10.1037/0022-3514.69.4.719>.
- Ryff, C.D., & Singer, B.H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9(1), 13-39. <http://doi.org/10.1007/s10902-006-9019-0>.
- Sarath, P., & Manikandan, K. (2014). Work engagement and work-related wellbeing of schoolteachers. *SELP Journal of Social Science*, V (22), 2349-1655.
- Schaufeli, W.B., & Bakker, A.B. (2010). Defining and measuring work engagement: Brining clarity to the concept. In A.B. Bakker & M.P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 10-24). Hove Press.
- Schaufeli, W.B., & Bakker, A.B. (2004). Job demands, job resources and their relationship with burnout and engagement: A multi sample study. *Journal of Organisational Behavior*, 25, 293–315. <http://dx.doi.org/10.1002/job.248>.
- Schaufeli, W.B., Bakker, A.B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66, 701–716. <http://dx.doi.org/10.1177/0013164405282471>.
- Schaufeli, W.B., Salanova, M., González-Romá, V., & Bakker, A.B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71–92. <http://dx.doi.org/10.1023/A:1015630930326>.
- Tabachnick, B.G. & Fidell, L.S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Taylor, N. (2022). Teacher Quality: The Preparation, and Utilization of Teachers in Sub-Saharan Africa. In I. Menter (Ed.), *The Palgrave Handbook of Teacher Education Research*, (pp 51-74). Palgrave Macmillan. doi.org/10.1007/978-3-030-59533-3_1-1.
- Tesi, A., Aiello, A., & Giannetti, E. (2019). The work-related well-being of social workers: Framing job demands, psychological well-being, and work engagement. *Journal of Social Work*, 19(1), 121–141. <http://doi.org/10.1177/1468017318757397>.
- The World Bank. (2023, March 29). *Democratic Republic of Congo*. <https://www.worldbank.org/en/country/drc/overview#1>.
-

- International Labour Organisation. (2019). *State of skills: The Democratic Republic of Congo*. https://www.ilo.org/skills/pubs/WCMS_736687/lang--en/index.htm.
- Tims, M., & Bakker, A.B. (2010). Job crafting: Towards a new model of individual job redesign. *SA Journal of Industrial Psychology*, 36(2), 9. <http://dx.doi.org/10.4102/sajip.v36i2.841>.
- Tims, M., Bakker, A.B., & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being. *Journal of Occupational Health Psychology*, 18(2), 230–240. <http://dx.doi.org/10.1037/a0032141>.
- UNICEF RDC. (2021). *Les enjeux de l' éducation en RDC : priorité sur les filles*.
- Zaki, S. (2018). Enhancing teacher effectiveness through psychological well-being: A Key to improve quality of teachers. *International Journal of Research in Social Science*, 8 (7), 286– 295. <https://doi.org/10.5502/ijw.v8i1.588>.

SSIRC 2023-112**CHALLENGES AND OPPORTUNITIES EMANATING FROM THE INTERNSHIP PROGRAMME IN THREE PUBLIC INSTITUTIONS OF LIMPOPO PROVINCE****S.J Mabeba**

University of Limpopo, South Africa

ABSTRACT

The internship programme presents both challenges and opportunities, which may vary across different institutions. This study aims to explore the challenges and opportunities arising from the internship programme, specifically within the Department of Provincial Treasury, the Department of Education, and the Department of Sport, Arts and Culture in Limpopo Province. To achieve this, a mixed research method, combining qualitative and quantitative approaches, was employed. The research was conducted between October and December 2019. The study included mentors of interns, managers responsible for human resources and skills development, as well as previous and current interns as target respondents. Semi-structured interviews were used to gather responses from mentors and managers, while semi-structured questionnaires were given to previous and current interns. A total of 79 participants actively engaged in this study. The findings reveal that the internship programme offers interns valuable opportunities to acquire knowledge, skills, and experience. Additionally, the study highlights the networking benefits provided by internships. However, it also identifies a noteworthy observation: some interns displayed a reactive rather than proactive approach, lacking the ability to take initiative. In conclusion, this study significantly contributes to the field of human resources and skills development by examining the challenges and opportunities associated with internships in public institutions within Limpopo Province.

Keywords: Opportunities, challenges, internship programme, work experience, networking

1. INTRODUCTION

Internship programmes vary significantly across different programmes and industries (Kappler-Hewitt, Von Dohlen, Weiler, Fusarelli & Zwadyk, 2020). Internships play a crucial role in employment preparation programmes, allowing student graduates to bridge the gap between theoretical knowledge and real-world experiences (Cunningham, 2007; Deschaine & Jankens, 2017; Dodson, 2015; Figueiredo-Brown, Ringler & James, 2015; Hackmann, Russell & Elliott, 1999; Nicks, Thibodeaux & Martin, 2018). Cross-disciplinary studies emphasise that internships enable emerging leaders to apply leadership theories in practice, thereby developing their abilities (Browne-Ferrigno, 2003, 2004; Butler, 2008; Cunningham, 2007; Cunningham & Sherman, 2008; Figueiredo-Brown et al., 2015). A robust internship is one that equips interns with essential professional competencies (Cunningham & Sherman, 2008). It is widely acknowledged that internships enhance participants' overall skill sets and improve their employability (Baert, Neyt, Siedler, Tobback & Verhaest, 2021; Silva et al., 2016).

Internships in higher education allow students to apply classroom learning in practical work settings, facilitating a smoother transition from academia to the professional world. With increased global interconnectedness, there is a rising demand for graduates with relevant knowledge and adaptable skills in different countries (Jones, 2013; Ogden, Streitwieser & Van Mol, 2020). Internships have become vital both as a corporate talent acquisition strategy and as an opportunity for graduates to gain direct business exposure and apply their skills in real-world contexts. They serve as a pathway for students and graduates to successfully transition into full-time employment (Collegiate Employment Research Institute, 2012). The fact that many businesses utilise internship programmes to identify and cultivate talent for permanent positions underscores the effectiveness of this approach (Collegiate Employment Research Institute, 2012). Businesses invest significant effort in ensuring intern retention due to the human capital acquisition potential offered by internships. Research indicates that employers can retain interns by assigning meaningful responsibilities, providing supervisor support, fostering learning relationships, offering feedback, and assigning quality work tasks (Hurst, Good & Gardner, 2012; Rowe, Mackaway & Winchester-Seet, 2012; Drewery, Church, Pretti & Nevison, 2019).

During their internships, individuals can learn in both formal and informal settings. Previous studies suggest that such environments contribute to higher job satisfaction among interns (Rowden & Conine, 2005).

2. THE GOAL OF THE STUDY

This study aimed to explore the challenges and opportunities associated with internship programmes. Willis (2018) emphasised that gaining work experience through internships significantly enhances candidates' prospects of securing employment. Completing an internship programme equips graduates with increased confidence, expertise, and practical experience. However, the National Youth Development Agency (NYDA) (NYDA, 2014) expressed concerns that interns often face limited learning opportunities as they are primarily assigned administrative tasks that may not be sufficiently challenging or relevant for skill transfer. Considering these contrasting viewpoints, the researcher conducted this study to investigate the validity of assumptions put forth by Willis, the NYDA, and other relevant sources.

2. REWARDS AND PITFALLS FOR TAKING INTERNSHIP PROGRAMME

This section examines the challenges and opportunities arising from internship programmes in South African government departments. According to research conducted by the NYDA (NYDA, 2014), internships provide graduates with the opportunity to select their areas of interest within specific employment categories. Internships also enable interns to identify their skills, weaknesses, and available opportunities, highlighting the importance of government financing to expand internship programmes and provide unemployed graduates with valuable work experience. The internship programme benefits both employers and graduates, as it allows graduates to acquire practical experience while enabling employers to enhance their workforce's knowledge, skills, and attitudes. Interns often have the chance to network with experienced professionals, gain workplace

experience, and develop skills such as time management, respect, and teamwork (Pietersen & Malatjie, 2022).

Graduate internship programmes have been found to contribute to graduates' professional development in their respective fields (Mabiza, Mahlalela, & Mbohwa, 2017, as cited in Pietersen & Malatjie, 2022). Graduates can choose to work in their chosen field or explore alternative professions, gaining a deeper understanding of their chosen discipline. Employers benefit from interns who bring fresh perspectives, innovative ideas, technical expertise, and the ability to adapt quickly to changing circumstances (Koyana & Mason, 2018). Internship programmes help graduates transition from unemployment to professional employment.

Internships offer numerous advantages, such as the opportunity to work alongside industry experts and build networks that can lead to references and future employment (Burns & Chopra, 2017). Graduates who have completed internships demonstrate improvements in personal, interpersonal, civic, and professional development, including discipline-related knowledge, communication skills, cultural competence, social responsibility, and career interests (Simons, Fehr, & Blank, 2012). Additionally, internships provide vital training in consultation, teamwork, self-esteem, motivation, ethical behaviour, and professional conduct (Green, 2012; Smith & Worsfold, 2014).

However, one significant drawback mentioned by Pietersen and Malatjie (2022) is that interns must end their current internships after twenty-four months, often leading to unemployment. Taking an internship does not guarantee permanent employment, and the number of unemployed graduates continues to rise as new interns cannot be hired within the twenty-four-month period. If an intern leaves their position before the completion of the twenty-four-month period, the organisation must wait for the entire cycle to hire new interns. It is important to note that the debate regarding the challenges and opportunities of internships is ongoing, as various stakeholders, including interns, scholars, public officials, academics, and political office-bearers, may have different personal experiences and observations that shape their perspectives on internships.

3. RESEARCH METHODOLOGY

The following section discusses the research approach employed, the sampling size and techniques used, and the ethical considerations considered in this study.

- **Research approach**

The study utilised a mixed research methodology, incorporating both qualitative and quantitative research methods, to gain a comprehensive understanding of the challenges and opportunities associated with internships in the selected government departments of Limpopo Province. Delport and Fouche (2011) define mixed methods research as an approach that combines qualitative and quantitative data collection and analysis techniques. By employing this mixed-methods approach, the researcher aimed to achieve a balanced presentation of qualitative and quantitative findings. This approach is further supported by Mamokhere and Meyer (2022), who emphasise that a mixed-methods research methodology allows researchers to achieve a balance between the strengths of

quantitative and qualitative research designs. Consequently, the study aimed to enhance the validity and reliability of the results by employing a mixed methods research approach.

- **Target population, sample size and techniques**

The target population for this study comprised previous and current interns, mentors of interns, and managers responsible for human resource and skills development. The target population refers to the entire group of individuals who possess the behaviours and/or traits of interest to the researcher (Elfil & Negida, 2017; Omair, 2014). The sampling technique used in this study involved a combination of purposive and random sampling methods.

Purposive sampling was employed to select mentors for interns and managers responsible for human resource and skills development in the Department of Provincial Treasury, the Department of Education, and the Department of Sport, Arts, and Culture. Purposive sampling involves the researcher's judgement in selecting participants based on their specific knowledge and expertise (Elfil & Negida, 2017). These participants were chosen due to their in-depth understanding of internship programmes and their roles in South African public institutions. Semi-structured face-to-face interviews were conducted with mentors and managers to gather their insights and perspectives.

On the other hand, random sampling was used to select current and previous interns. Random sampling ensures that every case within the population has an equal chance of being selected (Salkind, 2012; Shorten & Moorley, 2014). The goal was to capture a diverse range of experiences and perspectives on the opportunities and challenges encountered during internships. Semi-structured questionnaires in the form of a Likert scale, along with one open-ended question, were administered to current and previous interns.

In total, the study managed to involve seventy-nine participants, including mentors of interns, managers responsible for human resources and skills development, current interns, and previous interns. This sample size allowed for meaningful analysis and provided a range of insights into the research topic.

- **Ethical considerations**

The study adhered to the research ethics requirements of the University of Limpopo, obtaining an ethical clearance certificate with the reference number TREC/207/2019. Following the receipt of the ethical clearance certificate, the researcher sought permission from the three selected institutions to conduct interviews and distribute questionnaires. The researcher obtained the necessary approvals to collect the data.

During the data collection process, ethical standards were maintained. The researcher provided a clear explanation of the research purpose to all participants, ensuring they had a comprehensive understanding of the study. Participants were given sufficient time to make an informed decision about their participation, and their voluntary consent was obtained. Respecting participants' autonomy and privacy was paramount throughout the study.

4. PRESENTATION OF RESULTS

The empirical results presented in this section are derived from data obtained from the Department of Provincial Treasury, the Department of Education, and the Department of Sport, Arts, and Culture in Limpopo Province. The researcher begins by presenting quantitative results, followed by qualitative findings.

Contribution of internship programme on experience, knowledge, and skills

The study examined the motivations behind participants working as interns, and several reasons were identified. One of the primary motivations was the opportunity to gain valuable experience, knowledge, and skills. The figure below visually represents the different factors influencing their decision to work as interns.

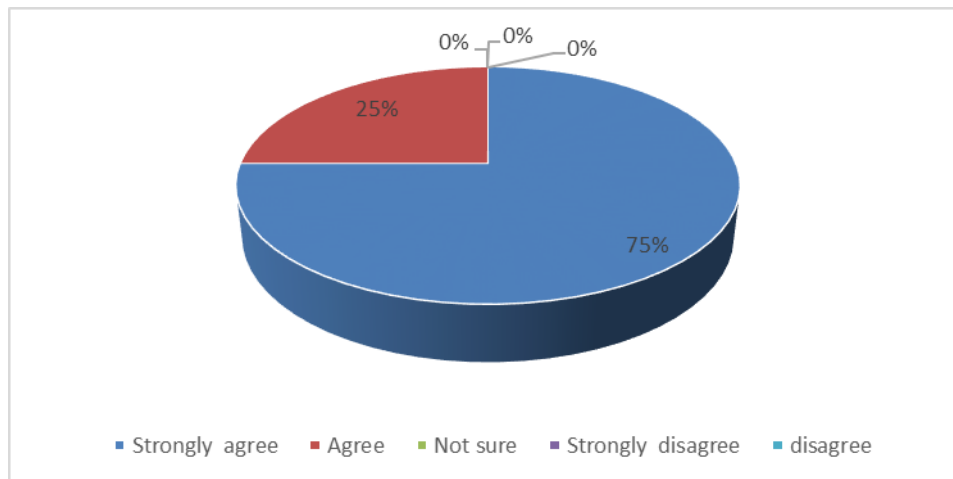


Figure 1: Contribution of internship programme

There is a consensus among researchers that participating in internships has a positive impact on interns' skill development and employability (Baert, Neyt, Siedler, Tobback & Verhaest, 2021; Silva, Lopes, Costa, Melo, Dias, Brito & Seabra, 2016). Graduates in higher education can benefit from putting their classroom learning into practice through real-world work experiences, which facilitates their transition into the workforce. With the increasing interconnectedness of global economies, there is a growing demand for graduates with international knowledge and skills (Jones, 2013; Ogden, Streitwieser & Van Mol, 2020).

In some cases, interns enter the workforce without adequate knowledge, experience, or skills. As a result, they choose to work as interns to acquire these essential attributes. The study found that most participants (75%) strongly agreed, and the remaining 25% agreed that gaining experience, knowledge, and skills were the primary reasons for working as interns. None of the participants were unsure, strongly disagreed, or disagreed with this assertion. Overall, the study concludes that all participants work as interns with the intention of gaining experience, knowledge, and skills.

The researcher suggests that interns are fully aware of their motivations for working as interns, and the study argues that experience, knowledge, and skills are fundamental reasons for implementing internship programmes in South African public institutions.

Internship programme as a platform for creating network.

Participants were asked if they worked as interns to meet new people and build a professional network.

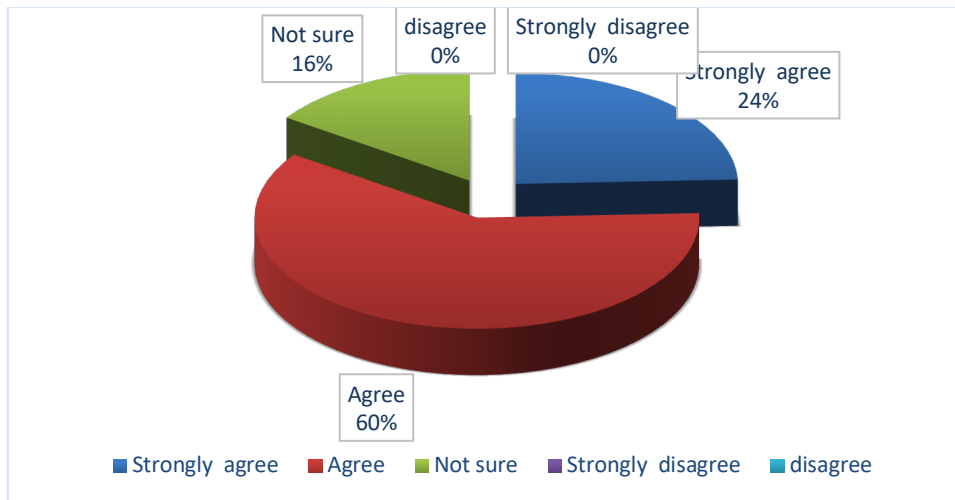


Figure 2: Internship is key for networking.

Internships offer graduates increased job search options post-graduation. Through internships, individuals can expand their network of contacts and gain insights into labour market conditions (Di Pietro, 2022). Interns often can network with experienced professionals in their field, acquire workplace exposure, and develop essential skills such as punctuality, discipline, and interpersonal abilities (Pietersen & Malatjie, 2022). The study findings indicate that 19% strongly agreed and 47% agreed with the idea, while 12% were unsure. Conversely, 10% strongly disagreed, and 12% disagreed. Overall, most participants acknowledged the importance of networking and meeting diverse individuals during their internship. This networking opportunity is significant for personal development, as it allows interns to connect with influential and knowledgeable individuals who may provide job, business, and other opportunities at work, training sessions, meetings, conferences, and workshops.

Perceptions of interns about internship as a preparation for corporate world

The researcher inquired whether participants chose to work as interns with the expectation that the internship programme would prepare them for the corporate world.

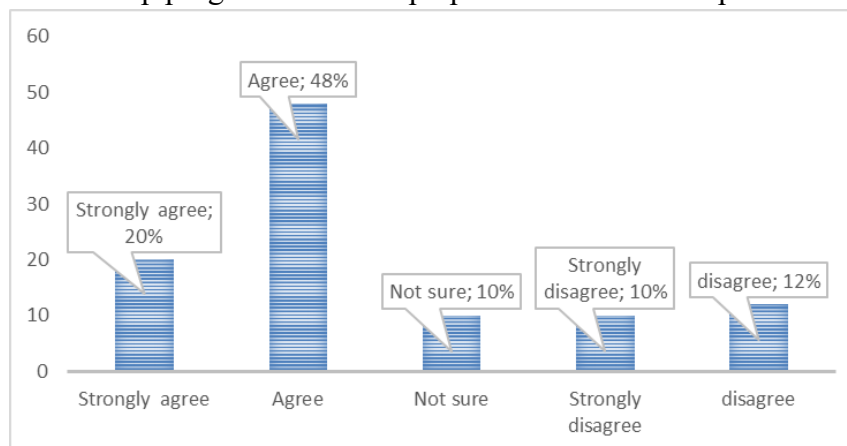


Figure 3: Internship as a preparation for corporate world

The internship programme provides interns with essential multi-skilling and cutting-edge technology knowledge to compete in the job market. Research by Di Pietro (2022) supports this, highlighting that internships equip participants with the necessary knowledge and abilities for success in the job market. Mabeba (2021) also acknowledges the internship programme's role in preparing graduates for the job market, despite certain challenges.

The figure above illustrates the perceptions of respondents regarding their preparation for the corporate world through the internship programme. The results indicate that 20% strongly agreed and 48% agreed with the notion, while 10% were unsure. Conversely, 10% strongly disagreed, and 12% disagreed. These findings suggest that most participants actively prepare themselves for the corporate world through the internship programme.

The study concludes by emphasising the potential benefits of the internship programme. It can assist interns in securing permanent employment and expose them to a variety of skills. Moreover, interns can gain insights into the core functions of their host institutions within society.

Internship programme as a source of income

The study investigated whether interns' motivation was primarily driven by the need to generate income for their standard of living or if their focus was more on gaining exposure and experience. It was observed that for some interns, income generation was not their main priority, but rather they were seeking valuable exposure and experience.

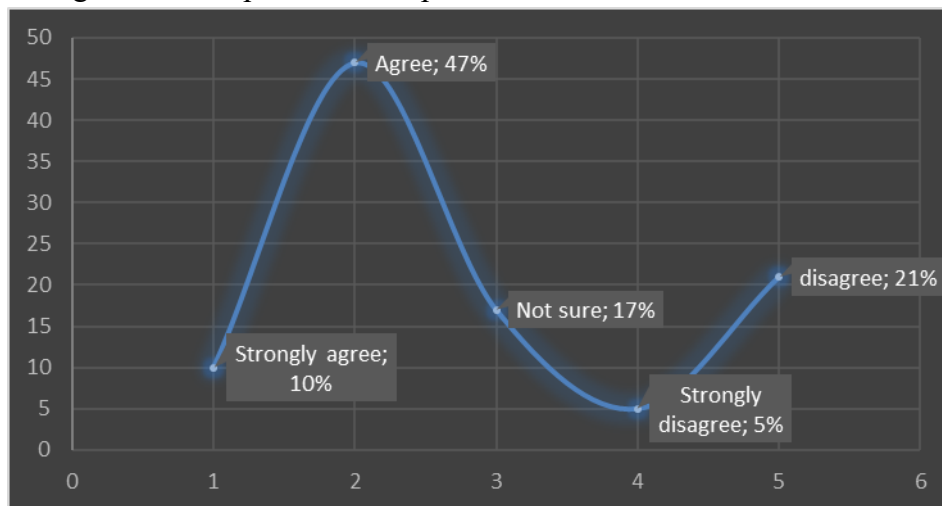


Figure 4: Internship as a source of living

The study examined the perceptions of respondents regarding their motives for participating in an internship programme, specifically whether their primary motive was to earn income or not. The findings reveal that 10% strongly agreed and 47% agreed with the notion, indicating that a significant proportion of participants view internships as a source of income. However, it is important to note that 17% were unsure, while 5% strongly disagreed and 21% disagreed with the idea.

These results suggest that while most participants see internships as an opportunity to earn income, there are varying reasons that drive graduates to pursue internships. Some participants perceive internships as a valuable opportunity to acquire skills, while others view them to generate income.

Internship programme as a prerequisite for entry level employment

The study aimed to investigate whether participants (interns) shared the common assumption that obtaining a job in the South African public and private sectors is challenging without prior experience.

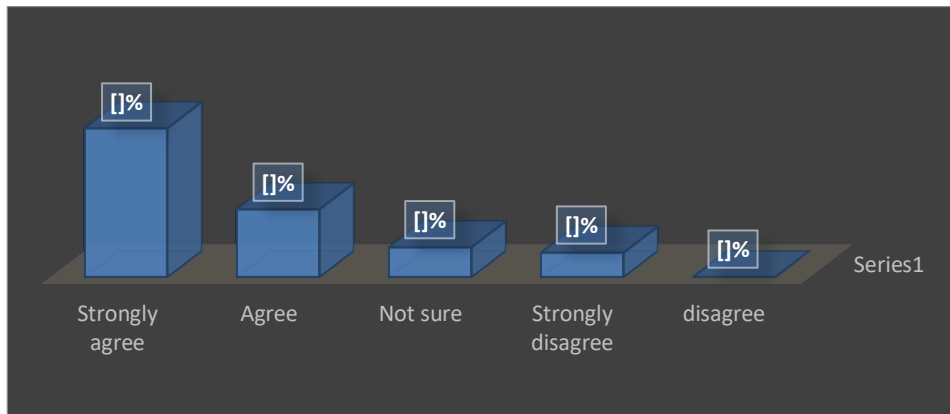


Figure 5: Internship as a prerequisite

The internship programme plays a crucial role in providing graduates with the necessary experience to enhance their employability in businesses offering entry-level positions. The evidence supports this notion, with unemployment rates in South Africa reaching 24.2% in 2011, 25.2% in 2013, and 32.5% in 2020 for the adult population (Oluwajodu et al., 2015; StatsSA, 2020). Only 1.8% of recent graduates were unemployed in 2020, compared to higher rates for those without a matric or with one (StatsSA, 2020). However, graduate unemployment has since risen to 12.5% (StatsSA, 2021). A key contributing factor to high graduate unemployment is the lack of experience and training among young individuals upon leaving higher education institutions (Koma, 2010).

The study asked participants whether they pursued internships because they believed it was difficult to secure a job without prior work experience. The findings indicate that 55% strongly agreed and 25% agreed with this belief. Furthermore, 11% were unsure, and 9% strongly disagreed, with none of the participants disagreeing.

Therefore, most participants utilise internships to gain experience, recognising the challenges of obtaining employment without prior work experience. This highlights the perception among participants that internships are crucial for improving their job prospects in a competitive job market.

Do interns get full time jobs at the host department post internship programme?

The study aimed to investigate whether participants chose to take up internships because they observed a trend of previous interns being offered employment within their host departments after completing the internship programme. The findings are as follows:

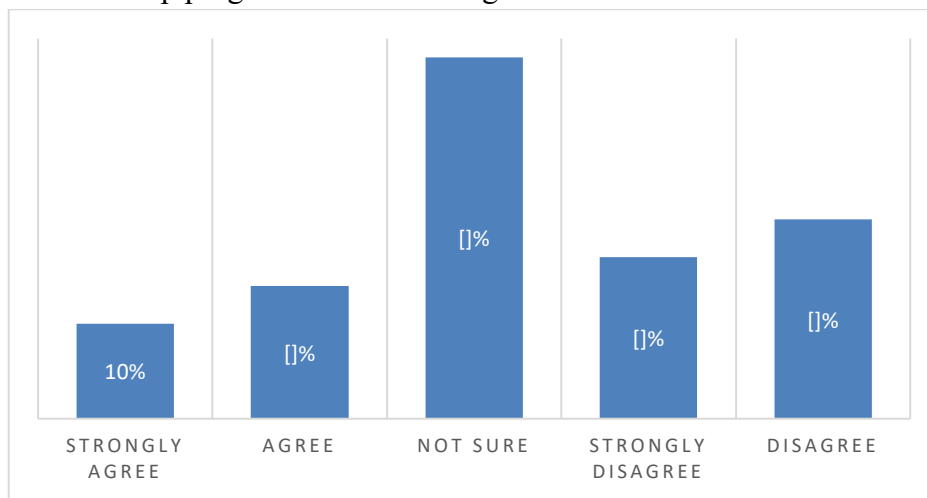


Figure 6: Internships and their impact on securing permanent jobs.

According to the International Monetary Fund's 2013 report on South Africa, generating the necessary economic growth is crucial for creating millions of jobs and reducing unemployment rates by absorbing new workers. In this context, internships play a vital role in attracting, acquiring, and retaining talented individuals for the future generation of public sector leaders (Clinton, 2003; Chauhan, 1978).

The study's results indicated that only a small percentage of participants (10% strongly agreed, 14% agreed) took up internships because they were encouraged by the previous interns who secured employment at their host departments after completing the programme. A significant portion of participants (38%) expressed uncertainty about this trend. Additionally, 17% strongly disagreed, and 21% disagreed with the notion.

These findings suggest that most interns are not primarily motivated by the example of previous interns securing permanent positions. Instead, their motivations are likely centred around factors such as income generation, knowledge acquisition, skill development, and gaining practical experience. It is possible that some interns may also utilise internships to stay occupied while waiting for full-time employment opportunities.

The role of internship programme on linking theory with practice

One of the primary objectives of the internship programme is to facilitate the integration of theoretical knowledge with practical experience for interns. The exposure gained during the internship period is particularly valuable, as it enables interns to apply their knowledge directly in the workplace.

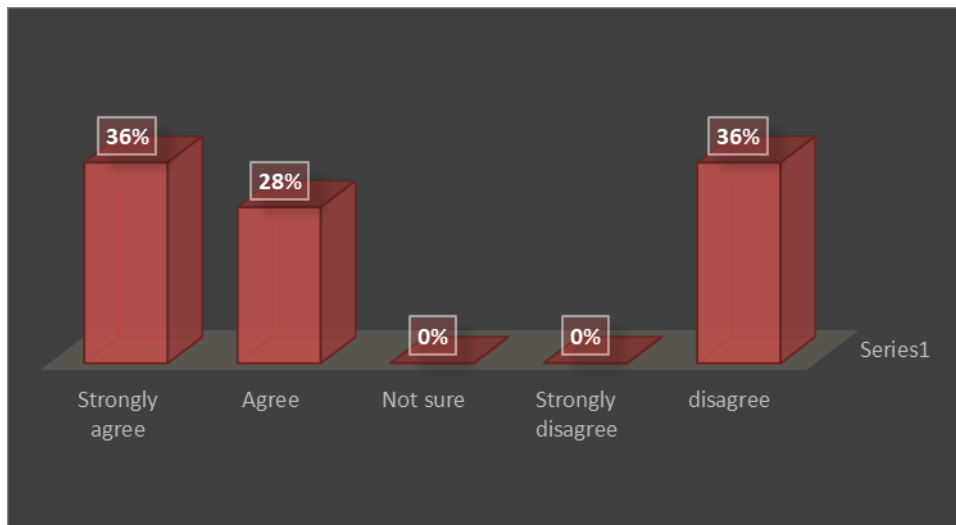


Figure 7: Internship as a link between theory and practice

According to Mabeba (2019), as cited in Pietersen and Malatjie (2022), it is crucial for graduates to have the opportunity to apply their theoretical knowledge in practical, real-world scenarios. Work experience is also highly valued by potential employers in both the private and public sectors. The internship programme serves as a response to provide recent graduates with expanded access to job opportunities and business prospects.

The results indicate that 36% of participants strongly agreed and 36% disagreed with the idea, while 28% agreed with it. None of the participants were unsure or strongly disagreed.

These findings suggest that most participants worked as interns to bridge the gap between theory and practice. This opportunity is significant, as some graduates may leave tertiary institutions without a clear understanding of the expectations and demands of the labour market.

The contribution of internship programme to preparing interns for the work environment

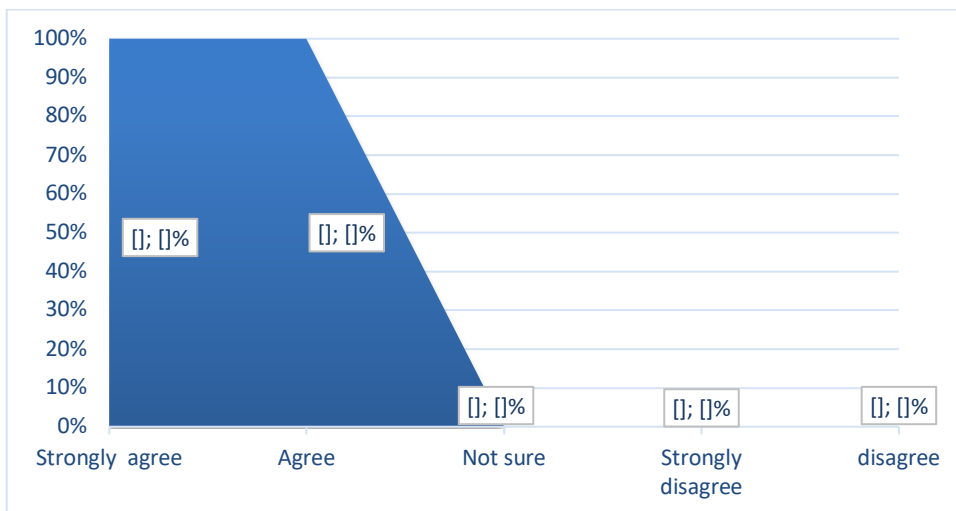


Figure 8: Internship prepares for work environment.

The researcher inquired whether participants chose to work as interns with the expectation that the internship programme would prepare them for the corporate world.

The majority (55%) of participants agreed, and a minority (45%) strongly agreed that they decided to work as interns with the hope that the internship programme would prepare them for the corporate world. None of the participants were unsure or strongly disagreed or disagreed with this perception.

Based on these findings, it can be concluded that participants chose to undertake the internship programme with the intention of preparing themselves for the future work environment. This is significant as it provides graduates with the opportunity to gain practical insights into the workings of public institutions and better understand what to expect in their professional careers.

Opportunities for interns in public institutions

According to Trotskovy and Sabag (2010), the internship programme provides graduates with the opportunity to recognise the distinctions between the traditional learning process in academia and the practical design process in the work environment. Additionally, interns' benefit from exposure to the latest innovations in the Fourth Industrial Revolution (4IR) industry through their workplace experiences.

The primary goal of the internship programme is to provide interns with the experience and skills that employers value. To further enhance professional and personal development, mentoring and coaching should be incorporated into the programme (Pietersen & Malatjie, 2022).

Participants highlighted that interns may have increased chances of securing permanent positions if internal job openings are advertised while they are still working in their host departments. This preference for internal employees by the National Education, Health, and Allied Workers Union (NEHAWU) can work in favour of interns.

Moreover, interns can acquire various skills, including computer literacy, administration, and the ability to perform under pressure.

One respondent said: *“The internship programme gives interns exposure so that they can get work experience and familiarises them with relevant experience according to their qualifications. Some interns have certain qualifications, but they don't know what kind of jobs they must do.”*

In addition to the benefits mentioned above, interns can also gain valuable information from public institutions for their personal development. Some interns can learn about the "Barriers to Entry into the Public Service," which provides them with insights into the challenges and requirements of working in the public sector.

Interns working at archives may have the chance to participate in outreach programmes with secondary schools and municipalities, allowing them to expand their network and engage with different stakeholders.

Based on the findings provided, it is evident that there are numerous opportunities available for graduates who work as interns.

The challenges about internships

According to Stasz and Brewer (1998), there are challenges associated with internship programmes, including financial constraints that may hinder public institutions from hiring interns due to limited resources. Additionally, graduate interns may face disadvantages regarding leave provisions as they do not always align with the resolutions of the Public Service Collective Bargaining Council (Motene, 2017).

However, in the study conducted on the selected government departments, some respondents reported that there have been no challenges related to the internship programme throughout the past four financial years.

One of the participants claimed: *“I have never worked with a stubborn intern. They had always performed their duties as expected. None of them was lazy.”*

Another participant argued: *“As people we differ, some interns do not like initiating. They are reactive instead of being proactive. They come with school mentality into government departments.”*

Some participants highlighted specific challenges related to the internship programme. One challenge mentioned was the extension of the internship duration to 24 months, initiated by the Department of Public Service and Administration (DPSA). This posed a difficulty for interns who had already signed 12-month contracts, leading to the need for a memorandum to express their complaints. One of the selected departments faced the challenge of addressing this matter as they were unable to extend the contracts to 24 months due to the timing of the directive.

Additionally, poor mentor attendance in meetings was identified as another challenge. Mentors often claimed to be busy during scheduled meetings, leading to the need for one-on-one meetings or mentors only attending when interns faced specific challenges.

It is worth noting that while some participants outlined these challenges, others claimed not to have experienced any challenges related to the internship programme. Furthermore, it was mentioned that in one of the selected government departments, interns started their work on July 1, 2019.

4. CONCLUSION

The study successfully explored the challenges and opportunities associated with the internship programme using primary data. Several opportunities were identified, including networking, bridging theory with practice, and the potential for interns to secure permanent positions if internal job openings are advertised while they are still interning. Interns also can acquire various skills such as computer literacy, administration, and coping under pressure. The internship programme provides valuable exposure and work experience, helping interns identify suitable career paths based on their qualifications.

On the negative side, mentors highlighted that some interns take time to understand the work ethic of public institutions, indicating a potential challenge.

However, the study had limitations. It focused on only three selected government departments in Limpopo Province and did not reach the intended target sample size of 140 participants. Instead, the study included 79 participants who shared their perceptions. Suggestions for future research include expanding the sample size to gain a broader understanding of the opportunities and challenges arising from internship programmes.

REFERENCES

Baert, S., Neyt, B., Siedler, T., Tobback, I., & Verhaest, D. (2021). Student internships and employment opportunities after graduation: A field experiment. *Economics of Education Review*, 83, 102141. <https://doi.org/10.1016/j.econedurev.2021.102141>.

Burns, C., & Chopra, S. (2017). A meta-analysis of the effect of industry engagement on student learning in undergraduate programs. *Journal of Technology, Management, and Applied Engineering*, 33 (1), 1 – 10.

Chauhan, D.S. (1978). Education for Public service: Managing Internship Programs. *State and Local Government Review*, 10(3),100 - 105.

Clinton, J. (2003). The role of internships in attracting quality talent to the public sector. *Public Manager*, 32 (1),45.

Collegiate Employment Research Institute. (2012). Internships and co-ops 2012 talent development outlook: CEI Research Brief 2012.3. Michigan State University. https://ceri.msu.edu/_assets/pdfs/Internships/CERI-Research-Brief-2012-Internships-Coops.pdf.

Cunningham, W. G. (2007). A handbook for educational leadership interns: A rite of passage. Pearson Education, Inc.

Cunningham, W. G., & Sherman, W. H. (2008). Effective internships: Building bridges between theory and practice. *The Educational Forum*, 72(4), 308–318. <https://doi.org/10.1080/00131720802361936>

Delpont, C.S.L., & Fouche, C.B. (2011). *Mixed methods research*. Edited by De Vos, AS. Strydom, H. Fouche, CB, Delpont, CSL. Research at Grassroots: for the social sciences and human service professions (4th edition). Pretoria: Van Schaik Publishers, 433-448.

Deschaine, M. E., & Jankens, B. P. (2017). Creating successful and sustainable educational administrative internship experiences. *Higher Education Skills and Work-based Learning*, 7, 5–20.

Di Pietro, G. (2022). International internships and skill development: A systematic review. *Review of Education*, 10, e3363. <https://doi.org/10.1002/rev3.3363>.

-
- Dodson, R. L. (2015). What makes them the best? An analysis of the relationship between state education quality and principal preparation practices. *International Journal of Education Policy and Leadership*, 10(7), n7.
- Drewery, D., Church, D., Pretti, J., & Nevison, C. (2019). Testing a model of co-op students' conversion intentions. *Canadian Journal of Career Development*, 18(1), 34-44.
- Elfil, M., & Negida, A. (2017). Sampling methods in clinical research: An educational review. *Emergency*, 5 (1),1-3.
- Figueiredo-Brown, R., Ringler, M. C., & James, M. (2015). Strengthening a principal preparation internship by focusing on diversity issues. *International Journal of Educational Leadership Preparation*, 10(2), 36-52.
- Green, R., & Farazmand, F. (2012). Experiential Learning: the internship and live-case study relationship. *Business Education and Accreditation*, 4(1), 13-23.
- Hackmann, D. G., Russell, F. S., & Elliott, R. J. (1999). Making administrative internships meaningful. *Planning and changing*, 30(1), 2-14.
- Hurst, J. L., Good, L. K., & Gardner, P. (2012). Conversion intentions of interns: What are the motivating factors? *Education + Training*, 54(6), 504-522. <http://doi.org/10.1108/00400911211254280>.
- Jones, E. (2013). Internationalization and employability: The role of intercultural experiences in the development of transferrable skills. *Public Money & Management*, 33(2), 95-104. <https://doi.org/10.1080/09540962.2013.763416>.
- Kappler-Hewitt, K., Von Dohlen, H., Weiler, J., Fusarelli, B., & Zwadyk, B. (2020). Architecture of innovative internship coaching models within US principal preparation programs. *International Journal of Mentoring and Coaching in Education*, 9, 187-204.
- Koma, N. (2010). *An implementation analysis of the Graduate Internship programme of the South African Department of Public Service and Administration*. Dissertation for the Degree of Master of Social science. Pietermaritzburg: University of Kwazulu – Natal.
- Koyana, S. & Mason, R.B. (2018). Transformation in the wholesale and retail sector in South Africa: the role of internships. *Journal of Business and Retail Management Research (JBRMR)*, 12(4): 187-199.
- Mabeba, S.J. (2019). The impact of Internship Programmes on Skills Development in the South African Public Institutions: Are Internships still relevant? In: *Proceedings of the 2019 4th Annual International Conference on Public Administration and Development Alternatives*, July 03-05, 2019, Johannesburg, South Africa. Available from: <http://ulspace.ul.ac.za/handle/10386/2688> [Accessed: 08/04/2023].
-

-
- Mabeba, S.J. (2021). The Impact of Internship Programme on Skills Development in Selected Government Departments in Limpopo Province. Dissertation for the Degree Master of Administration (Public Administration). Turfloop Campus. University of Limpopo.
- Mabiza, J., Mahlalela, P. & Mbohwa, C. (2017). Reducing the unemployment rate in South Africa through the establishment of Graduate Internship Programmes. In: Proceedings of the 2017 IMECS conference of Engineers and Computer Scientists, March 15-17, 2017, Hong Kong. Available from: <http://www.iaeng.org/publication/IMECS2017/> [Accessed: 07/04/2023].
- Mamokhere, J., & Meyer, D.F. (2022). Including the excluded in the integrated development planning process for improved community participation. *INTERNATIONAL Journal of Research In Business And Social Science* 11(4), 286-299.
- Motene, K.J. (2017). Employability of graduates on the public service internship programme: the case of the Limpopo Department of Economic Development, Environment & Tourism (LEDET), South Africa. Dissertation for the Degree of Master of Public Administration. Turfloop Graduate School of Leadership: University of Limpopo.
- Nicks, B., Thibodeaux, T., & Martin, G. (2018). Student perceptions of enhancing the internship experience for online principal preparation programs. *School Leadership Review*, 13(1), 22–37.
- NYDA. (2014). Statement by the National Youth Development Agency on effectiveness of internship programmes. Available from: <https://www.polity.org.za/print-version/nyda-statement-by-the-nationalyouth-development-agency-on-effectiveness-of-internship-programmes-02042014-2014-04-02> [Accessed: 07/04/2023].
- Ogden, A. C., Streitwieser, B., & Van Mol, C. (2020). *Education abroad: Bridging scholarship and practice*. Routledge.
- Oluwajodu, F., Blaauw, D., Greyling, L., & Kleynhans, E.P.J. (2015). Graduate unemployment in South Africa: perspectives from the Banking Sector. *SA Journal of Human Resource Management*. 13(1). DOI: 10.4102/sajhrm.v13i1.6.
- Omar, A. (2014). Sample size estimation and sampling techniques for selecting a representative sample. *Journal of Health Specialties*, 2(4),142–147.
- Pietersen, J.M. & Malatjie, I. (2022). Efficacy of the internship programme in the South African public service with a particular focus on the National School of Government. *Journal for New Generation Sciences*: 20 (1), 14-22.
- Rowden, R. W., & Conine, C. T. (2005). The impact of workplace learning on job satisfaction in small US commercial banks. *Journal of Workplace Learning*, 17(4), 215-230.
-

- Rowe, A., Mackaway, J., & Winchester-Seeto, T. (2012). “But I thought you were that” – Clarifying the role of the host supervisor in experienced-based learning. *Asia-Pacific Journal of Cooperative Education*, 13(2), 115-134.
- Salkind, N.J. (2012). *Exploring Research*. (6th Edition). Boston: Pearson.
- Shorten, A., & Moorley, C. (2014). Selecting the sample. *Evidence Based Nursing*, 17(2), 32–33.
- Silva, P., Lopes, B., Costa, M., Melo, A., Dias, G., Brito, E., & Seabra, D. (2016). The million-dollar question: Can internships boost employment? *Studies in Higher Education*, 72, 703–721. <https://doi.org/10.1080/03075079.2016.1144181>
- Simons, L., Fehr, L. & Blank, N. (2012). Lessons Learned from Experiential Learning: What Do Students Learn from a Practicum/Internship? *International Journal of Teaching and Learning in Higher Education*, 24(3), 325–334.
- Smith, C., & Worsfold, K. (2014). WIL curriculum design and student learning: a structural model of their effects on student satisfaction. *Studies in Higher Education*, 39 (6), 1070–1084.
- StatsSA. (2020). *Quarterly Labour Force Survey, Quarter 4, 2020*. Pretoria: Statistics South Africa.
- StatsSA. (2021). *Quarterly Labour Force Survey, Quarter 3, 2021*. Pretoria: Statistics South Africa.
- Willis, J. (2018). Paid Internships are the key to solving SA’s youth crisis. *City Press*, May 1. Available from: <https://www.news24.com> [Accessed: 07/04/2023].

SSIRC 2023-113**EFFECT OF PROCEDURAL JUSTICE ON THE RELATIONSHIP BETWEEN THE REWARDS SYSTEM AND INTENTION TO QUIT IN A SOUTH AFRICAN FINANCIAL SECTOR****C. Mabaso**

University of Johannesburg, South Africa.

L. Ratau

University of Johannesburg, South Africa.

ABSTRACT

Organisations with ineffective employee retention strategies will harm productivity as workloads will increase for employees who remain at the company owing to losing skilled workers. To prevent the loss of skilled workers and low productivity, policy and procedure fairness development is crucial towards understanding factors that lead to intentions to quit; hence, ensuring the retention of talented workers. Previous studies on the influence of procedural justice and rewards systems on intention to quit suggest that fair treatment, respect, dignity, and psychological payment decrease employees' intention to quit. However, there seems to be a lack of research on the constructs studied. This study examines the impact of procedural fairness and reward systems on the intention to quit in a South African banking organisation. The study used a non-experimental quantitative research approach with a cross-sectional design on a convenience sample of (N=454) employees who work in the banking sector. It used standard multiple regression analysis to predict the intention to quit through procedural justice and reward systems. The results show that procedural justice and reward systems related positively and significantly to the intention to quit. In addition, procedural justice and reward systems influenced the intention to quit. An employer organisation that promotes developing retention strategies such as fairness and rewards will encourage employees to understand the respective policies and procedures, leading to rewards, commitment, and contributions to achieve high productivity levels. The study's findings provide a valuable contribution to debates on the impact of fairness and rewards on employee retention, while highlighting the practical implications for occupational psychologists and HR professionals.

KEYWORDS: organisational justice, procedural justice, reward systems, intention to quit, banking sector

1. INTRODUCTION

Ineffective retention strategies and the high turnover seen in organisations nationwide have raised concerns in academia and practice (Kwok, 2022). Statistics from larger organisations show that high turnover rates affect overall performance and increase the stress levels and workloads of the remaining employees (Ahmed & Ramzan, 2013; Pandey, 2020). To avoid such disruptions, organisations develop policies and procedures, strive for fairness, and seek to understand factors

that drive the intention to quit to ensure that companies retain their talented employees (Mulang, 2022). A growing number of studies confirm that procedural justice or fairness and rewards play a critical role to reduce turnover intention (Rusbadol et al., 2021). Procedural justice influences the way in which decisions are made and strategies are determined (Asmussen et al., 2019). Procedural justice is a dimension of organisational justice that relates to the way decisions are made about policies and procedures, ensuring that employees are treated with dignity, respect, and sensitivity in some way and throughout (Colquitt et al., 2013). The reward system refers to all monetary, non-monetary and psychological payments that an employer gives to its members in return for good work (Tarigan et al., 2022). Previous studies suggest that fairness promotes reward, satisfaction, and performance, while preventing negative factors such as turnover intention and absenteeism (Mitonga-Monga et al., 2023). However, there seems to be a lack of research, which examines the moderating effect of procedural justice on the relationship between the reward system and intention to quit in a South African banking organisation.

2. RESEARCH CONTEXT

South African financial sector

The financial services sector is at the heart of the South African economy, affecting the lives of every citizen, and enabling individuals to engage in economic transactions daily. The South African financial sector faces numerous challenges, one of which is turnover intention, as employees who work in financial organisations show an increased intention to quit (Van der Merwe et al., 2020). Modiba and Kekwaletswa (2020) assert that the South African banking sector needs to prioritise employee retention to improve performance, productivity, and customer service. Smith et al.'s (2019) study on the South African financial services industry shows that employees' perceptions of procedural justice in the South African banking sector can be influenced by factors such as ethical behaviour, transparency, and trust in management. By ensuring transparency, consistency and customer protection, the financial banking sector can retain existing employees, which will contribute to the financial banking sector's growth in South Africa.

3. THEORETICAL PERSPECTIVES AND HYPOTHESES

3.1. Rewards system

The most well-known theory about rewards is the reinforcement theory, which states that behaviours are strengthened by positive reinforcement such as rewards, whilst these are weakened by negative reinforcement such as punishments (Ismail, 2017). According to the reinforcement theory, rewards increase the likelihood that a behaviour will be repeated in the future (Van den Broeck et al., 2017). A prominent theory is the expectancy theory, which states that people are motivated to perform when they believe that their efforts will lead to a desired outcome such as a reward (Thangaswamy & Thiyagaraj, 2017). Calvin (2017) posits that the expectancy theory emphasises the importance of perceived links between effort, performance, and reward. In this study, the expectancy theory suggests that rewards should be linked to specific performance goals and employees should clearly understand what they need to do to earn these rewards (Pratolo et al., 2020). Another theory related to the reward system is the equity theory, developed by Adams

(1965), which proposes that employees compare their inputs such as effort, time, skills, and outputs such as rewards with those of their peers to assess whether they are being treated equally (Francis et al., 2020). In this study, the equity theory holds that a reward system should be designed in such a way that employees perceive the distribution of rewards as being fair and equitable (Ria., 2019). The above theories all provide guidance for organisations to create a reward system that is fair, transparent, balanced, and challenging, whilst motivating employees to perform at their best.

3.2 Intention to quit.

Intention to quit is an important concept in the human resource management field that has been studied from various theoretical perspectives (Madigan & Kim, 2021). The social exchange theory, developed by Homan (1958), helps to explain factors that influence workers' decisions to leave an organisation. This theory states that workers build relationships with their respective organisations based on a mutual exchange of resources such as time, labour and loyalty (Cross & Dundon, 2019). Employees who feel that their organisation is not fulfilling its part of the exchange, are likely to develop the intention to quit (Redondo, 2021). Another theory related to intention to quit is the equity theory, developed by Adams (1965), which assumes that employees compare elements of their performance such as effort, time, pay and recognition with that of their colleagues. Thus, when workers feel that their performance and results are not equal to those of their colleagues, they may develop the intention to quit (Francis et al., 2020).

3.3 Procedural justice

Procedural justice focuses on the fairness of procedures used in decision-making processes and the impact that these procedures might have on employees' perceptions of their treatment in organisations (Kim & Beehr, 2020). Employees tend to perceive an outcome to be fair and equitable if they believe that the procedures that were used to achieve the outcome are fair and unbiased (Lee et al., 2029). The equity theory, developed by Adams (1965), helps to explain factors that influence employees' perceptions of the fairness of organisational procedures. Employees who believe that the processes and procedures that an organisation uses are fair, transparent, and equitable are likely to feel that the organisation treats them fairly compared to their colleagues (Buttner & Lowe, 2017). Another theory related to procedural justice is the attribution theory, advanced by Heider (1958), which states that employees make judgements about the causes of events, based on information to which they have access. Employees who perceive that organizational procedures are fair and clear, are more inclined to attribute their own efforts to personal bias or favouritism (Hewett, 2019).

3.4 Rewards system and intention to quit.

A rewards system is a crucial aspect of any organisation's human resource management strategy as it can motivate employees to achieve their goals (Al-Khaled & Fenn, 2020). Stone and Gavin (2020) state that a rewards system that is not perceived to be fair or appropriate can lead to negative consequences in the organisation such as the intention to quit. Conversely, a rewards system that is perceived to be fair and appropriate can have positive effects on employee retention and may reduce the intention to quit (Verma & Kesari, 2020). Ghani (2022) argues that the relationship

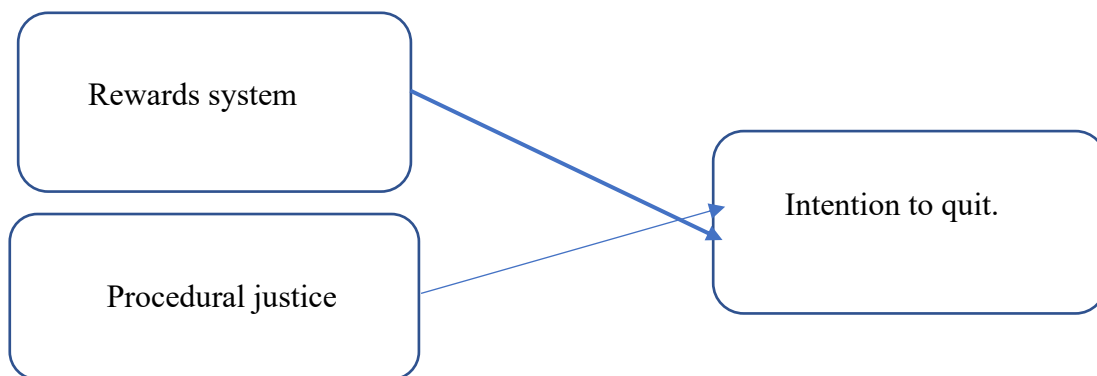
between a rewards system and the intention to quit is influenced by several factors, including fairness and transparency of the system, the type of rewards that the organisation offers, and employees' perceptions of their contributions and the value of their work. If employees judge that their contributions are not adequately rewarded, they may feel undervalued and not motivated to continue working for the organisation (Dunne, 2022). Conversely, when employees feel that their efforts and contributions are recognised and appropriately rewarded, they are more likely to be satisfied with their work and stay with the company longer (Asaari et al., 2019). Alemayehu and Woldemariam (2020) postulate that a reward system that is determined to be fair, transparent, and appropriate, offering a variety of rewards, can influence employee retention positively and reduce the intention to quit. Koo et al. (2020) argue that the type of rewards that the organisation offers impacts the relationship between the reward system and intention to quit. Monetary rewards such as bonuses and salary increase motivate employees in the short term but may not be sustainable in the long term (Rajapaksa, 2019). Non-monetary rewards such as recognition, opportunities for promotion and work-life balance play an important role in motivating and retaining employees, which may lead to a lower intention to quit (Mbeah, 2021). Harden, Boakye and Ryan (2018) found that the reward system influences the intention to quit through perceptions of fairness. This means that employees who perceive that other employees receive special treatment, and that the criteria for rewards are not transparent, are more likely to perceive that their efforts are not recognised and rewarded, which may lead to a higher intention to quit. Based on these previous studies, it can be assumed that the reward system may influence the intention to leave the organisation. Therefore, companies should implement a fair, transparent, and appropriate reward system to reduce costs associated with the intention to quit.

3.5 Procedural justice and intention to quit.

Procedural justice refers to the perception that the process that is used to make decisions regarding organisational outcomes is fair and equitable (Lambert et al., 2020). Al-Kilani (2017) states that there is a significant positive relationship between procedural justice and intention to quit. A study conducted by Nazarian et al. (2022) also found that procedural justice impacts employees' attitudes in the organisation, including their intention to leave an organisation. This means that an employee who determines that the processes, procedures, and policies that the organisation uses are fair and impartial, will feel comfortable and have a lower intention to quit. Conversely, employees who believe that the processes, procedures, and policies that the organisation uses to make decisions within the organisation are fair, impartial, and reasonable, are less likely to leave. Furthermore, Newman et al. (2020) claim that employees who judge that the decision-making process is fair and respectful, will feel respected and valued by their organisation, which in turn may reduce their intention to quit. A study conducted by Mengstie (2020) supports the assumption that procedural justice is an important predictor of intention to quit, which means that companies that prioritise fairness and transparency in their decision-making processes, are highly likely to retain their employees. Based on these previous findings, it can be assumed that procedural justice influences the intention to quit positively.

3.6 Procedural justice and reward system as predictors

Procedural justice refers to how an organisation makes decisions, enforces rules, awards promotions, and distributes rewards (Graham, 2019). Conversely, the reward system refers to the approach that the organisation uses to compensate employees for their work, including salary, benefits, and bonuses, while intention to leave implies the intention of employees to leave their current organisation (Russen, 2021; Boateng, 2019; Krishnan, 2020). Adeoye (2019) explains that a fair organisational reward system is one that employees perceive to be appropriate and impartial. Employees who determine that the reward system is unfair tend to leave their current organisation (Chiat & Panatik, 2019). Similarly, Jansen and Hlongwane (2019) found that employees who perceive the organisation's reward system to be unfair and biased, are more frustrated and consider leaving. Conversely, when employees feel that the processes and procedures are fair and unbiased, they are less likely to leave the organisation, even if they do not receive the rewards that they had hoped for (Newman et al., 2020). In addition, Mdhlalose (2022) avers that employees are more likely to accept the outcomes of the reward system if they believe that the organisation's procedures to regulate the rewards are fair, even though the rewards that they receive are not favourable. This suggests that procedural justice may function as a moderator of the relationship between an organisation's reward system and intention to quit.



4. RESEARCH METHODOLOGY

This study used a quantitative research approach, using a cross-sectional design to collect data. A structured questionnaire was distributed to employees in South Africa's financial banking sector. A sample of 454 employees was selected, using a stratified sampling method from the financial banking sector in the country, including 250 females (55,1%) and 204 males (44,9%). In terms of age, most of the participants were in the age category of 25-29 (31,3%), followed by those in the 18-24 (24,7%) age category. The smallest group comprised the 50–59-year-olds, totalling seven participants (1.5%) participants. Eight (1.8%) participants chose not to reveal their age. In terms of education level, most of the participants, namely 163 (35.9%), have passed matric, followed by those with a diploma qualification at 131 (28.9%) participants, and those with a bachelor's degree, comprising 130 (28.6%) participants. A total of 29 (6.4%) participants holds a postgraduate qualification. This finding is illustrated in Table 1 below.

Table 1: Demographic profile of the sample (N = 454)

| Variable | Frequency | % |
|----------------------------|-----------|------|
| Gender | | |
| Male | 204 | 44,9 |
| Female | 250 | 55,1 |
| Age (years) | | |
| 18–24 | 112 | 24,7 |
| 25–29 | 142 | 31,3 |
| 30–35 | 78 | 17,2 |
| 36–40 | 53 | 11,7 |
| 41–49 | 54 | 11,9 |
| 50–59 | 7 | 1,5 |
| Prefer not to say | 8 | 1,8 |
| Education level | | |
| Matric | 163 | 35,9 |
| Diploma | 131 | 28,9 |
| Bachelor's degree | 130 | 28,6 |
| Postgraduate qualification | 29 | 6,4 |

The study used the Statistical Package for Social Sciences (SPSS) Version 28 to analyse the collected data, and descriptive statistics to describe the data in summary form. Pearson's correlation analysis was conducted to investigate the relationship between procedural justice, the rewards system, and the intention to quit. Exploratory factor analysis (EFA) was also performed to explore the scales' factor structure and the study's reliability. Multiple regression analysis was executed to test the moderating effect of procedural justice on the relationship between the reward system and the intention to quit.

5. RESULTS AND DISCUSSION

5.1 Confirmatory factor analysis

Table 2 below shows the confirmatory factor analysis of the study's constructs. Principal component analysis and varimax rotation were used to determine the study's factorial structure and reliability. As shown in Table 2, the KMO index scores were 0.850 for a rewards system, 0.815 for procedural justice, and 0.852 for the intention to quit. Table 2 illustrates that all eigenvalues for the constructs were above > 1 , while the factor loadings were above 0.60 (Hair et al., 2019). Table 2 shows that the Cronbach Alpha internal consistency coefficients for all the constructs were between 0.88 and 0.92.

5.2 Descriptive statistics and correlations

Table 2 below presents the descriptive statistics of the study's variables, where the mean scores ranged between $M = 5.30$ and $M = 5.64$. Participants scored high mean scores for the reward system

(M=5.64; SD =1.10), followed by intention to quit (M=5.51; SD =1.16), while the lowest mean score was recorded for procedural justice variables (M=5.30; SD =1.20).

5.3 Relating the reward system, procedural justice, and intention to quit.

Table 2 indicates that the reward system related positively with procedural justice (r = 0.78; large effect size, p ≤ 0.05); the reward system related positively with the intention to quit (r = 0.77; large effect size, p ≤ 0.05); and procedural justice related positively with the intention to quit (r = 0.79; large effect size, p ≤ 0.05).

Table 2: Exploratory factor analysis, Cronbach’s alpha coefficients, descriptive statistics, and correlation between rewards system, intention to quit, and procedural justice (N=469)

| Items | Components | | | Cronbach alpha coefficients α | Description statistics | | Correlations | | |
|---------------|------------|--------|--------|---|------------------------|------|--------------|---------|---------|
| | RS (1) | PJ (2) | IQ (3) | | M | SD | 1 | 2 | 3 |
| RS1 | .914 | | | 0.92 | 5.64 | 1.10 | 1 | 0.78*** | 0.77*** |
| RS2 | .911 | | | | | | | | |
| RS3 | .893 | | | | | | | | |
| RS3 | .882 | | | | | | | | |
| PJ1 | | 0.877 | | 0.88 | 5.30 | 1.20 | 1 | | 0.79*** |
| PJ2 | | 0.858 | | | | | | | |
| PJ3 | | 0.854 | | | | | | | |
| PJ4 | | 0.852 | | | | | | | |
| IQ1 | | | 0.894 | 0.90 | 5.51 | 1.16 | | | 1 |
| IQ2 | | | 0.891 | | | | | | |
| IQ3 | | | 0.885 | | | | | | |
| IQ4 | | | 0.879 | | | | | | |
| Eigenvalue | 3.240 | 2.962 | 3.150 | | | | | | |
| % of variance | 81.01 | 74.05 | 78.75 | | | | | | |
| Cumulative % | 81.01 | 74.05 | 78.75 | | | | | | |

RS, reward system; PJ, procedural justice; IQ, intention to quit; M, mean; SD, standard deviations.

5.5 Regression analyses

Effect on intention to quit.

As indicated in Table 3 below, multiple regression proved to be statistically significant (Fp < 0.05). The regression model contributed to 69% (R2= 0.34) of the variance to explain the intention to quit. As shown in Table 2, the reward system (β = 0.48; p=0.001) and procedural justice (β = 0.41; p=0.001) acted as significant predictors of intention to quit, with the reward system making the

largest contribution to explaining the variance in intention to quit. Hypothesis 2 is, therefore, accepted.

Table 3: Standardized regression: Reward system and procedural justice as predictors of intention to quit (N=469)

| | Model 1 | | |
|---------------------|------------------------|------|---------|
| | Intention to quit | | |
| | B | B | P-value |
| (Constant) | 0.61 | | 0.001 |
| Reward system | 0.50 | 0.48 | 0.001 |
| Procedural justice | 0.39 | 0.41 | 0.001 |
| F (df; mean square) | (2;211.03) = 513.37*** | | |
| R | 0.70 | | |
| Adjusted R2 | 0.69+++ | | |

Note: β, standardised regression coefficient; B, unstandardised regression coefficient; df, degrees of freedom.

5.6 Discussion

The study’s main objective was to investigate the moderating effect of procedural justice on the relationship between the reward system and the intention to quit within a South African financial sector. The study’s sample was divided into three categories, namely gender, age, and education level. This sample comprised 55,1% females and 44,9% males, implying that South Africa’s financial banking sector is making progress in respect of achieving gender diversity and inclusivity in the workplace. Most of the participants were in the 25-29 (31,3%) age category, followed by those in the 18-24 (24,7%) year-old category. This suggests that the financial banking sector in South Africa has young employees. The smallest group of participants comprised employees who were between 50 and 59 (1,5%) years of age, which may mean that the financial banking sector does not maintain employees who are close to retirement age, or that it has fewer opportunities for experienced employees in senior positions. The results reveal that the largest group of participants had a matric (35,9%) followed by a diploma (28,9%) and a bachelor's degree (28, 6%). This suggests that the country’s financial banking sector hires employees who have diverse educational backgrounds. Nevertheless, the small proportion of participants with a postgraduate qualification (6,4%) could suggest that the financial banking sector may not provide enough opportunities for continuing education.

The results show that procedural justice and the rewards system related positively and significantly to employees’ intention to quit. Furthermore, the results prove that procedural justice and rewards systems influence employees’ intention to quit. These findings are consistent with those of Jansen and Hlongwane (2019), indicating that positive perceptions of fairness and rewards systems are important for employees (Newman et al., 2020). The results suggest that procedural justice and

rewards systems relate positively to the intention to quit, indicating that employees who determine that their employer has clear procedures and is fair to them, are likely to stay or renew their membership. These findings are consistent with those of Verma and Kesari (2020), Ghani (2022), and Nazarian et al. (2022), who report that procedural justice and rewards influence employees' attitudes and behaviour. The multiple regression analysis results indicate that procedural justice and rewards systems positively and significantly influence employees' intention to quit. The results show that the rewards system contributed more to the differences in each employee's intention to quit. This can be explained by the fact that employees who believe that the employer organisation has positive rewards system policies and fair procedures, are likely to stay with the employer organisation, which means that they are likely to reduce their intention to leave the employer. These findings are consistent with those of Adeoye (2019), Boateng (2019), Krishnan (2020) and Russ (2021), who found that rewards systems and procedural justice predict employees' intention to quit.

5.7 Implication for human resource practices

These findings contribute to the field of human resource management in the financial sector, particularly in the South African context. Human resource practices should focus on creating and maintaining a fair and transparent reward system that is communicated clearly to employees. These insights can be useful for organisations to develop strategies to improve employee retention and reduce turnover rates. It is important to ensure that employees perceive the reward system to be fair, as this can reduce the likelihood that they will want to leave their jobs. In other words, HR managers should emphasise the importance of procedural justice in organisations to further strengthen the relationship between the rewards system and employee retention. By establishing clear and transparent procedures for decision-making, employees are more likely to perceive the rewards system as being fair and equitable, which can lead to a lower intention to quit.

5.8 Limitations and recommendations for future research

The methodology that this study used affected the participants' representativeness; hence, the findings cannot be generalized to the entire population of employees in South Africa's financial banking sector but should rather be viewed as recommendations. This study used a non-experimental quantitative research approach with a cross-sectional design on a convenience sample. Another limitation was that data was collected from selected banks in South Africa; therefore, under-representing employees in other financial banking sectors. Future research on this topic should use a larger sample to strengthen the power of the research outcomes. More financial banking sectors in South Africa should be studied to understand the effect of procedural justice on the relationship between the rewards system and intention to quit.

7. CONCLUSION

Procedural justice and rewards systems were found to influence workers' intention to quit in a selected financial sector in South Africa. A strong and positive relationship was confirmed between procedural justice, the rewards system, and intention to quit. Consequently, procedural justice and the rewards system emerge as key factors, which reduce workers' intention to quit

within the country's financial sector. In conclusion, this study highlights the importance of implementing fair and transparent policies and procedures in South Africa's financial sector's rewards system and decision-making processes to reduce the intention to quit.

REFERENCES

- Adeoye, A. O. (2019). Compensation management and employee motivation in the insurance sector: evidence from Nigeria. *Facta Universitatis-Economics and Organization*, 16(1), 31-47.
- Ahmed, A., & Ramzan, M. (2013). Effects of job stress on employees' job performance a study on the banking sector of Pakistan. *IOSR Journal of Business and Management*, 11(6), 61-68.
- Alemayehu, B. Z., & Woldemariam, G. K. (2020). Academic staff flight from Ethiopian public universities: Causes and possible solutions. *Higher Education Quarterly*, 74(4), 497-515.
- Al-Khaled, A. A. S., & Fenn, C. J. (2020). The impact of strategic human resource management practices on organizational performance. *BERJAYA Journal of Services & Management*, 14, 53-60.
- Al-Kilani, M. H. (2017). The influence of organizational justice on intention to leave: Examining the mediating role of organizational commitment and job satisfaction. *Journal of Management and Strategy*, 8(1), 18-27.
- Asaari, M. H. A. H., Desa, N. M., & Subramaniam, L. (2019). Influence of salary, promotion, and recognition toward work motivation among government trade agency employees. *International Journal of Business and Management*, 14(4), 48-59.
- Asmussen, C. G., Foss, N. J., & Nell, P. C. (2019). The role of procedural justice for global strategy and subsidiary initiatives. *Global Strategy Journal*, 9(4), 527-554.
- Boateng, F. D., & Hsieh, M. L. (2019). Explaining job satisfaction and commitment among prison officers: The role of organizational justice. *The Prison Journal*, 99(2), 172-193.
- Buttner, E. H., & Lowe, K. B. (2017). Addressing internal stakeholders' concerns: The interactive effect of perceived pay equity and diversity climate on turnover intentions. *Journal of Business Ethics*, 143, 621-633.
- Calvin, O. Y. (2017). The impact of remuneration on employees' performance (a study of Abdul Gusau Polytechnic, Talata-Mafara and state college of education Maru, Zamfara State). *Arabian Journal of Business and management review (Nigerian chapter)*, 4(2), 34-43.
- Chiat, L. C., & Panatik, S. A. (2019). Perceptions of employee turnover intention by Herzberg's motivation-hygiene theory: A systematic literature review. *Journal of Research in Psychology*, 1(2), 10-15.

Cross, C., & Dundon, T. (2019). Social exchange theory, employment relations and human resource management. In *Elgar introduction to theories of human resources and employment relations* (pp. 264-279). Edward Elgar Publishing.

Dunne, A. (2022). *Do different generations have different reward preferences? A comparative study analysing the motivators and reward preferences of Gen Z in comparison to Gen Y* (Doctoral dissertation, Dublin, National College of Ireland).

Francis, F., Zirra, C. T. O., & Mambula, C. J. (2020). Reward system as a strategy to enhance employees' performance in an organization. *Archives of Business Review–Vol, 8*(6).

Ghani, B., Zada, M., Memon, K. R., Ullah, R., Khattak, A., Han, H., & Araya-Castillo, L. (2022). Challenges and strategies for employee retention in the hospitality industry: A review. *Sustainability, 14*(5), 2885.

Graham, A. (2019). *Measuring procedural justice: A case study in criminometrics* (Doctoral dissertation, University of Cincinnati).

Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.

Harden, G., Boakye, K. G., & Ryan, S. (2018). Turnover intention of technology professionals: A social exchange theory perspective. *Journal of Computer Information Systems, 58*(4), 291-300.

Hewett, R., Shantz, A., & Mundy, J. (2019). Information, beliefs, and motivation: The antecedents to human resource attributions. *Journal of Organizational Behavior, 40*(5), 570-586.

Ismail, A. I. (2017). Employee learning theories and their organizational applications. In *Employee learning theories and their organizational applications: Ismail, Abdussalaam Iyanda*.

Jansen, M. R., & Hlongwane, P. (2019). Employee performance reward and recognition inequity in the Western Cape provincial department of transport and public works. *International Conference on Public Administration and Development Alternatives (IPADA)*.

Khuzwayo, A. B., Flotman, A. P., & Mitonga-Monga, J. (2023). Transformational leadership influences on organisational justice and employee commitment in a customer service organisation. *SA Journal of Industrial Psychology, 49*, 13.

Kim, M., & Beehr, T. A. (2020). Making the case for procedural justice: employees thrive and work hard. *Journal of Managerial Psychology*.

Koo, B., Yu, J., Chua, B. L., Lee, S., & Han, H. (2020). Relationships among emotional and material rewards, job satisfaction, burnout, affective commitment, job performance, and turnover intention in the hotel industry. *Journal of Quality Assurance in Hospitality & Tourism, 21*(4), 371-401.

- Krishnan, H. (2020). The relationship between organizational justice perception and job satisfaction in small and medium enterprises. *Journal of Arts & Social Sciences*, 4(1), 31-44.
- Kwok, L. (2022). Labor shortage: a critical reflection and a call for industry-academia collaboration. *International Journal of Contemporary Hospitality Management*, (ahead-of-print).
- Lambert, E. G., Keena, L. D., Leone, M., May, D., & Haynes, S. H. (2020). The effects of distributive and procedural justice on job satisfaction and organizational commitment of correctional staff. *Social Science Journal*, 57(4), 405-416.
- Lee, M. K., Jain, A., Cha, H. J., Ojha, S., & Kusbit, D. (2019). Procedural justice in algorithmic fairness: Leveraging transparency and outcome control for fair algorithmic mediation. *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), 1-26.
- Madigan, D. J., & Kim, L. E. (2021). Towards an understanding of teacher attrition: A meta-analysis of burnout, job satisfaction, and teachers' intentions to quit. *Teaching and teacher education*, 105, 103425.
- Mbeah, J. (2021). *Compensation and Employees' Intention to Quit in Selected Hotels in the Central Region: The Mediating Role of Job Satisfaction* (Doctoral dissertation, University of Cape Coast).
- Mdhlalose, D. (2022). The Innovative Employee: The Assessment of Reward Equity on the Predisposition to Make Creative Contributions through Literature Review. *Journal of Human Resource and Sustainability Studies*, 10(3), 433-448.
- Mengstie, M. M. (2020). Perceived organizational justice and turnover intention among hospital healthcare workers. *BMC psychology*, 8, 1-11.
- Mulang, H. (2022). Analysis of The Effect of Organizational Justice, Worklife Balance on Employee Engagement and Turnover Intention. *Golden Ratio of Human Resource Management*, 2(2), 86-97.
- Nazarian, A., Zaeri, E., Foroudi, P., Afrouzi, A. R., & Atkinson, P. (2022). Cultural perceptions of ethical leadership and its effect on intention to leave in the independent hotel industry. *International Journal of Contemporary Hospitality Management*, 34(1), 430-455.
- Newman, D. T., Fast, N. J., & Harmon, D. J. (2020). When eliminating bias isn't fair: Algorithmic reductionism and procedural justice in human resource decisions. *Organizational Behavior and Human Decision Processes*, 160, 149-167.
- Pandey, D. L. (2020). Work stress and employee performance: an assessment of the impact of work stress. *International Research Journal of Human Resource and Social Sciences*, 7(05), 124-135.

-
- Pratolo, S., Sofyani, H., & Anwar, M. (2020). Performance-based budgeting implementation in higher education institutions: Determinants and impact on quality. *Cogent Business & Management*, 7(1), 1786315.
- Rai, A., Ghosh, P., & Dutta, T. (2019). Total rewards to enhance employees' intention to stay: does perception of justice play any role? In *Evidence-based HRM: a Global Forum for Empirical Scholarship*. Emerald Publishing Limited.
- Rajapaksa, D., Gifford, R., Torgler, B., Garcia-Valiñas, M., Athukorala, W., Managi, S., & Wilson, C. (2019). Do monetary and non-monetary incentives influence environmental attitudes and behavior? Evidence from an experimental analysis. *Resources, Conservation and Recycling*, 149, 168-176.
- Redondo, R., Sparrow, P., & Hernández-Lechuga, G. (2021). The effect of protean careers on talent retention: examining the relationship between protean career orientation, organizational commitment, job satisfaction and intention to quit for talented workers. *International Journal of Human Resource Management*, 32(9), 2046-2069.
- Rusbadrol, N., Panatik, S. A., Sarip, A., & Fakhruddin, F. M. (2021). Effects of Organizational Justice and Organizational Citizenship Behavior on Employee Turnover Intention. *Int. J. Acad. Res. Bus. Soc. Sci*, 11, 80-91.
- Russen, M., Dawson, M., & Madera, J. M. (2021). Gender discrimination and perceived fairness in the promotion process of hotel employees. *International Journal of Contemporary Hospitality Management*, 33(1), 327-345.
- Stone, R. J., Cox, A., & Gavin, M. (2020). *Human resource management*. John Wiley & Sons.
- Tarigan, J., Cahya, J., Valentine, A., Hatane, S., & Jie, F. (2022). Total reward system, job satisfaction and employee productivity on company financial performance: Evidence from Indonesian generation Z workers. *Journal of Asia Business Studies*, 16(6), 1041-1065.
- Thangaswamy, T., & Thiyagaraj, D. (2017). Theoretical concept of job satisfaction-a study. *International Journal of Research*, 5(6), 464-470.
- Van den Broeck, A., Carpini, J., Leroy, H., & Diefendorff, J. M. (2017). 19 How Much Effort Will I Put into My Work? It Depends on Your Type of Motivation. *An introduction to work and organizational psychology: An international perspective*, 354.
- Verma, B. K., & Kesari, B. (2020). Does the morale impact on employee turnover intention? An empirical investigation in the Indian steel industry. *Global Business Review*, 21(6), 1466-1488.

SSIRC 2023-114**THE RELATIONSHIP BETWEEN ETHICAL LEADERSHIP AND TEACHERS' JOB SATISFACTION IN A DEVELOPING COUNTRY SETTING****J. Mitonga-Monga**

University of Johannesburg, South Africa.

M.E. Mageza-Mokhethi

University of Johannesburg, South Africa.

I.D. Kubulu

Institut Supérieur Pédagogique de la Gombe, Republic Democratic of Congo.

ABSTRACT

Ethical leadership is a critical component for human resource managers and industrial and organisational psychologists. Ethical leaders are individuals who treat their employees with dignity and respect. Previous studies show the relationship between ethical leadership and employee attitudes and behaviour. However, there appear to be few studies that examine the influence of ethical leadership (ethics of critique, ethics of justice, and ethics of care) on the intrinsic and extrinsic satisfaction of teachers in a developing country such as the Democratic Republic of Congo (DRC). This study examines the relationship between ethical leadership and teachers' job satisfaction in selected public schools in the Democratic Republic of Congo. The study used the Ethical Leadership Questionnaire (ELQ) and the Job Satisfaction Scale as measurement instruments. It followed a positivist philosophy and adopted a quantitative research approach, with a convenience sample of 216 permanent teachers from the Democratic Republic of Congo (females = 47.3%; age range 26-35 years (38.9%); mean work experience = 8 years; and SD = 4.10). Multiple regression analysis examined how ethical leadership affects teachers' job satisfaction. The results show that ethical leadership (ethics of care and ethics of critique) is related positively and significantly to intrinsic and extrinsic job satisfaction. Furthermore, the results indicate that ethics of care and ethics of criticism influence intrinsic satisfaction. In addition, the results show that ethical justice and criticism influence extrinsic satisfaction. According to the results, employees' positive perceptions of ethical leaders are important in influencing their job satisfaction in a school. School leaders should exhibit ethical behaviour that has a positive impact on teacher satisfaction and should engage in particularly good management techniques.

KEYWORDS: ethical leadership, job satisfaction, Democratic Republic of Congo.

1. INTRODUCTION

Moral ethics has received much attention in management literature across the globe. Emerging businesses today play a far more significant role in providing individuals with personal benefits and realising their goals (Thompson et al., 2000). Global organisations have benefited significantly from the emerging idea that has forced them to accept moral and ethical standards as a crucial tool for organisational well-being (Chughtai et al., 2015; Ejaz et al., 2022; Huang et al., 2021).

However, scholars and practitioners are calling on both public and private companies to embrace the idea of ethical leadership to achieve global socio-economic recovery and to meet the growing need for ethics in the workplace (Armstrong, 2005; Ilyas et al., 2020; Mostafa & Abed El-Motalib, 2020). Ethical leaders treat their employees with dignity and respect. Happy and satisfied employees are likely to believe that their ethical leaders create a work culture, whilst fostering values that promote trust, fairness, and equality (Bello, 2012; Sharma, 2019), encouraging high-performance levels (Bello, 2012; Khademfar & Amiri, 2013), and reducing turnover intention and absenteeism (Elci et al., 2012; Hassan, 2014; Li et al., 2022; Shafique et al., 2018).

Job satisfaction refers to the level of enjoyment or satisfaction that an employee derives from their work (Armstrong, 2006; Gündüz, 2005; Linge & Mutinda, 2015; Omotayo, 2017). Researchers such as Mitonga-Monga et al. (2019) contend that ethical leadership and job satisfaction are intricately linked, as ethical leaders create a work environment that promotes job satisfaction. Previous studies show the link between ethical leadership and employee attitudes and behaviour. In a study by Mitonga-Monga et al. (2019), ethical leadership was positively associated with job satisfaction in a railway organisation. Although the study provides evidence of the relationship between these variables, there appears to be few studies that examine the influence of ethical leadership (ethics of critique, ethics of justice, and ethics of care) on the intrinsic and extrinsic satisfaction of teachers in a developing country such as the Democratic Republic of Congo (DRC). This study examines the relationship between ethical leadership and teachers' job satisfaction in selected public schools in the DRC.

1.1 Research context

The DRC is a central African country with a fragile economy, recovering after years of conflict (Mitonga-Monga & Flotman, 2021). The DRC education sector has long been plagued by inter-ethnic conflict, epidemics (cholera, Ebola, and COVID-19), and social, political, and economic instability (Groleau, 2017). The DRC has opted for free basic education, and in spite of compulsory basic education, basic and high school coverage in the DRC is low (Bashir, 2005), since 78% of learners in the compulsory school age range attend basic school and 33% attend high school (UNICEF RDC, 2021). However, only 73% of basic school learners complete school, while only 25.3 % of high school learners graduate (Ruforum, 2020).

The failure of these learners to complete the curriculum is owing to environmental, socio-cultural, economic, and political factors that significantly influence school activities and educational outcomes (Scislowicz et al., 2016). The education sector in the Democratic Republic of Congo is also characterised by prominent levels of corruption, fraud, intimidation, poor pay, and a lack of a leadership culture of accountability (Mitonga-Monga & Flotman, 2021). This has led to teacher dissatisfaction, which has had a negative impact on management, quality, education, and performance levels. Nevertheless, a leader's ethics and behaviour play a key role. The purpose of this study was to explore how teachers' perceptions of their ethical leaders influence their job satisfaction in this unique work environment.

2. LITERATURE REVIEW

2.1 Theoretical framework

2.1.1 Social Exchange Theory

Social exchange theory (SET) provided a solid theoretical framework and empirical foundation for this research. SET describes social interactions and relationships in terms of how people exchange resources (Cook et al., 2013; Cropanzano & Mitchell, 2005). SET assumes that individuals enter social relationships to maximize rewards while minimizing costs and evaluating the outcomes of social interactions based on a relationship between rewards and costs (Blau, 1964). In the workplace, SET has been applied to understand factors such as job satisfaction (Homans, 1958), organisational commitment (Meyer & Allen, 1991), and turnover intentions (Shore et al., 2006). In addition, SET has been used to explain the role of social support in reducing stress and promoting well-being (Thoits, 1986). SET illuminates how people evaluate the costs and benefits of their relationships and decide whether to continue or end them by highlighting the importance of resource exchange in social interactions.

SET is a well-known management theory that helps to explain workplace behaviour (Wang et al., 2015). Social exchange is a mutually dependent agreement between two actors (Coetzee et al., 2014). It is a reciprocal exchange that implies a give and take of something. When two actors interact, a sense of obligation to reciprocate arises because of the interaction, even if the form of reciprocation is unclear (Cropanzano & Mitchell, 2005). The SE theory bases exchange relationships on beliefs (Ntseke et al., 2022). Thus, employees who have an ethical leader feel obligated to reciprocate to their ethical leader because of their belief in and respect for him/her. Belief is a positive driver of individual behaviour and attitudes (Mitonga-Monga, 2020). In practice, employees may feel that their ethical leaders care about their welfare, respect them and treat them fairly, communicate ethical standards and create a conducive ethical work environment. In this case, they would tend to be satisfied and contribute to achieving goals (Mitonga-Monga, 2020).

2.1.2 Ethical leadership

Ethical leadership (EL) is important for both organisational psychologists and human resource managers (Avey et al., 2012; Walumbwa & Schaubroeck, 2009). These leaders advocate for justice and fairness, listen to employees, and make others feel heard (Tatum et al., 2003; Mitonga-Monga, 2020). Ethical leaders promote morality and help communities and organisations by setting moral standards (Brown & Mitchell, 2010; Isiramen, 2021). According to Mitonga-Monga et al. (2016), ethical leaders are moral in their personal and professional lives and live by moral principles. Researchers (Langlois et al., 2013; Mitonga-Monga et al., 2019; Mitonga-Monga, 2020; Puyo, 2022) agree that EL improves employee satisfaction, engagement, and the work environment. EL is the "demonstration of normatively appropriate behaviour through personal actions and interpersonal relationships and the promotion of such behaviour by employees through two-way communication, reinforcement and decision-making in the context of an educational organisation" (Brown et al., 2005; Puyo, 2022).

The reviewed literature recognises ethics of care, justice, and critique as essential components of EL in education (Berkovich & Eyal, 2020; Shapiro & Stefkovich, 2016; Starratt, 1991). Care ethics refer to the extent to which an ethical leader listens to others and makes them feel heard before

making critical moral decisions; justice ethics refer to an individual leader who creates a just and fair work environment and who provides a framework for followers to resolve ethical dilemmas, while critique ethics reflect the extent to which an ethical leader seeks aspects that contribute to improving and creating a better world, whilst promoting a reflexive evaluation of society and culture to challenge established power relations (Langlois et al., 2014; Lapointe et al., 2016). EL shares several important characteristics with transformational (Khan et al., 2020), charismatic (Anderson & Sun, 2017 & Khan et al., 2020), authentic (Gardner, 2011), and spiritual leadership (Fry & Matherly, 2006). Previous studies found that EL reduces turnover intention and absenteeism (Elci et al., 2012; Hassan, 2014; Li et al., 2022; Shafique et al., 2018), and increases job satisfaction and performance (Bektas, 2017; Linge & Mutinda, 2015; Omotayo, 2017).

2.1.3 Job satisfaction

The concept of job satisfaction (JS) has attracted the interest of practitioners and scholars alike (Linge & Mutinda, 2015). JS is a key driver of employee well-being (Dugguh & Dennis, 2014; Wright & Cropanzano, 2000), which enhances productivity (Bektas, 2017; Garcia & Privado, 2023). JS is a factor in employee efficiency and well-being and an indicator of physiological and psychological health, as well as employee emotions (Linge & Mutinda, 2015). There is no acceptable definition for JS. However, it can be defined as a person's emotional response owing to the interaction between their work-related values and the gains that they obtain from their work (Baş, 2002; Linge & Mutinda, 2015). JS is also considered to be a person's general attitude towards their work (Baş, 2002; Bektas, 2017). JS is a personal evaluation of working conditions, results achieved, and the emotional enjoyment of work (Baş, 2002; Bektas, 2017).

The reviewed literature identifies two factors that influence job satisfaction (Chang et al., 2021; Bektas, 2017), namely intrinsic and extrinsic job satisfaction. Intrinsic job satisfaction refers to a sense of satisfaction that comes from actual work, for example, a sense of accomplishment, responsibility, and self-esteem; and extrinsic job satisfaction refers to an individual sense of satisfaction that comes from the work environment or organisation, for example, salary, a promotion system, and leadership style (Bektas, 2017). Previous researchers such as Al-Asadi et al. (2019) and Erciş (2010) note the influence of extrinsic satisfaction on intrinsic satisfaction. Based on motivational hygiene theory, this study hypothesised that teachers whose basic needs such as salary and benefits are satisfied, tend to pursue their motivational needs, namely growth and a sense of achievement. JS is an important driver of employee well-being and relates to several fundamental aspects of an organisation, including commitment, organisational citizenship, motivation, and performance (Garcia & Privado 2023).

2.1.4 Relationship between ethical leadership and job satisfaction

From the SE theory's perspective, the work environment is inherently relational and emphasises exchange, transactions, trust and reciprocity between managers and employees as primary motivation for work (Cook et al., 2013; Cropanzano & Mitchell, 2005). An essential component of the relational aspect in the workplace is the exchange relationship between leader and followers, as it creates mutual trust, which has a positive impact on the behaviour of individual employees, making them satisfied with their work environment. Previous studies indicate that leaders who

care about their employees and treat them with fairness, dignity, and integrity influence their employees' job satisfaction positively (Mitonga-Monga et al., 2019). Examining the relationship between servant leadership and intrinsic and extrinsic job satisfaction, Bektaş (2017) posits that servant leadership influences both intrinsic and extrinsic job satisfaction. Therefore, the researcher hypothesised the following:

H1. Teachers' perceptions of ethical leadership relate positively to their intrinsic and extrinsic job satisfaction.

2.1.5. Ethical leadership as a predictor

Previous studies show that ethical leadership predicts job satisfaction (al-Asadi et al., 2019; Cook et al., 2013; Mitonga-Monga & Cilliers, 2016; Mitonga-Monga et al., 2019). Ethical leadership, inherently accepted moral behaviour, is expected to influence employees' intrinsic and extrinsic job satisfaction positively (Mitonga-Monga et al., 2019). Caring, just, and critical behaviour that a leader exhibits is critical for an organisation's success (Cook et al., 2013). Leaders who demonstrate that they care and who provide opportunities for their employees to challenge unethical behaviour and strengthen fair social exchange relationships can influence employee job satisfaction (Mitonga-Monga & Cilliers, 2016). Okan and Akyuz's (2015) study found that ethical leadership predicts intrinsic and extrinsic job satisfaction, while Al-Asadi et al. (2019) found that servant leadership predicts both intrinsic and extrinsic job satisfaction. Therefore, the following hypothesis was formulated:

H2. Teachers' perceptions of ethical leadership relate positively to their extrinsic job satisfaction.

3. METHODOLOGY

3.1 Research design

This study used both cross-sectional survey design and quantitative research methodology. Cross-sectional research establishes correlations between variables and can be used to obviate any competing hypotheses (Spector, 2019).

3.2 Sampling method

The study used convenience sampling (N = 200), using Raosoft (Raosoft, Inc., Seattle, Washington, United States) at a 95% confidence level, with a 5% margin of error. A convenience sample comprised 216 permanent teachers from the Democratic Republic of Congo (females = 47.3%; age range 26-35 years (38.9%); mean work experience = 8 years; and SD = 4.10) for the study.

3.3 Research instrument

The participants completed a biographical questionnaire and a questionnaire for the following measures: the Ethical Leadership Questionnaire (ELQ: Starrat (1991)) and the Job Satisfaction Index (MSQ: Weiss et al., 1967). The psychometric data of these measures are described below.

The ELQ consists of fifteen items adapted from Starratt (1991), measuring care ethics, criticism ethics, and justice ethics in a self-reported instrument. The ELQ uses a six-point Likert scale (1 = never; 5 = always). Sample items on the instrument include the following questions: 'I build trust

in my relationships with others'; 'I speak out against injustice'; and 'I pay attention to individuals'. The ELQ demonstrates an internal consistency (Cronbach's alpha coefficient) of 0.80 (Langois & Lapointe, 2010). In this study, the ELQ was found to have a Cronbach's alpha coefficient between 0.67 and 0.84.

The MSQ comprises twenty items, adapted from Weiss et al. (1967), measuring intrinsic and extrinsic job satisfaction. The intrinsic factors relate to self-esteem, self-respect, personal growth and development, and achievement, while the extrinsic factors of job satisfaction relate to respect and fair treatment, information, the extent of supervision, and the opportunity to participate in the organisation's methods, procedures, and goals. The MSQ is rated on a six-point Likert scale (1 = not satisfied; 5 = very satisfied). Examples of the measure include the following: 'the opportunity to be constantly engaged'; and 'the sense of fulfilment I get from my work'. Fields (2002) reports an internal consistency (Cronbach's alpha) for the MSQ of between 0.84 and 0.86.

3.4 Data collection

The researcher obtained permission to conduct the study from the University of Johannesburg's High Research Ethics Committee (IPPM- 2018-M) and the provincial Department of Primary Education, which allowed teachers to participate in the study. Participants consented manually to participate in the survey after receiving written information, including the purpose of the study and its voluntary nature. The letter and instruments were printed in a booklet and distributed to the participants. The researcher assured the participants of the confidentiality and anonymity of their respective responses, and they were asked to complete the survey during their working hours. After completing the questionnaire, participants were then asked to drop the completed instrument in the box provided.

3.4 Date analysis

The researcher used the Statistical Package for Social Science (SPSS), version 28 (IBM, Armonk, New York, United States), to examine the study's data. The first phase calculated descriptive statistics to determine the mean, standard deviation, and Cronbach's alpha coefficients. The second phase conducted correlation analysis to determine the relationship between the EL and JS variables. The third phase conducted multiple regression analyses to determine whether EL predicts the JS variable. Prior to conducting multiple regression analyses, collinearity diagnostics were conducted to ensure that zero-order correlations were below the threshold of ($r \geq 0.60$) (Cohen et al., 2018). To demonstrate statistical significance and to reduce the likelihood of type 1 errors, the researchers chose the statistical significance cut-off value at $p \leq 0.05$ and the practical effect size $r = 0.30-0.50$ (medium to large effect size).

4. RESULTS AND DISCUSSION

4.1 Descriptive statistics, correlations, and Cronbach alpha coefficients

Table 1 presents descriptive statistics of the study's variables. As shown in Table 1, the mean scores ranged from $M = 3.94$ to $M = 4.54$. As shown in Table 1, the participants obtained high mean scores for the criticism ethics ($M = 4.54$; $SD = 0.85$), followed by overall EL ($M = 4.26$; $SD = 0.71$), and the justice ethics ($M = 4.17$; $SD = 0.80$), while the lowest mean score was recorded for the solicitude ethics ($M = 4.02$; $SD = 0.81$). In terms of JS, participants obtained a high mean

score for intrinsic satisfaction (M = 4.20; SD = 0.88), followed by total JS (M = 4.06; SD = 0.57), while they obtained the lowest mean score for extrinsic satisfaction (M = 3.94; SD = 0.91).

4.2 Relating ethical leadership and job satisfaction

Table 1 illustrates that the care ethics related positively with intrinsic satisfaction ($r = 0.47$; medium effect size, $p \leq 0.05$), and extrinsic satisfaction ($r = 0.48$; medium effect size; $p \leq 0.05$). Table 1 shows that justice ethics related positively with intrinsic satisfaction ($r = 0.34$; medium effect size; $p \leq 0.05$), and extrinsic satisfaction ($r = 0.63$; large effect size; $p \leq 0.05$). Table 1 indicates that the criticism ethics related positively with intrinsic satisfaction ($r = 0.53$; large effect size; $p \leq 0.05$), and extrinsic satisfaction ($r = 0.83$; large effect size; $p \leq 0.05$).

Table 1: Descriptive statistics, Cronbach alpha coefficients, and correlations

| Variable | Mean | SD | α | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------|------|------|----------|---|---------|---------|---------|---------|---------|---------|
| Overall, EL | 4.26 | 0.71 | 0.84 | 1 | 0.77*** | 0.77*** | 0.77*** | 0.57*** | 0.57*** | 0.82*** |
| Care ethics | 4.02 | 1.11 | 0.81 | | 1 | 0.47** | 0.48** | 0.49** | 0.47** | 0.48** |
| Justice ethics | 4.17 | 0.80 | 0.67 | | | 1 | 0.38** | 0.32** | 0.34** | 0.63*** |
| Criticism ethics | 4.54 | 0.85 | 0.75 | | | | 1 | 0.52*** | 0.53*** | 0.83*** |
| Overall JS | 4.06 | 0.57 | 0.76 | | | | | 1 | 0.69*** | 0.44** |
| Intrinsic satisfaction | 4.20 | 0.88 | 0.71 | | | | | | 1 | 0.44** |
| Extrinsic satisfaction | 3.94 | 0.91 | 0.67 | | | | | | | 1 |

Note: *** $p \leq 0.001$ ** $p \leq 0.01$. + $r \geq 0.29$ (Small effect) ; ++ $r \geq 0.30 \geq r \leq 0.49$ (medium effect); +++ $r \geq 0.50$ (large effect) EL; ethical leadership; JS; job satisfaction, SD; standard deviation, α ; Cronbach's alpha coefficient

4.3 Standardized multiple regression.

Table 2 presents the results of the standardized multiple regression analyses that were computed to determine whether ethical leadership influences teachers' job satisfaction. Multicollinearity was assessed prior to performing the regression. Multicollinearity helps to detect if there is a relationship between two independent variables, and it happens when the independent variables are highly correlated ($r \geq 0.80$) (Hair et al., 2019). To evaluate the assumptions of multicollinearity, the researcher tested the zero-order correlations. The zero-order correlations were below 0.60, indicative of the absence of multicollinearity concern (Hair et al., 2019).

The three computed regression models were found to be statistically significant ($F_p < 0.05$), as indicated in the sections below. Model 1 contributed 34% ($R^2 = 0.34$: job satisfaction) of variance towards explaining job satisfaction. As shown in Table 2, Model 1 (JSQ), the ethics of criticism ($\beta = 0.36$; $p = 0.001$), and solicitude ($\beta = 0.29$; $p = 0.001$) functioned as significant predictors of overall job satisfaction, while the criticism ethic contributed the most towards explaining the variance in overall job satisfaction. Therefore, hypothesis 2 is accepted.

As shown in Table 2, Model 2 contributed 34% ($R^2 = 0.34$: intrinsic satisfaction) of the variance to explain intrinsic satisfaction. As shown in Table 2, Model 2 (IS), the criticism ($\beta = 0.38$; $p = 0.001$), and solicitude ethics ($\beta = 0.25$; $p = 0.001$) functioned as significant predictors of intrinsic

satisfaction, while the criticism ethics contributed the most towards explaining the variance in intrinsic satisfaction. Therefore, hypothesis 2 is accepted.

As indicated in Table 2, Model 3 contributed 81% ($R^2 = 0.81$: extrinsic satisfaction) of the variance toward explaining intrinsic satisfaction. As shown in Table 2, Model 3 (ES), the ethics of criticism ($\beta = 0.70$; $p=0.001$), and justice ($\beta = 0.38$; $p=0.001$) functioned as significant predictors of extrinsic satisfaction, while the criticism ethic contributed the most towards explaining the variance in extrinsic satisfaction. Therefore, Hypothesis 2 is accepted.

Table 2: Standardized multiple regression: ethical leadership as a predictor of job satisfaction (N=218)

| | Model 1 Total job satisfaction | | | Model 2 Intrinsic satisfaction | | | Model 3 Extrinsic satisfaction | | |
|---------------------|-----------------------------------|---------|---------|-----------------------------------|---------|---------|-----------------------------------|---------|---------|
| | B | β | P-value | B | β | P-value | B | β | P-value |
| (Constant) | 32.19 | | 0.001 | 5.97 | | 0.00 | -.091 | | 0.00 |
| Care ethics | 0.43 | 0.29 | 0.001 | 0.19 | 0.25 | 0.00 | -0.02 | -0.03 | 0.37 |
| Justice ethics | 0.12 | 0.05 | 0.401 | 0.08 | 0.07 | 0.25 | 0.37 | 0.38 | 0.00 |
| Criticism ethics | 0.77 | 0.36 | 0.001 | 0.42 | 0.38 | 0.00 | 0.68 | 0.70 | 0.00 |
| F (df; mean square) | (3;1833.49) = 37.40*** | | | (3; 482.10) = 37.94*** | | | (3;882.61) = 305.85*** | | |
| R | 0.35 | | | 0.35 | | | 0.81 | | |
| Adjusted R2 | 0.34+++ | | | 0.34+++ | | | 0.81+++ | | |

Note: β , standardised regression coefficient; B, unstandardized regression coefficient; df, degrees of freedom

4.4 DISCUSSION

This study examined the relationship between ethical leadership and job satisfaction among teachers in selected schools in a developing country such as the Democratic Republic of Congo. The results show that ethical leadership (care ethics, justice ethics and criticism ethics) related positively and significantly to teachers' intrinsic and extrinsic job satisfaction. Specifically, ethical leadership influenced teachers' job satisfaction, since when teachers' perceptions of ethical leadership were high, their self-reported job satisfaction was also high. These findings are consistent with previous research, which found that school leaders' perceptions of ethical behaviour are crucial for schools (Katranci et al., 2015; Mlambo & Khumalo, 2022; Webster & Litchka, 2020).

The correlation results indicate that EL correlates with JS. The correlation results show that EL relates to JS, which means that teachers who perceive that their supervisor promotes morale, improves communication, listens to them, and creates a just and fair work environment, are likely to have a sense of achievement, high self-esteem, and are satisfied with their promotion system. The findings support those of Langlois et al. (2014) and Lapointe et al. (2016), which assume that ethical leaders exhibit care, criticism, and justice and fairness ethics, which can increase teacher satisfaction.

The findings suggest that care, criticism, and justice ethics correlate with intrinsic and extrinsic JS. The suggestion is that teachers perceive a sense of fulfilment and are satisfied with their working conditions and leadership style when they perceive ethical behaviour from their leader, which includes making critical moral decisions, providing a framework for resolving ethical dilemmas, and encouraging reflective evaluation to challenge unethical behaviour. These results support the findings of Aljbour (2020) and Al-Khresha (2018), who found that care, criticism, and justice ethics relate to intrinsic and extrinsic JS.

The multiple regression results indicate that EL (care and criticism ethics) does indeed predict the overall JS and intrinsic JS positively and significantly. The results show that criticism ethics contribute more to the differences in teachers' overall JS and intrinsic JS (Chang et al., 2021; Langlois et al., 2014; Lapointe et al., 2016). The results indicate that care and criticism ethics predict extrinsic JS. Hence, teachers who perceive that their ethical supervisors create a just, fair, and favourable work environment are likely to be satisfied with their supervisors' behaviour, as well as promotion and reward systems. These findings mirror those of Begley and Leonard (2005) and Webster and Litchka (2020), who found that criticism and justice ethics influence extrinsic JS.

4.5 Implications for management practices

Several practical implications for ethical leadership practices in schools emerged from the study's findings. First, the study has implications for general leadership development practices and for the formulation of HR policies that relate to teachers' JS and performance (Chang et al., 2021; Gracia et al., 2023). Based on these findings, school leaders may find it extremely important to create an ethical and conducive work environment that can nurture teachers' JS (Bekta, 2017). The study found that the perceptions of an ethical leader who creates a just and fair work environment have a direct influence on teachers' perceptions of intrinsic and extrinsic factors for JS. The study also confirms that EL influences teachers' perceptions of JS (Chang et al., 2021). Schools should, therefore, appoint and train their leaders on EL behaviours (Katranci et al., 2015; Mlambo & Khumalo, 2022; Webster & Litchka, 2020). It is expected that these behaviours will influence JS positively and increase achievement (Bektas, 2017; Garcia et al., 2023).

4.6 Limitations and recommendations for future research

This study has several limitations. The first limitation is owing to the methodology that the study used, which included a non-probability sampling procedure and a cross-sectional survey. The sampling procedure raises concerns about the representativeness of the participants and the ability to generalise the study's results. The study should be replicated with a larger sample and a longitudinal design to establish causality. Another limitation is that the sample comprised selected schools in the Democratic Republic of Congo, hence the results cannot be generalised.

Future studies should seek to examine the impact of other leadership styles such as relational, authentic, charismatic, transformational, and accountability leadership styles, as well as organisational culture and climate on teachers' JS, work engagement, and job performance. A

qualitative approach could also be used to explain why there are such different views on the relationship between the study's variables.

5. CONCLUSION

Ethical leadership was found to contribute to teachers' job satisfaction. The empirical statistical relationship showed that the relationship between ethical leadership and job satisfaction provides new insights into teacher performance and retention. Multiple regression analyses revealed that care, criticism, and justice ethics predicted intrinsic and extrinsic JS. This study concludes that the sub-dimensions of ethical leadership, namely care, criticism, and justice ethics play a significant role in explaining intrinsic and extrinsic JS. Teachers who perceive their ethical leaders as being caring, fair, and critical, are likely to show elevated levels of JS. The study's overall findings lead the researcher to conclude that these ethical values should be considered to improve the functioning of schools in the DRC, whilst enhancing teachers' JS and their performance.

REFERENCES

- Al-Asadi, R., Muhammed, S., Abidi, O., & Dzenopoljac, V. (2019). Impact of servant leadership on intrinsic and extrinsic job satisfaction. *Leadership & Organization Development Journal*, 28(2), 27-29. <https://doi.org/10.1108/HRMID-11-2019-0267>.
- Aljbour, H. (2020). The extent of practicing ethical leadership by public secondary school principals in Amman. *Journal of Education and Practice*, 11(15), 57-63. <https://doi.org/10.7176/JEP/11-15-07>.
- Al-Khresha, S. (2018). The degree of practicing moral leadership by secondary school principals and its relation to their organization as perceived by educational supervisors. *Dirasat: Educational Sciences*, 45(4), 270-286.
- Anderson, M.H., & Sun, P.Y. (2017). Reviewing leadership styles: Overlaps and the need for a new 'full range' theory. *International Journal of Management Reviews*, 19(1), 76-96. <https://doi.org/10.1111/ijmr.12082>.
- Armstrong, E. (2005). Integrity, transparency, and accountability in public administration: Recent trends, regional and international developments, and emerging issues. *United Nations, Department of Economic and Social Affairs*, 1(10), 1-10. <https://doi:10.1007/s10551-012-1298-2>.
- Avey, J.B., Wernsing, T.S., & Palanski, M.E. (2012). Exploring the process of ethical leadership: The mediating role of employee voice and psychological ownership. *Journal of Business Ethics*, 107(1), 21-34.
- Baş, T. (2002). Determination of job satisfaction profiles of faculty members. *DE Üİİ BF Dergisi*, 17(2), 19-37.
- Bashir, S. (2005). *Le système éducatif de la République Démocratique du Congo : Priorités et alternatives*.
- Begley, P., & Leonard, P. (2005). *The values of educational administration: A book of readings*. Routledge.

- Bektaş, Ç. (2017). Explanation of intrinsic and extrinsic job satisfaction via mirror model. *Business & management studies: An International Journal*, 5(3), 627-639.
- Bello, S.M. (2012). Impact of ethical leadership on employee job performance. *International Journal of Business and Social Science*, 3(11), 228-236.
- Berkovich, I., & Eyal, O. (2020). Ethics education in leadership development: Adopting multiple ethical paradigms. *Educational Management Administration & Leadership*, 48(2), 270-285. <https://doi.org/10.1177/1741143218792914>.
- Blau, P.M. 1964. *Exchange and power in social life*. New York: John Wiley.
- Brown, M.E., & Mitchell, M.S. (2010). Ethical and unethical leadership: Exploring new avenues for future research. *Business Ethics Quarterly*, 20(4), 583-616.
- Brown, M.E., Treviño, L.K., & Harrison, D.A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational behavior and human decision processes*, 97(2), 117-134. <https://doi.org/10.1016/j.obhdp.2005.03.002>.
- Chang, Y.C., Yeh, T.F., Lai, I.J., & Yang, C.C. (2021). Job competency and intention to stay among nursing assistants: the mediating effects of intrinsic and extrinsic job satisfaction. *International Journal of Environmental Research and Public Health*, 18(12), 6436. <https://doi.org/10.3390/>.
- Chughtai, A., Byrne, M., & Flood, B. (2015). Linking ethical leadership to employee well-being: The role of trust in supervisors. *Journal of Business Ethics*, 128, 653-663.
- Coetzee, M., Mitonga-Monga, J., & Swart, B. (2014). Human resource practices as predictors of engineering staff's organisational commitment. *SA Journal of Human Resource Management*, 12(1), 12. <https://doi.org/10.4102/sajhrm.v12i1.604>.
- Cook, K.S., Cheshire, C., Rice, E.R., & Nakagawa, S. (2013). Social exchange theory. *Handbook of Social Psychology*, 61-88.
- Cropanzano, R., & Mitchell, M.S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874-900.
- Dugguh, S.I., & Dennis, A. (2014). Job satisfaction theories: Traceability to employee performance in organizations. *IOSR Journal of Business and Management*, 16(5), 11-18.
- Ejaz, T., Anjum, Z.U.Z., Rasheed, M., Waqas, M., & Hameed, A.A. (2022). Impact of ethical leadership on employee well-being: the mediating role of job satisfaction and employee voice. *Middle East Journal of Management*, 9(3), 310-331.
- Elci, M., Şener, İ., Aksoy, S., & Alpkan, L. (2012). The impact of ethical leadership and leadership effectiveness on employees' turnover intention: The mediating role of work-related stress. *Procedia-Social and Behavioral Sciences*, 58, 289-297. <https://doi.org/10.1016/j.sbspro.2012.09.1003>.
- Erciş, M.S. (2010). The Importance of Motivation in Marketing Communication and Multinational Shopping Center Example. *Gazi Üniversitesi İletişim Fakültesi*, 30(1), 165-180.
- Fields, D.L. (2002). *Taking the Measure of Work: A Guide to Validated Scales for Organizational Research and Diagnosis*. Thousand Oaks, CA: Sage.
- Fry, L.W., & Matherly, L.L. (2006). Spiritual leadership and organizational performance: An exploratory study. *Tarleton State University—central Texas*. Garcia, C., & Privado, J. (2023). Predicting cooperative work satisfaction of autonomous groups using a wiki tool in higher

- education. *Interactive Learning Environments*, 31(1), 117-128. <https://doi.org/10.1080/10494820.2020.1764590>.
- Gardner, W.L., Cogliser, C.C., Davis, K.M., & Dickens, M.P. (2011). Authentic leadership: A review of the literature and research agenda. *The Leadership Quarterly*, 22(6), 1120-1145. <https://doi.org/10.1016/j.leaqua.2011.09.007>.
- Groleau, G. (2017). Note de politiques et pratiques Une meilleure gestion et redevabilité : des conditions pour un meilleur accès et une plus grande qualité de l' éducation primaire en République Démocratique du (Issue January).
- Gündüz, H. (2005). The Effects of Organizational Climate on Job Satisfaction and Intention to Leave: A Research. *C.Ü. İ.İ.B.F. Dergisi*, 6(2), 23-40.
- Hair, J.F., Risher, J.J., Sarstedt, M., & Ringle, C.M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.
- Hassan, S., Wright, B.E., & Yukl, G. (2014). Does ethical leadership matter in government? Effects on organizational commitment, absenteeism, and willingness to report ethical problems. *Public Administration Review*, 74(3), 333-343. <https://doi.org/10.1111/puar.12216>.
- Homans, G.C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63(6), 597-606. <https://doi.org/10.1086/222355>.
- Huang, N., Qiu, S., Yang, S., & Deng, R. (2021). Ethical leadership and organizational citizenship behavior: mediation of trust and psychological well-being. *Psychology Research and Behavior Management*, 14 655-664. <https://doi.org/10.2147/PRBM.S311856>.
- Ilyas, S., Abid, G., & Ashfaq, F. (2020). Ethical leadership in sustainable organizations: The moderating role of general self-efficacy and the mediating role of organizational trust. *Sustainable Production and Consumption*, 22, 195-204. <https://doi.org/10.1016/j.spc.2020.03.003>
- Isiramen, O.M. (2021). ETHICAL LEADERSHIP AND EMPLOYEE RETENTION. *GPH-International Journal of Business Management*, 4(12), 10-26. <https://doi.org/10.5281/zenodo.6992244>.
- Katranci, I., Sungu, H., & Saglam, M. (2015). Teachers' Perceptions about the School Principals' Ethical Leadership Behaviours: A Study from Turkish Vocational High Schools. *Universal Journal of Educational Research*, 3(8), 546-554. <https://doi.org/10.13189/ujer.2015.030810>.
- Khademfar, M., & Amiri, S.A. (2013). The relationship between ethical leadership and organizational performance (Small Review on Malaysian Studies). *International Journal of Business and Social Science*, 4(1).
- Khan, M.A., Ismail, F.B., Hussain, A., & Alghazali, B. (2020). The interplay of leadership styles, innovative work behavior, organizational culture, and organizational citizenship behavior. *Sage Open*, 10(1), 2158244019898264.
- Langlois, L., Lapointe, C., Valois, P., & de Leeuw, A. (2014). Development and validity of the ethical leadership questionnaire. *Journal of Educational Administration*, 52(3), 310-331. <https://doi.org/10.1108/JEA-10-2012-0110>.

-
- Lapointe, C., Langlois, L., Valois, P., & Arar, K. (2016). An international cross-cultural validation of the ethical leadership questionnaire. *International Studies in Educational Administration, 44*, 129-150.
- Li, Y., Soomro, M.A., Khan, A.N., Han, Y., & Xue, R. (2022). Impact of ethical leadership on employee turnover intentions in the construction industry. *Journal of Construction Engineering and Management, 148*(7), 04022054.
- Linge, T.K., & Mutinda, J. (2015). Extrinsic Factors That Affect Employee Job Satisfaction in Faith Based Organizations. *Journal of Language, Technology & Entrepreneurship in Africa, 6*(1), 72-81.
- Meyer, J.P., & Allen, N.J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*(1), 61-89. [https://doi.org/10.1016/1053-4822\(91\)90011-Z](https://doi.org/10.1016/1053-4822(91)90011-Z).
- Mitonga-Monga, J. (2020). Social exchange influences on ethical leadership and employee commitment in a developing country setting. *Journal of Psychology in Africa, 30*(6), 485-491. <https://doi.org/10.1080/14330237.2020.1842587>.
- Mitonga-Monga, J., & Flotman, A.P. (2021). Corporate ethical values and ethical work climate influences on employees' helping behaviour in a developing country's banking sector setting. *Journal of Psychology in Africa, 31*(6), 580-587. <https://doi.org/10.1080/14330237.2021.2001920>.
- Mitonga-Monga, J., Flotman, A.P., & Cilliers, F. (2016). Workplace ethics culture and work engagement: The mediating effect of ethical leadership in a developing world context. *Journal of Psychology in Africa, 26*(4), 326-333. <https://doi.org/10.1080/14330237.2016.1208928>.
- Mitonga-Monga, J., Flotman, A.P., & Moerane, E.M. (2019). Influencing ethical leadership and job satisfaction through work ethics culture. *Journal of Contemporary Management, 16*(2), 673-694.
- Mlambo, F., & Khumalo, S.S. (2022). An examination of the promotion of the ethic of professional praxis of secondary school principals: a South African perspective. *International Journal of Leadership in Education, 1-15*.
- Mostafa, A.M.S., & Abed El-Motalib, E.A. (2020). Ethical leadership, work meaningfulness, and work engagement in the public sector. *Review of Public Personnel Administration, 40*(1), 112-131. <https://doi.org/10.1177/0734371X18790628>.
- Ntseke, T., Mitonga-Monga, J., & Hoole, C. (2022). Transformational leadership's influences on work engagement and turnover intention in an engineering organisation. *SA Journal of Human Resource Management, 20*, 11. <https://doi.org/10.4102/sajhrm.v20i0.2013>.
- Okan, T., & Akyuz, A.M. (2015). Exploring the relationship between ethical leadership and job satisfaction with the mediating role of the level of loyalty to supervisor. *Business Management Research Journal, 6*(4), 155-177.
- Omotayo, O.A.R. (2017). Employee job satisfaction and organizational performance an insight from selected hotels in Lagos Nigeria. *Kuwait Chapter of the Arabian Journal of Business and Management Review, 6*(10), 48-59. <https://doi.org/10.12816/0039071>.
-

-
- Pallant, J. 2020. *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*, 7th ed. London: Routledge.
- Puyo, J.G.B. (2022). Ethical Leadership in Education: A Uniting View Through Ethics of Care, Justice, Critique, and Heartful Education. *Journal of Culture and Values in Education*, 5(2), 140-151. <https://doi.org/10.46303/jcve.2022.24>.
- Research. C.Ü. İ.İ.B.F. Dergisi, 6(2), 23-40.
- Scislowicz, J., Bulat, J., Nordstrum, L., Edwards, L., & Osborne, S. (2016). *Services d'évaluation de l'éducation en République démocratique du Congo (RDC)* (Issue 29).
- Shafique, I.N., Kalyar, M., & Ahmad, B. (2018). The nexus of ethical leadership, job performance, and turnover intention: The mediating role of job satisfaction. *Interdisciplinary Description of Complex Systems: INDECS*, 16(1), 71-87. <https://doi.org/10.7906/indecs.16.1.5>.
- Shapiro, J.P., and Stefkovic, J.A. (2016). *Ethical leadership and decision-making in education. Applying theoretical perspectives to complex dilemmas*. Routledge.
- Sharma, A., Agrawal, R., & Khandelwal, U. (2019). Developing ethical leadership for business organizations: A conceptual model of its antecedents and consequences. *Leadership & Organization Development Journal*.
- Sherrard, D. (2020). The COVID-19 crisis and the future of education. rforum.org.
- Shore, L.M., Tetrick, L.E., Lynch, P., & Barksdale, K. (2006). Social and economic exchange: Construct development and validation. *Journal of Applied Social Psychology*, 36(4), 837-867. <https://doi.org/10.1111/j.0021-9029.2006.00046.x>.
- Spector, P.E., 2019, 'Do not cross me: Optimizing the use of cross-sectional design'. *Journal of Business and Psychology*, 34(2), 125–137. <https://doi.org/10.1007/s10869-018-09613-8>.
- Starratt, R. (1991). Building an ethical school. A theory for practice in educational leadership. *Educational Administration Quarterly*, 27(2), 185–202. <https://doi.org/10.1177/0013161X91027002005>.
- Tatum, B.C., Eberlin, R., Kottraba, C., & Bradberry, T. (2003). Leadership, decision making, and organizational justice. *Management Decision*, 41(10), 1006-1016.
- Thoits, P.A. (1986). Social support as coping assistance. *Journal of Consulting and Clinical Psychology*, 54(4), 416. <https://doi.org/10.1037/0022-006X.54.4.416>.
- Thompson, J., Alvy, G., & Lees, A. (2000). Social entrepreneurship—a new look at the people and the potential. *Management Decision*, 38(5), 328-338.
- Walumbwa, F.O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: mediating roles of ethical leadership and work group psychological safety. *Journal of Applied Psychology*, 94(5), 1275.
- Wang, H.K., Yen, Y.F. & Tseng, J.F. 2015. 'Knowledge sharing in knowledge workers: The roles of social exchange theory and the theory of planned behavior'. *Innovation*, 17(4), 450–465. <https://doi.org/10.1080/14479338.2015.1129283>.
- Webster, K. & Litchka, P. (2020). Planning for Effective School Leadership: Teachers' Perceptions of Leadership Skills and Ethical Behaviors of School Principals. *Educational Planning*, 27(1), 31-47.
- Weiss, D.J., Dawis, R.V., & England, G.W. (1967). Manual for the Minnesota satisfaction questionnaire. *Minnesota studies vocational rehabilitation*.
-

Wright, T.A. & Cropanzano, R. (2000). Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology*, 5(1), 84-94. doi: 10.1037/1076-8998.5.1.8

SSIRC 2023-115**DEMOCRACY, ACCESS TO TECHNOLOGY AND INCOME INEQUALITY TRILEMMA IN SOUTH AFRICA****O.N. Oladunjoye**

North-West University, South Africa

N.A.Tshidzumba

North-West University, South Africa

ABSTRACT

The relationship between democracy and income inequality has received attention in the literature, but the evidence has been far from conclusive due to rising inequalities among developing economies of the world. Conversely, access to technology has enhanced productivity, accelerated economic growth, enabled knowledge transfer and information sharing. However, access to technology is also regarded as one of the indicators of inequalities due to an increase in digitization and automation. South Africa is one of the most unequal countries in the world which has poverty and lack of opportunities because of this inequality. Despite South Africa's nearly three-decades of uninterrupted popular democracy and the increasing technological advancement to improve society's well-being, income inequality remains very high. The study adopted principal component analysis, fully modified least squares and Toda-Yamamoto Granger causality method of analysis. The result revealed that democracy has an inverse relationship with inequality but does not significantly result in reducing income inequality in South Africa. Instead, access to technology is seen to have an inverse relationship with income inequality and significantly promotes reduction in income inequality in the country. The study established the existence of democracy, access to technology and income inequality trilemma but found that these three phenomena are independent of each other and found no evidence to support that any of them is responsible for the cause of another and neither is there any feedback causation among democracy, access to technology and income inequality in South Africa. The study concludes that access to technology significantly contributes to the reduction in income inequality in South Africa much more than the years of democratic practice in the country and that government should continue to invest in the use of technology and provide enabling environment and infrastructure that will aid the continuous access to technology in South Africa.

KEYWORDS: Democracy; Access to Technology; Income Inequality; Principal Component Analysis; Fully Modified Least Squares; Toda-Yamamoto Granger Causality; South Africa

1. INTRODUCTION

Democracy is a system of government premised on the principle of freedom and fundamental human rights. South Africa revoked its apartheid laws becoming a popular democracy in 1994 and has since been enjoying the dividends of democracy, such as the entrenchment of fundamental human rights, freedom of association and freedom to own property for almost three decades (Olson, 1993; Clague *et al.* 1996; Graham, 2020; Levy *et al.*, 2021). Also, South Africa has

generally been viewed as being less poor but more unequal due to a high level of inequality where more than half of the population survive on less than R779 (US\$67) a month or R26 (US\$2.20) per day (Gaventa & Ruciman, 2016). However, the problem of rising inequality has persisted despite practicing democracy as a system of government in South Africa which adversely affects the economic development and socio-political stability of the country (Gaventa & Ruciman, 2016; Graham, 2020; Levy *et al.*, 2021). These inconsistencies resulted in setbacks leading to the problems of a high poverty rate of more than 55 percent, an unemployment rate of over 27 percent and youth unemployment of about 50 percent, thus resulting in a high level of inequality in the country (May *et al.*, 2016).

Technology, together with the opportunities provided by trade and investment for capital accumulation and productive transformation, has helped achieve an unprecedented level of economic growth in Asia and the Pacific, enabling several countries to catch up with developed nations. However, least-developed countries (LDCs) and countries with special needs have not been able to build technological capabilities and are lagging. The potential of technologies to reduce inequality in opportunities is vast but is not automatic. It largely depends on the capabilities of the poor to access and use technologies and solutions that respond to their needs. There is no doubt that inequality of income is the single greatest threat to social stability throughout the world. The development of technologies contributes to the increase of labor productivity, the replacement of job positions by robots and automatic machines, which can further exacerbate social inequality (Kharlamova *et al.*, 2018).

The African Union's long-term Agenda 2063 emphasizes that Africa's advancement necessitates sustained investment in science, technology, and innovation (African Union, 2014). Similarly, the European Commission (2019) deems innovation "vital to European competitiveness in the global economy." Pfothenauer and Jasanoff (2017) have even suggested that "it seems as if all governmental functions must address the importance of innovation in order to appear economically defensible." The International Telecommunication Union (2021) also emphasized the indispensable role of Information and Communication Technology (ICT) in sustaining business operations, education, employment, and provision of essential public services, thereby enabling the continuation of economic activities. However, the advancement of technology and economic growth often go hand in hand with an exacerbation of income disparities, especially in developing countries.

Nevertheless, various empirical studies (Kudasheva *et al.*, 2015; Das & Drine, 2020) have demonstrated that ICTs can mitigate income inequality by promoting access to knowledge and opening new opportunities for income growth. In the same vein, there is a rising argument that access to technology in the form of information and computer technology could provide a platform to obtain a higher income that can reduce the level of poverty and improve the standards of living in a country (Kudasheva *et al.*, 2015).

The democratization process in South Africa promoted significant access and adoption of technology by the government through the efforts of the Department of Arts, Culture, Science and

Technology (DACTS), which published a Green and White Paper on Science and Technology in South Africa in 1996 with the aim of restructuring and implementing policies that will accelerate the use of technology in education and putting science and technology at the forefront of the country's development agenda (Mokgobu, 2005). The aim of the White Paper is to "promote competitiveness and employment opportunity, enhance the quality of life, development of human resources, environmental sustainability, promoting informed society, knowledge generation through innovation and democracy enhancement through technological involvement."

Therefore, the South African technological policy is formulated along the (science and) technology policy defined by UNESCO (1990) as "...the development and fruitful use of national scientific and technological resources in order to promote the advancement of knowledge, encourage innovation, increase productivity and to attain the objectives of the country's economic, social and cultural development more quickly and surely."

In the same vein, the relationship between technology and inequality is multifaceted, while the relationship between technology and democracy is regarded as two interrelated variables (Mokgobu, 2005). Technology has enhanced productivity, accelerated economic growth, enabled knowledge and information sharing and increased access to basic services. Yet the potential of modern ICTs to profoundly alter political, social, and economic relations is extensive (see Horrocks & Pratchett, 1998). However, technology has also been identified as a cause of inequalities (Kudasheva *et al.*, 2015; ESCAP, 2017; Kerkeni & Mnif, 2022).

The South African government's stand on access to technology is premised on improving the well-being of society in the form of a drastic reduction in the level of income inequality. However, the pertinent empirical question is whether access to technology promotes democracy (Mokgobu, 2005). The relationship between technology and democracy in South Africa is an essential component of the government's strategy for growth and economic development in creating a better life for all. The advent of democracy in South Africa has seen initiatives taken by government to review and reform the country's technology approach. In 1996 the government published South Africa's Science and Technology Policy, which envisages a future where all citizens will enjoy a sustainable quality of life, participate in the economy, and share a democratic culture (Mokgobu, 2005).

South Africa is one of the most unequal countries in the world, where poverty, lack of job creation and lack of public service delivery can all be blamed on inequality (Odeyemi, 2009; Keeton, 2014). The income inequality has hardly changed despite the introduction of social transfers that now reach 16 million poor South Africans. Income inequality remains high partly because the number of jobs created over the past 20 years barely kept pace with growth in the labor force (Keeton, 2014).

Despite the uninterrupted popular democracy for almost three decades in South Africa and the increasing technological advancement to improve the well-being of society, income inequality persists. Although the relationship between democratic rule and income inequality has received important attention in recent literature, the evidence has been far from conclusive (Gossel, 2022;

Bahamonde & Trasberg, 2021). Studies addressing this trilemma in the case of South Africa are not only scanty but very scarce. The broad objective of this study is to provide information on the nexus among democracy, access to technology and income inequality in South Africa. The specific objectives are to investigate the impact, causation and feedback of democracy and access to technology on income inequality in South Africa. Other remaining sections of this study include the literature review, methodology, analysis and interpretation of results and conclusion and recommendations.

2. LITERATURE REVIEW

Krieger and Meierrieks (2015) examine the interaction between income inequality, economic freedom, and democracy among a panel of 100 countries. The study finds the existence of a negative causal effect running from income inequality to economic freedom, while there is no feedback from economic freedom to income inequality. The finding further argued that the elite within the countries studied use political power to undermine economic freedom to defend their economic interest by discouraging innovation, competition and protecting their rent-seeking behaviors.

Nikoloski (2015) explores the nexus between democracy and income inequality. The study finds that though the relationship between democracy and income inequality is not very certain, it remains obvious that democracy does not promote equality in income. The study by Kudasheva *et al.* (2015) examines the effect of access to education and information communication technology on income inequality in Kazakhstan. The study used the correlation and frequency method of analysis and found that both access to education and information communication technology promotes income inequality in the country due to low access to qualitative education and information and communication technology. The study further recommended that that government should put in place policies and measures to reduce income inequality and enhance the quality of life of the people.

Asongu and Odhiambo (2018) investigated how information and communication technology enhancement affected income inequality in Africa's sustainable development among 48 African countries using panel GMM. The study established that internet penetration and fixed broadband subscriptions ameliorate the problem of income inequality in Africa. Similarly, Tchamyou *et al.* (2018) explored the relationship among income inequality, ICT, and access to finance in Africa and made use of the panel. The study finds that ICT adoption reduces income inequality in Africa through the financial development channels.

Furthermore, Asongu *et al.* (2019) investigate the relationship among income inequality, information technology and inclusive education in Sub-Saharan Africa. The study made use of the panel GMM technique of analysis and established that a Gini-coefficient (0.40) and Atkinson ratio (0.63) are the income inequality threshold that must not be exceeded for internet penetration (technology) to have influence on education and that if Gini-coefficient (0.57), Atkinson ratio (0.68) and Palma ratio (9.0) are exceeded, information technology will fail to promote inclusive education in Africa. The study by Hartwell *et al.* (2019) examines the nexus among democratic

institutions, natural resources, and income inequality among selected developing countries. The study adopts the panel OLS technique of analysis and found that income inequality is highly pronounced in non-democratic-resource-abundant countries, while income inequality is considerably reduced among democratic countries.

In addition, Heimberger (2019) investigates the effect of globalization on income inequality using a meta-analysis and meta-regression model consisting of 1,254 observations. The study finds that globalization fairly contributes to income inequality but observes that financial globalization, which is a component of the overall globalization index, significantly contributes to the problem of inequality. However, education and technology are seen to moderately reduce the impact of globalization on income inequality.

Kerkeni and Mnif (2020) examine the relationship between income inequality, education and technology in developing countries using panel data analysis. The study finds that technology (innovation) significantly contributed to income inequality, while skilled workforce through educational attainment and certification leads to a reduction in income inequality. The study by Nawab *et al.* (2020) investigates the influence of information communication technology development on income inequality among 28 OECD countries. The study finds that ICT ameliorates the problem of income inequality within the OECD.

The study by Nguyen (2021) scrutinizes the role of democracy in the financial development and income inequality nexus in Vietnam using the ARDL method of analysis. The study observes that financial development contributes to the problem of income inequality while democracy reduces it. Conversely, financial development is expected to ameliorate the problem of income inequality in a country with a deepened democratic system of government. While Gossel (2022) investigates the role of democracy in the nexus between FDI and inequality in Sub-Saharan Africa using the system GMM approach. The study found that although FDI aggravates the problem of income inequality, democracy significantly promotes income equality in Africa.

In the same vein, Dossou *et al.* (2022) examines whether e-governance reduces the challenge of income inequality in Sub-Saharan Africa through the dynamic panel GMM framework of analysis. The study finds that ICT helps to ameliorate income inequality while the quality of governance exacerbates it in Africa. The study further recommends that the adoption of e-governance could assist in improving the social welfare of the citizens, which will ultimately lead to a reduction in the level of income inequality. The study by Ndoeye and Asongu (2022) examines the relationship among digital divide, globalization, and income inequality in Sub-Saharan African countries. The study made use of the finite mixture model of analysis on 35 countries and found that the digital divide significantly reduces income inequality in countries that are highly globalized.

Tang *et al.* (2022) examines the moderating role of public spending, manufacturing, agricultural employment, and export diversification in the causal relationship between technological innovation and income inequality in a panel data analysis consisting of 73 selected countries. The study reveals that technological innovation exacerbates income inequality, but government spending reduces income inequality, while agriculture and export diversification is inconclusive.

Evidence from recent empirical studies supports the inconclusiveness of the relationship among democracy, technology, and income inequality. For instance, Asongu *et al.* (2023) assess the relationship among information technology, inequality and adult literacy among developing countries using the Tobit regression model. The study established a threshold level of 0.74 which must not be exceeded for internet access in schools to significantly promote adult literacy among developing countries. Dossou (2023) explores the role of governance quality in the relationship between urbanization and income inequality in Africa. The study used the two-staged-system GMM and found that increase in the rate of urbanization significantly contributes to the problem of inequality in Africa. The study further noted that improving the quality of governance can help ameliorate the problem of income inequality in Africa.

Trinugroho *et al.* (2023) examine the nexus among democracy, economic growth, and income inequality across the various provinces in Indonesia using a panel data analysis. The study finds that democracy through the substantial cost of governance, hampers economic growth. However, the study reveals that democracy helps to reduce the high incidence of income inequality across the provinces. However, the major gap from the literature is that most of the studies are cross-country studies which does not recognize the individual peculiarities of an emerging economy like South Africa and, hence, most conclusions from those studies may not capture the true relationship between among these variables of interest. Therefore, this study intends to fill this gap.

3. METHODOLOGY

This study is based on the Muller (1988) "genesis hypothesis" which postulates an inverse association between democracy and income inequality based on two theoretical arguments that centers on (i) a country's years of democratic experience and income inequality; and (ii) income inequality and the stability of democracy. The first hypothesis predicts that a country's accumulated years of democratic experience will have a stronger negative effect on income inequality than the level of democracy that exists at a single point in time, while the second hypothesis assumes that income inequality may have a negative impact on the level of democracy because it reduces the likelihood of the inauguration of democracy. That is, income inequality may have a negative impact on the level of democracy because it reduces the likelihood of the stability of democracy. In the same vein, the critical theory of technology by Kellner (2021) stated that technology is central to human life, which is determined by social relations confined within economic, political, and cultural settings. In view of this, therefore, democracy and (access to) technology is expected to improve human life in the form of provision of opportunities that will result in the reduction of income inequality in society. Both the genesis hypothesis (Muller, 1988) and critical theory (Kellner, 2021) are relevant to the South African democratic experience, which has been in place for almost three decades with the major objective of addressing the problem of deprivation, marginalization, and structural inequality.

Data on income inequality (Gini-coefficient) was sourced from the World Inequality database, while data on access to technology index, inflation rate, export, gross domestic product, and government expenditure covering the period from 1990 to 2021 were sourced from the World

Development Indicator database. The data on the democracy index is obtained from the Freedom House Country and Territory Ratings and Statuses. The baseline model for this study follows the study by Kapingura (2017) and Nazirou *et al.* (2022), which specified the relationship between democracy and inequality as given in equation 1.

$$GINI = f(DEM, ATT, IFR, EXP, GDP, GOE) \tag{1}$$

Where: GINI represents the Gini coefficient which captures income inequality; DEM represents democracy; ATT represents access to technology index; IFR represents inflation rate; EXP represents export; GDP represents gross domestic product; and GOE represents government expenditure on education.

Equation 2 is meant to demonstrate the impact of democracy and access to technology on income inequality in South Africa. The linear function of equation 1 is given in equation 2 as follows:

$$\begin{aligned} \ln GINI_t = & \beta_0 + \beta_1 \ln DEM_t + \beta_2 ATT_t + \beta_3 IFR_t + \beta_4 \ln EXP_t + \beta_5 \ln GDP_t \\ & \beta_6 \ln GOE_t + \mu_t \end{aligned} \tag{2}$$

Where β_0 represents the intercept while $\beta_1 \dots \beta_6$ stands for the coefficient of the various explanatory variables.

The study further describes the model indicating the direction of causation between democracy and income inequality as well as access to technology and income inequality in South Africa.

$$\ln GINI_t = \alpha_0 + \alpha_1 DEM_t + \varepsilon_{1t} \tag{3}$$

$$DEM_t = \beta_0 + \beta_1 \ln GINI_t + \varepsilon_{2t} \tag{4}$$

$$\ln GINI_t = \alpha_0 + \delta_1 ATT_t + \mu_{1t} \tag{5}$$

$$ATT_t = \beta_0 + \rho_1 \ln GINI_t + \mu_{2t} \tag{6}$$

Where $(\alpha_1; \beta_1; \delta_1; \rho_1)$ represent the coefficients of the causation while $(\varepsilon_{1t}; \varepsilon_{2t}; \mu_{1t}; \mu_{2t})$ are the associated error terms.

To determine the extent of causation between media penetration and economic growth in South Africa, this study adopts the Toda-Yamamoto (1995) Granger causality test in line with the specification by Aratuo and Estienne (2019) and Osinubi and Osinubi (2020).

The Toda-Yamamoto Granger causality test is used because of its superiority over the traditional Granger causality test, which allows the study to use the variables at levels irrespective of the order of integration. Also, the optimal lag length (k) of the VAR model is obtained by the appropriate information criteria. While the maximum order of integration (d_{max}) is obtained using the unit root test prior to estimating the Toda-Yamamoto Granger causality test. Toda and Yamamoto (1995) proved that this approach has an asymptotic χ^2 distribution when a $VAR(k + d)_{max}$ model is estimated as:

$$\ln GINI_t = \alpha_0 + \sum_{j=1}^{k+d_{max}} \alpha_1 \ln GINI_{t-j} + \sum_{p=1}^{k+d_{max}} \alpha_2 DEM_{t-p} + \varepsilon_{1t} \tag{7}$$

$$DEM_t = \beta_0 + \sum_{j=1}^{k+d_{max}} \beta_1 DEM_{t-j} + \sum_{p=1}^{k+d_{max}} \beta_2 \ln GINI_{t-p} + \varepsilon_{2t} \quad (8)$$

$$\ln GINI_t = \alpha_0 + \sum_{j=1}^{k+d_{max}} \delta_1 \ln GINI_{t-j} + \sum_{p=1}^{k+d_{max}} \delta_2 ATT_{t-p} + \mu_{1t} \quad (9)$$

$$ATT_t = \beta_0 + \sum_{j=1}^{k+d_{max}} \rho_1 ATT_{t-j} + \sum_{p=1}^{k+d_{max}} \rho_2 \ln GINI_{t-p} + \mu_{2t} \quad (10)$$

Where k is the optimal lag length, d_{max} is the maximum order of integration of the variables, $\alpha_{1,2}$; $\beta_{1,2}$; $\delta_{1,2}$ and $\rho_{1,2}$ represents the coefficients of the VAR model while ε_{1t} ; ε_{2t} ; μ_{1t} and μ_{2t} are the associated error terms of the model which are uncorrelated across and within equations of the model and the d_{max} represents the maximum order of integration of the variables.

Therefore, this study is premised on the following null hypothesis which includes:

$$H_0 : \alpha_1 = \alpha_2 = \dots = \alpha_{2(k+d_{max})} = 0 \text{ (DEM does not Granger cause lnGINI)}$$

$$H_0 : \beta_1 = \beta_2 = \dots = \beta_{2(k+d_{max})} = 0 \text{ (lnGINI does not Granger cause DEM)}$$

$$H_0 : \delta_1 = \delta_2 = \dots = \delta_{2(k+d_{max})} = 0 \text{ (ATT does not Granger cause lnGINI)}$$

$$H_0 : \rho_1 = \rho_2 = \dots = \rho_{2(k+d_{max})} = 0 \text{ (lnGINI does not Granger cause ATT)}$$

4. FINDINGS

The principal component analysis (PCA) is the most appropriate technique to use while converting variables into a single index using important information about these variables to generate a single index (see Osinubi & Osinubi, 2020). Therefore, the access to technology (ATT) index is generated from the weighted average of the numbers of individuals using the internet (as a percentage of the population) (IUI), fixed telephone subscriptions (FTS), fixed telephone subscriptions (per 100 people) (FTSPOP), communications and computers (percentage of service imports) (CCPSI), computer, communications and other services (percentage of commercial service imports) (CCOPCSI), mobile cellular subscriptions (MCS) and mobile cellular subscriptions (per 100 people) (MCSPOP) as specified in the study conducted by the Regional Center for Studies on the Development of the Information Society (2016). Table 1 shows the result of the PCA where the Eigenvalue indicates that CCOPCSI is the most important component of access to technology (ATT) index, and this is further explained by the proportion of the variance explained by the PC1. This shows that PC1 (CCOPCSI) explains 83 percent of the total proportion variance and followed by communications and computers (percentage of service imports) (CCPSI), which explains about 15 percent of the total proportion of the variance, while the mobile cellular subscriptions (per 100 people) (MCSPOP), fixed telephone subscriptions (per 100 people) (FTSPOP), individuals using the internet (as a percentage of the population) (IUI) and mobile cellular subscriptions (MCS) explain less than 1 percent of the total proportion of the variance.

Table 1: Principal Component Analysis

| Principal Component | Eigen values | Proportion explained by PC | Factor Loadings | | | | | | |
|---------------------|--------------|----------------------------|-----------------|-------|-------|--------|-------|-------|--------|
| | | | CCOPCSI | CCPSI | FST | FTSPOP | IUI | MCS | MCSPOP |
| PC1 | 5.81 | 0.83 | 0.40 | 0.41 | -0.26 | -0.36 | 0.40 | 0.40 | 0.39 |
| PC2 | 1.06 | 0.15 | 0.15 | 0.13 | 0.75 | 0.47 | 0.08 | 0.26 | 0.31 |
| PC3 | 0.08 | 0.01 | 0.54 | 0.57 | 0.00 | 0.11 | -0.40 | -0.31 | -0.33 |
| PC4 | 0.05 | 0.00 | 0.04 | 0.07 | 0.09 | 0.15 | 0.81 | -0.29 | -0.47 |
| PC5 | 0.00 | 0.00 | -0.13 | 0.14 | -0.58 | 0.77 | 0.04 | 0.11 | 0.15 |
| PC6 | 0.00 | 0.00 | 0.61 | -0.57 | -0.11 | 0.11 | 0.06 | -0.40 | 0.34 |
| PC7 | 0.00 | 0.00 | 0.36 | -0.37 | -0.07 | 0.10 | -0.08 | 0.66 | -0.54 |

Source: Authors' Computation

Furthermore, the data were subjected to the preliminary tests of Augmented Dickey-Fuller (ADF), Phillips-Perron (PP) as well as the Kwiatkowski-Phillips-Schmidt-Shin (KPSS) where the unit root properties of the data were examined and presented in Table 2. The unit root estimates revealed that the variables were integrated of both order zero and order one, *i.e.*, $I(0)$ and $I(1)$, respectively.

Table 2: Unit Root Test

| Augmented Dickey-Fuller (ADF) Test | | | | Phillips-Perron (PP) Test | | | (KPSS) Test | | |
|------------------------------------|----------|----------------------------|--------|---------------------------|----------------------------|--------|-------------|----------------------------|--------|
| Variable | Level | 1 st Difference | Status | Level | 1 st Difference | Status | Level | 1 st Difference | Status |
| ln(GINI) | -2.700** | - | I(0) | -1.740 | -2.600 | - | 0.900* | - | I(0) |
| ln(DEM) | -3.260** | - | I(0) | -3.150** | - | I(0) | 0.210* | - | I(0) |
| ATT | 3.200 | -3.150** | I(1) | 3.070 | -3.040 | I(1) | 0.670** | 0.660** | I(1) |
| IFR | -3.590** | - | I(0) | -2.990** | - | I(0) | 0.550** | - | I(0) |
| ln(EXP) | -0.710 | -4.540* | I(1) | -0.720 | -4.550* | I(1) | 0.590 | 0.090* | I(1) |
| ln(GDP) | -1.020 | -3.930* | I(1) | -1.080 | -3.680* | I(1) | 0.650 | 0.080* | I(1) |
| ln(GOE) | -0.860 | -4.110* | I(1) | -0.860 | -3.360** | I(1) | 0.670 | 0.080* | I(1) |
| Critical Values | | | | | | | | | |
| 1%* | -3.690 | -3.740 | | -3.690 | -3.710 | | 0.740 | 0.740 | |
| 5%** | -2.970 | -2.990 | | -2.980 | -2.980 | | 0.460 | 0.460 | |
| 10%*** | -2.630 | -2.640 | | -2.630 | -2.630 | | 0.350 | 0.350 | |

Similarly, the maximum lag length for the variables was determined using the Akaike Information Criterion (AIC), Schwartz Information Criterion (SIC), and Hannan-Quinn Information Criterion (HQC). All these criteria suggested a maximum lag length of two (2) lags. Hence, the fully modified least squares (FMOLS) estimate of the impact of democracy and access to technology on income inequality in South Africa is based on a maximum lag length of two (2) lags.

Table 3: Lag Length Selection Criteria

| Endogenous variables: ln (GINI) ln (DEM) ATT IFR ln(EXP) ln(GDP) ln(GOE) | | | | | | |
|--|---------|---------|--------|----------|---------|----------|
| Sample: 1990 2021 | | | | | | |
| Lag | LogL | LR | FPE | AIC | SC | HQ |
| 0 | 39.329 | NA | 1.960 | -2.487 | -2.148 | -2.389 |
| 1 | 201.154 | 224.065 | 3.860 | -11.166 | -8.456 | -10.385 |
| 2 | 284.806 | 70.782* | 7.210* | -13.831* | -8.750* | -12.368* |
| * Indicates lag order selected by the criterion | | | | | | |
| LR: sequential modified LR test statistic (each test at 5% level) | | | | | | |
| FPE: Final prediction error | | | | | | |
| AIC: Akaike Information Criterion | | | | | | |
| SC: Schwarz Information Criterion | | | | | | |
| HQ: Hannan-Quinn Information Criterion | | | | | | |

Source: Authors' Computation

Furthermore, the Johansen Cointegration Test shows that the null hypothesis of no cointegration among the variables used in the study is rejected. Table 2 indicates that there are, at least, three (3) cointegrating equation among the variables used in this study, therefore, the existence of a long-run relationship among the variables used in the model is established.

Table 4: Johansen Cointegration Test

| | | | | |
|--|-------|---------|---------|-------|
| Series: ln (GINI) ln (DEM) ATT IFR ln (EXP) ln (GDP) ln (GOE) | | | | |
| Unrestricted Cointegration Rank Test (Trace) | | | | |
| None* | 0.961 | 222.786 | 125.615 | 0.000 |
| At most 1* | 0.885 | 138.346 | 95.734 | 0.000 |
| At most 2* | 0.763 | 82.015 | 69.819 | 0.004 |
| At most 3 | 0.486 | 44.580 | 47.856 | 0.098 |
| At most 4 | 0.393 | 27.279 | 29.797 | 0.095 |
| At most 5 | 0.347 | 14.311 | 15.495 | 0.075 |
| At most 6 | 0.117 | 3.231 | 3.841 | 0.072 |
| Trace test indicates, at least three (3), cointegrating equation at the 0.05 level | | | | |

Source: Authors' Computation

To study the impact of democracy and access to technology on income inequality in South Africa. Table 5 presents the relationship between democracy and access to technology on income inequality using the fully modified least squares. Specifically, the coefficient of democracy (lnDEM) has a negative impact and is statistically insignificant in reducing income inequality in South Africa ($t = -1.567; p > 0.05$). This suggests that democracy merely provides the platform for the reduction in income inequality in the country, but it is very minimal. Although the negative sign of the coefficient (-0.037) is found, it conforms with the genesis hypothesis (Muller, 1988), which postulates an inverse relationship between democracy and income inequality but does not significantly lead to a reduction in income inequality.

However, the coefficient of access to technology (ATT) has a negative impact and statistically reduces income inequality in South Africa ($t = -4.056$; $p < 0.05$). This implies that a continuous increase in the numbers of individuals using the internet, fixed telephone subscriptions, the rate of the computers and communications gadgets, and the number of mobile cellular subscriptions significantly promote income equality, thereby, leading to a reduction in income inequality in the country. This finding is in line with the previous study by Nawab *et al.* (2020) and Dossou *et al.* (2022), who argue that access to technology leads to a reduction in income inequality. However, it is contrary to the study by Kerkeni and Mnif, (2020) and Tang *et al.* (2022) who finds that technology (innovation) significantly contributes to income inequality in developing countries.

Also, the coefficient of interest rate (IFR) has a positive relationship and significantly exacerbates the challenge of income inequality ($t = 6.020$; $p < 0.05$). This suggests that the cost of capital is very expensive and does not promote easy access to capital which worsens the income inequality gap in the country. Therefore, access to capital is largely skewed in favor of some groups of people rather than all economic agents willing to access capital. This finding is in line with the studies by Husain *et al.* (2020) and Lancastre (2016) which reveals that interest rate promotes high income inequality in favor of the rich, but this is contrary to the study by Fagerstrom (2022) who observes that an increase in interest rate will always lead to a reduction in income inequality especially when such a study is carried out in a panel setting.

Similarly, the study observes that the coefficient of government expenditure on education (lnGOE) has a positive relationship and significantly promotes income inequality in South Africa ($t = 3.045$; $p < 0.05$). This suggests that a unit increase in government expenditure on education leads to about a 0.5% increase in income inequality in South Africa. This, therefore, implies that access to education in the form of increasing school enrolment led to a wide wage gap between the skilled and unskilled workforce (Kerkeni & Mnif, 2020). Hence, the desire to escape the income inequality trap may be the drive to acquire qualitative education in South Africa.

Table 5: Fully Modified Least Squares

| Dependent Variable: ln (GINI) | Coefficients | Standard Error | t - Statistic | Probability |
|-------------------------------|--------------|----------------|---------------|-------------|
| C | -4.250 | 0.654 | -6.494 | 0.000 |
| ln (DEM) | -0.036 | 0.009 | -1.567 | 0.133 |
| ATT | -0.036 | 0.009 | -4.056 | 0.000 |
| IFR | 0.015 | 0.002 | 6.020 | 0.000 |
| ln (EXP) | -0.024 | 0.059 | -0.399 | 0.694 |
| ln (GDP) | -0.272 | 0.187 | -1.455 | 0.006 |
| ln (GOE) | 0.484 | 0.159 | 3.045 | 0.006 |
| R-Squared | 0.780 | | | |
| Adjusted R ² | 0.714 | | | |

Source: Authors' Computation

Furthermore, the choice of the use of Toda-Yamamoto Granger causality test assumes that democracy, access to technology, and income inequality variables are not integrated of order two, $I(2)$. As shown on Table 2, variables are integrated of order zero and order one, *i.e.*, $I(0)$ and $I(1)$. Also, the lag length selection criteria suggest the optimal lag length of two (2) as presented in Table 6 which is the recommended maximum lag length included in the $(k + d_{max})$ order VAR model.

Table 6: Lag Length Selection Criteria

| Endogenous variables: ln (GINI) ln (DEM) ATT | | | | | | |
|---|---------|---------|--------|---------|---------|---------|
| Sample: 1990 2021 | | | | | | |
| Lag | LogL | LR | FPE | AIC | SC | HQ |
| 0 | 14.077 | NA | 7.980 | -0.923 | -0.776 | -0.884 |
| 1 | 85.689 | 119.353 | 4.360 | -6.141 | -5.552 | -5.984 |
| 2 | 100.931 | 21.593* | 2.710* | -6.661* | -5.630* | -6.387* |
| 3 | 108.620 | 8.970 | 3.370 | -6.552 | -5.079 | -6.161 |
| 4 | 113.497 | 4.471 | 5.960 | -6.208 | -4.294 | -5.700 |
| * Indicates lag order selected by the criterion | | | | | | |
| LR: sequential modified LR test statistic (each test at 5% level) | | | | | | |
| FPE: Final prediction error | | | | | | |
| AIC: Akaike Information Criterion | | | | | | |
| SC: Schwarz Information Criterion | | | | | | |
| HQ: Hannan-Quinn Information Criterion | | | | | | |

Source: Authors' Computation

This study employs the Toda-Yamamoto Granger causality test with the major aims of determining the direction of causation as well as whether causation is existent among democracy, access to technology and income inequality in South Africa. Finding from the Toda-Yamamoto Granger causality test reveals that there is no evidence of causation among democracy, access to technology and income inequality in South Africa. Specifically, the study found that income inequality does not Granger-cause democracy ($\chi^2 = 1.876; p > 0.05$) and access to technology ($\chi^2 = 2.552; p > 0.05$). This negates the findings by (Krieger & Meierrieks, 2015; Amir-ud-Din & Khan, 2017) who established that income inequality should negatively Granger-cause democracy. Also, this study finds that democracy does not Granger-cause income inequality ($\chi^2 = 0.572; p > 0.05$) and access to technology ($\chi^2 = 0.585; p > 0.05$). Similarly, access to technology does not Granger-cause income inequality ($\chi^2 = 0.237; p > 0.05$) and democracy ($\chi^2 = 1.856; p > 0.05$) this finding negates the study by Kerkeni and Mnif, (2020) who find technology to be a causative factor of income inequality. This study failed to observe the existence of any form of feedback among them: democracy, access to technology and income inequality. This finding further suggests that a trilemma manifests in deepening the democratic process, rendering technology inaccessible, coupled with the persistence of income inequality in South Africa; all three phenomena function independently of each other. Therefore, issues relating to democracy, access to technology and income inequality must be treated holistically because they are mutually

exclusive in South Africa without any being the cause of another which greatly support the neutrality hypothesis.

Table 7: Toda-Yamamoto Bivariate Ganger Causality Test between Media Penetration and Economic Growth in South Africa

| Explained Variable | Explanatory Variable | Lag Length | Chi-Squared | P-Value | Direction of Causation | Remarks |
|--------------------|----------------------|------------|-------------|---------|------------------------|-----------------------|
| ln (GINI) | ln (DEM) | 2 | 1.876 | 0.391 | No Causality | Neutrality Hypothesis |
| | ATT | 2 | 2.552 | 0.279 | No Causality | Neutrality Hypothesis |
| ln (DEM) | ln (GINI) | 2 | 0.572 | 0.751 | No Causality | Neutrality Hypothesis |
| | ATT | 2 | 0.585 | 0.746 | No Causality | Neutrality Hypothesis |
| ATT | ln (GINI) | 2 | 0.237 | 0.888 | No Causality | Neutrality Hypothesis |
| | ln (DEM) | 2 | 1.856 | 0.395 | No Causality | Neutrality Hypothesis |

Source: Authors' Computation

5.CONCLUSION AND RECOMMENDATION

The study concludes that access to technology significantly contributes to the reduction in income inequality in South Africa much more than the years of democratic practice. This goes a long way to suggest that the benefits of the day-to-day use and access to technology overwhelms the democratic dividends, policies, and measures of addressing the problem of income inequality in South Africa. Also, high cost of capital in the form of high interest rates and government expenditure on education aggravates the problem of income inequality while the rising economic growth significantly helps to ameliorate the problem of income inequality in South Africa. The study established the existence of democracy, access to technology and income inequality trilemma but realized that all these phenomena are independent of each other and found no evidence to support that any one of them is responsible for the cause of another and neither is there any feedback causation from another. The study recommends that government should continue to invest in the use of technology and provide an enabling environment and infrastructure that will aid the continuous use and access to technology in South Africa, thereby, resulting in a drastic decline in income inequality in the country.

REFERENCE

Amir-ud-Din, R. & Khan, R. E. A. (2017). Democracy, income inequality and economic growth nexus: The case of Pakistan. *Pakistan Journal of Commerce and Social Sciences*, 11(1), 205-220.

Aratuo, D. N. & Etienne, X. L. (2019). Industry Level Analysis of Tourism –Economic Growth in the United States. *Tourism Management*, 70, 333-340.

Asongu, S.A., Odhiambo, N. M. & Rahman, M. (2023). Information Technology, Inequality, and Adult Literacy in Developing Countries. *Journal of the Knowledge Economy*. <https://doi.org/10.1007/s13132-023-01307-8>

Asongu, S., Orim, S. -M. & Nting, R. T. (2019). Inequality, information technology and inclusive education in Sub-Saharan Africa. *MPRA Paper No. 101103*.

Asongu, S. A. & Odhiambo, N. M. (2018). What an enhancing information and communication technology has affected inequality in Africa for sustainable development: An empirical investigation. *African Governance and Development Working Paper No. WP/18/054*.

Bahamonde, H. & Trasberg, M. (2021). Inclusive institutions, unequal outcomes: Democracy. State capacity and income inequality. *European Journal of Political Economy*, 70, 1-21.

Bhorat, H. & Van Der Westhuizen, C. (2012). Poverty, inequality and the nature of economic growth in South Africa. *Development Policy Research Unit Working Paper 12/151*, University of Cape Town, South Africa.

Clague, C., Keefer, P., Knack, S. & Olson, M. (1996). Property and contract rights in autocracies and democracies. *Journal of Economic Growth*, 1, 243-276.

Das, G. G. & Drine, I. (2020). Distance from the technology frontier: How could Africa catch-up via socio-institutional factors and human capital? *Technological Forecasting & Social Change*, 150 (c).

Dossou, T. M. M., Kambaye, E. N., Berhe, M. W. & Asongu, S. A. (2022). Does e-governance reduce income inequality in Sub-Saharan Africa? Evidence from dynamic panel. *European Xtramile Centre of African Studies Working Paper WP/22/066*.

European Commission. (2019). Innovation. https://ec.europa.eu/growth/industry/innovation_en.

ESCAP. (2017). Inequality in Asia and the Pacific, 63-77.

Gaventa, J. & Runciman, C. (2016). Untangling economic and political inequality: The case of South Africa. *World Social Science Report*, UNESCO.

Gossel, S. (2022). FDI and inequality in Sub-Saharan Africa: Does democracy matter? *International Journal of Emerging Market*. <https://doi.org/10.1108/IJOEM-03-2021-0321>.

Graham, V. (2020). South Africa's democracy: The quality of political participation over 25 years. *Journal of African Elections*, 19(1), 25-51.

-
- Hanna, A. (2022). Review of Keller, D. (2021). *Technology and democracy: Toward a critical theory of digital technologies, technopolitics and technocapitalism*. Wiesbaden: Springer.
- Hartwell, C. A., Horvath, R., Horvathova, E. & Popova, O. (2019). *Democratic institutions, natural resources and income inequality*. Bournemouth University, U. K.
- Heimberger, P. (2019). Does economic globalization affect income inequality? A meta-analysis. *The Vienna Institute for International Economic Studies Working Paper No. 165*.
- Horrocks, I. & Pratchett, L. (1998). *Democracy and new technology*. Nottingham Trent University, Nottingham, UK.
- International Telecommunication Union (2021). *Measuring Digital Development: Facts and Figures*. Geneva, Switzerland.
- Kapingura, F. M. (2017). Financial sector development and income inequality in South Africa. *South African Journal of Economic and Management Studies*, 8(4), 1-18.
- Keeton, G. (2014). Inequality in South Africa. *The Journal of the Helen Suzman Foundation*, 74, 26-31.
- Keller, D. (2021). *Technology and democracy: Toward a critical theory of digital technologies, technopolitics and technocapitalism*. Wiesbaden: Springer.
- Kerkeni, A. & Mnif, S. (2020). Income inequality: A pursuit race between education and technology. *Atlantic Review of Economics*, 5(2), 1-19.
- Kharlamova, G., Stavvytsky, A. & Zarotiadis, G. (2018). The impact of technological changes on income inequality: The EU States case study. *Journal of International Studies*, 11(2), 76-94.
- Krieger, T. & Meierrieks, D. (2015). Political capitalism: The interaction between income inequality, economic freedom and democracy. *CESifo Working Paper No. 5681*.
- Kudasheva, T., Kunitsa, S. & Mukhamediyev, B. (2015). Effect of access to education and information communication technology on income inequality in Kazakhstan. *Procedia-Social and Behavioral Sciences*, 191, 940-947.
- Levy, B., Hirsch, A., Naidoo, V. & Nxele, M. (2021). *South Africa: When strong institutions and massive inequality collapse*. Carnegie Endowment for International Peace, Washington D. C.
- May, J., Sulla, V. & Zikhala, P. (2016). *South African poverty and inequality assessment discussion note*. Available at: [World-Bank-South-Africa-CN-Discussion-Note-28-Jan-2016.pdf](https://www.ukzn.ac.za/wp-content/uploads/2016/01/World-Bank-South-Africa-CN-Discussion-Note-28-Jan-2016.pdf) (ukzn.ac.za) (Accessed on 26 April 2023).
-

-
- Mokgobu, E. P. (2005). South African democratic politics of technology. University of Pretoria. Pretoria.
- Muller, E. D. (1988). Democracy, economic development, and income inequality. *American Sociological Review*, 53(1), 50-68.
- Nawab, K., Sahaib, I., Akhtar, W., Rizwan, K. & Tahir, A. (2020). The influence of information communication technology development on income inequality. *Artech Journal of Current Business and Financial Affairs*, 1(1), 11-18.
- Nazirou, S. C., Mousa, D. S. M. & Afolabi, T. A. (2022). The impact of economic freedom and democracy on income inequality: Empirical evidence from Sub-Saharan African Countries. *Archives of Business Research*, 10(3), 217-234.
- Ndoya, H. & Asongu, S. A. (2022). Digital divide, globalization, and income inequality in Sub-Saharan African countries: Analyzing cross country heterogeneity. *Social Responsibility Journal*. <https://doi.org/10.1108/SRJ-07-2022-0277>.
- Nguyen, H. T. (2021). Financial development, income inequality and the role of democracy: Evidence from Vietnam. *Journal of Asian Finance, Economics and Business*, 8(11), 21-28.
- Nikoloski, Z. (2015). Democracy and income inequality: Revisiting the long-and short-term relationship. *Review of Economics and Institutions*, 6(2), 1-15.
- Odeyemi, T. D. (2009). Social inequalities and the South African ICT access policy agendas. *International Journal of Communications*, 3, 151-168.
- Olson, M. (1993). Dictatorship, democracy, and development. *American Political Science Review*, 87, 567-576.
- Osinubi, T. O. & Osunubi, O. B. (2020). Inclusive Growth in Tourism-Led Growth Hypothesis: Evidence from Nigeria. *African Journal of Economic Review*, 8(2), 141-160.
- Pfotenhauer, S. & Jasanoff, S. (2017). Panacea or diagnosis? Imaginaries of innovation and the MIT model in three political cultures. *Social Studies of Science*, 47(6), 783-810.
- Regional Center for Studies on the Development of the Information Society (2016). Methodological framework for measurement of access and use of information and communication technologies (ICT) in education: Concept note. Sao Paulo, Brazil.
- Tang, T., Cuesta, L., Tillaguango, B., Alvarado, R., Rehman, A., Bravo-Benavides, D. & Zarate, N. (2022). Causal link between technological innovation and inequality moderated by public spending, manufacturing, agricultural employment, and export diversification. *Sustainability*, 14, 1-25.
-

Tchamyou, V. S., Erreygers, G. & Cassimon, D. (2018). Inequality, ICT, and financial access in Africa. *African Governance and Development Institute Working Paper No. WP/18/048*.

Toda, H. Y. & Yamamoto, T. (1995). Statistical Inference in Vector Autoregression with Possibly Integrated Process. *Journal of Econometrics*, 66(1-2), 225-250.

Trinugroho, I., Achsanta, A. F., Pamungkas, P., Saputro, N. & Yuniarti, S. (2023). Democracy, economic growth, and income inequality: Evidence from province level data. *Cogent Economics and Finance*, 11(1), 1-12.

Acknowledgement:

We acknowledge the National Electronic Media Institute of South Africa (NEMISA), Johannesburg for Sponsoring this research work.

SSIRC 2023-117**DIMENSIONS OF ORGANISATIONAL CITIZENSHIP BEHAVIOURS AFFECTING EMPLOYEES' PERCEPTIONS OF SUCCESSFUL CAREERS IN A HIGHER EDUCATION INSTITUTION IN SOUTH AFRICA****J.D. Ngo Ndjama**

Vaal University of technology, South Africa

J. Van Der Westhuizen

Vaal University of Technology, South Africa

ABSTRACT

Based on the theory of Conservation of Resources, linear relationships between the five dimensions of organisational citizenship behaviour and career success were explained by the fact that people who exhibit organisational citizenship behaviour at work are more likely to perceive their careers as successful. This theory specifies how much people are willing to use the resources provided by the organisation to demonstrate altruism, conscientiousness, sportsmanship, courtesy, and civic virtue that will, in turn, help them view their careers as successful. Therefore, this study's primary goal is to examine how the five dimensions of organisational citizenship behaviour may affect employees' perceptions of their careers. Grounded on the post-positivist view, this study used a quantitative approach, descriptive design, and a cross-sectional study to test the hypotheses. This research applied a survey method; hence, the career success scale and the organisational citizenship behaviour scale were used to collect data from 253 male and female participants out of 405 through a convenience sample. Using SPSS, frequency, percentage, and mean were among the descriptive statistics. At the same time, inferential statistics included correlation and regression analyses. These results revealed that employees who displayed sportsmanship and civic virtue behaviours within an organisation were likelier to perceive their careers as successful. The more excellent employees display sportsmanship and civic virtue behaviours, the higher the perceptions of their careers as successful. Thus, managers should adopt flat organisational structures, include OCB in their performance appraisal system, and develop a fair reward system for such behaviours for employees to perceive their careers as successful.

KEYWORDS: citizenship behaviours, career satisfaction, altruism, courteousness, sportsmanship, conscientiousness, civic virtue

1. INTRODUCTION

Modern business environments face many challenges from global competition and technological advancements. To keep up with the rapid pace of change and emerging trends, organisations are looking for ways to change the behaviour of their employees in these challenging circumstances so that they can display a positive attitude. Most management academics concur that actions outside of roles that promote discretion, cooperation, and innovation are essential for organisational effectiveness (Khaola & Coldwell, 2017). Zçelika and Findiklib (2014) contend that

organisations must rely on employees' contributions above and beyond the call of duty to operate efficiently because working under changing conditions has become an essential aspect of organisations. Of these, organisational citizenship behaviour (OCB) is the most well-known. Verlinden (2022) expresses that "organisational citizenship behaviour" refers to all the helpful and productive employee actions and behaviours that do not fall under their official job descriptions. It consists of anything an employee does voluntarily to support their coworkers and advance the organisation (Verlinden, 2022). OCB has been a subject of interest for at least the past three decades and a significant research area for academics and practitioners (Mitonga-Monga, 2019). Even though they may not always be the best performers, employees who engage in OCB are known for going "the extra mile" or "above and beyond" what is necessary to perform a merely satisfactory job (Thiruvankadam & Durairaj, 2017).

The pursuit of subjective career success, the individual appraisal and experience of achieving personally meaningful career outcomes, typically measured in terms of career satisfaction, has drawn increasing attention from scholars. For Memoona, Atif and Sara (2015), career success (CS) is a positive psychosomatic emotion and the accumulation of work achievements that result from professional experience. Commenting on the definition, Metelski (2019) argues that accomplishing long-term professional goals that people set for themselves is the primary metric of CS. Wangsapraja and Gatari (2020:509) define CS as "individual satisfaction derived from the intrinsic and extrinsic aspects of a career, including all career goals, income, advancement, and career development". Employees who have high CS feel satisfied with their achievements, goals fulfilment, income, career advancement, and ability development during their careers (Wangsapraja & Gatari, 2020). Career success is associated with benefits to the individual, including increased life satisfaction, overall subjective well-being, and general health (Sironi 2019).

Despite the widespread agreement that OCB contributes to organisational effectiveness, studies on OCB outcomes are less common than those on its causative factors (Harari, Reaves, and Viswesvaran 2016). Additionally, there is a dearth of literature concerning its practice in the higher education sector. Similarly, Abdullah *et al.* (2019) highlighted that OCB has mainly been overlooked by researchers, thus explaining the limited understanding of the issues regarding citizenship behaviours within the public sector. As a result, it has been challenging to identify a method that will effectively promote OCB in organisations.

On the other hand, CS is discussed in the literature using a variety of approaches depending on the field of study, making it challenging to quantify and evaluate (Pico-Saltos, Bravo-Montero, Montalván-Burbano, Garzá & Redchuk, 2021). This study focuses on academics' CS, an understudied variable, to address the lack of evidence surrounding the broader impact on higher education institutions. From its debut, the term workers' CS has been emphasised in the writings of numerous experts; industry professionals and academics both use the phrase CS in their discussions, but agreement on the best strategy for helping employees and businesses achieve it has proven elusive (Alzyoud, 2017). Harry, Dodd and Chinyamurindi (2019) make the case for more empirical research on the construct of CS in organisations in developing nations like South Africa as a prelude to interventions that support workers in adjusting. Notably, the issues

surrounding CS receive little attention. A literature review on OCB and CS alludes to more studies on the constructs. Furthermore, to build a strong relationship between employees and an organisation, organisations must ensure high levels of OCB and CS among employees. Owing to the developments in organisational behaviours, strategic management, industrial relations and human resource management, this study aims to identify the dimensions of OCB that influence how South African higher education employees perceive having successful careers.

2. LITERATURE REVIEW

2.1 Organisational Citizenship Behaviours

Given the dynamic nature of the global marketplace and the speed at which it changes, employing people likely to exhibit a high degree of OCB is crucial for an organisation's continued success—defined initially by Organ (1988: 4) as “the behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation”. Having known to an extent what OCB is all about, it is vital to recapitulate the three critical elements of OCB, namely (1) discretionary behaviours, not part of the job description and performed because of personal choice; (2) going above and beyond enforceable requirements of job descriptions; and (3) contributing positively to overall organisational effectiveness (Nguyen, Chang, Rowley & Japutra 2016:6). Since workers had to accomplish more with fewer resources, OCB became crucial in a variety of industries and organisations. Işık (2021) notes that it goes beyond individual endeavour and refers to members fulfilling their tasks enthusiastically and helping others voluntarily to increase their performance. In this regard, Bateman and Organ (1983) list the following as the top five organisational citizenship practices:

- a) Altruism is the act of a worker assisting another worker without anticipating anything in return.
- b) When an employee acts with courtesy and consideration toward other employees, they are being courteous.
- c) Sportsmanship is handling unexpected setbacks or negative surprises while maintaining positive behaviour.
- d) Consciousness is an attitude that goes above and beyond the call of duty and requires a certain amount of restraint and discipline.
- e) Civic virtue refers to workers supporting their employer even when not performing their duties.

In the literature, there is a broad consensus that OCB impacts the effectiveness of the organisation for several reasons, including increasing management output, decreasing the need to stretch limited resources, and fostering an atmosphere that boosts employee morale (Sadeghi, Ahmadi & Yazdi, 2016). The study by Abdullah, Marican and Kamil (2019) demonstrated that operations can be managed effectively and that better, more effective, and more efficient services can be provided. Chamisa, Mjoli, and Mhlanga (2020) remark that OCB fosters innovation and growth by addressing and accommodating the organisation's evolving needs.

2.2 Career Success

Success is a function of who people are, what they stand for, and what they believe success to be; money may be the issue for some people, while family, friends, job, religion, or education may be for others (Burgstahler, 2012). However, this study considers success as achieving individuals' own unique goals. The traditional definition of CS is the sum of one's positive job-related and psychological outcomes attributable to one's work experiences, whether externally verified or internally perceived. For Tremblay, Dahan and Gianecchini (2014), it can have at least five distinct components, including those that are monetary, hierarchical, interpersonal, occupational, and life related. This conventional distinction entails objective and subjective elements of CS (de Oliveira, Melo-Silva, Taveira & Postigo, 2019). Muchtar and Qamariah (2023) resonate that CS is based on personal responsibilities, not just salary or promotion, but also psychological success, which is a sense of satisfaction for a job well done. Likewise, Urquijo *et al.* (2019) argue that objective CS is defined as an externally visible criterion and intrinsic PCS as a person's subjective sense of accomplishment and career satisfaction. Hence, one can objectively define CS by employing observable and quantifiable markers like pay, promotion, and the social standing of a profession (Metelski, 2019). Similarly, a person's success in their career that is visible to others is said to be external. External factors are crucial for an employee to succeed professionally (Farla, Perizade, Zunaidah & Andriana, 2022). At the same time, the most common way that subjective assessments of CS are expressed is in terms of job satisfaction. This is because an individual who feels happy with many aspects of their job is likelier to believe they have succeeded in their career (Metelski, 2019). The study of Trambly *et al.* (2014) support the idea that subjective CS may include not just work but also life, such as employees' life beyond their job role. Farla *et al.* (2022) argue that an abstract reward in the form of satisfaction or a sense of value placed on oneself because of receiving an award is an intrinsic factor. The author concludes that since an objective career disregards people's subjective responses to their jobs, objective CS alone cannot adequately describe overall CS.

The benefits of CS go beyond the individual worker; therefore, it benefits employees as well as companies and the larger economy. Employers have a vested interest in their happiness in that employees who are satisfied with their careers are less likely to leave their jobs (Bermingham, Nathwani & Van Essen-Fishman, 2020). According to Trivellas, Kakkos, Blanas, and Santouridis (2015), satisfied employees are more likely to perform effectively, and other studies have suggested that CS positively affects a company's outcomes. Employees' success ultimately contributes to organisational success because they play a crucial role in a firm's operational performance, increasing financial performance, so CS is positively associated with individuals and organisations (Memoona *et al.*, 2015).

3. THEORETICAL FRAMEWORK

The relationship between OCB and CS draws on the theory of Conservation of Resources (COR) developed by Hobfoll (1989) as an overarching theoretical framework for enriching the understanding of the constructs. According to Abdullah *et al.* (2019), individuals are motivated to obtain, retain, foster, and protect valuable resources by preventing them from any loss. Resources

should include four categories: objects, conditions, people, and energies (Abdullah et al., 2019). Researchers such as Karam (2011) and Liu et al. (2017) have employed COR theory to explain the phenomenon of OCB. Conditions are work conditions, which are regarded as resources to the extent that the individual finds them significant and valuable (seniority at work), as opposed to object resources, which are valued universally due to their physical nature, such as tools for the workplace (Spanouli & Hofmans, 2020). On the other hand, personal characteristics are innate to the individual and help people fend off or manage a loss of resources (self-efficacy) (Spanouli & Hofmans, 2020). Because people frequently invest energy resources to acquire other valuable resources, they have an instrumental value: time. The theory of COR stipulates that those with fewer resources are more likely not to exhibit OCB at work, whereas those with more resources are more likely to do so. The linear relationships between the five dimensions of OCB and subjective CS (a person's perception of their career) are explained by the fact that people who exhibit OCB at work are more likely to perceive their careers as successful. The COR specifies how much people are willing to use the resources (objects, conditions, people, and energies) provided by the organisation to demonstrate OCB, which will help them view their careers as successful and determine how much value they place on those resources. However, Muchtar and Qamariah (2023) assert that employees no longer solely rely on the organisation to provide them with psychological fulfilment in their careers; instead, they actively manage their careers and take charge of their destiny by building their resources.

The person-environment fit theory is one of the theoretical frameworks explaining this anticipated connection. When qualities are well matched, there is "compatibility between an individual and a work environment." This is what PE fit is. According to the person-environment fit theory, people look for organisations that provide resources and rewards that align with their beliefs and interests. According to the principle of person-environment fit, these people are drawn to employment whose demands and needs match their strengths and skills (Tremblay et al., 2014).

CONCEPTUAL FRAMEWORK AND HYPOTHESES

The following conceptual framework is developed.

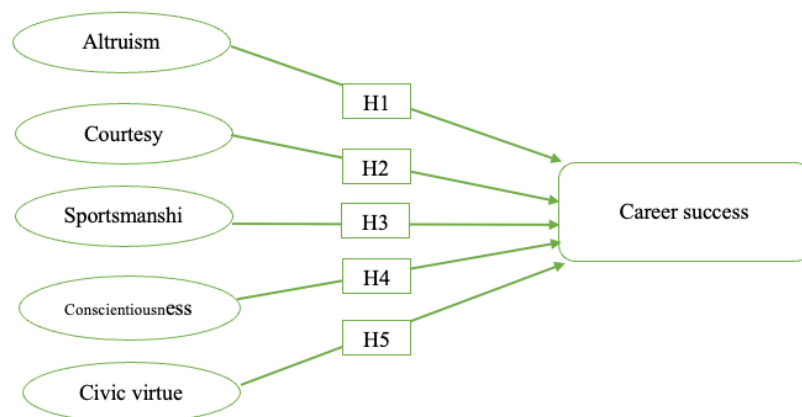


Figure 1: Conceptual research model illustrating the relationship between the dimensions of organisational citizenship behaviours (OCB) and career success.

Based on the literature, a framework is conceptualised, and the following five hypotheses are developed:

H1: A significant relationship exists between altruism and career success.

H2: A meaningful relationship exists between courtesy and career success.

H3: A meaningful relationship exists between sportsmanship and career success.

H4: A significant relationship exists between conscientiousness and career success.

H5: A meaningful relationship exists between civic virtue and career success.

4. RESEARCH METHODOLOGY

Since this study is expected to be objective, hypothesis-driven, and measurable, post-positivism is the research paradigm chosen. A quantitative descriptive research methodology was used to comprehend how academics experienced OCB and CS. This study's main goals were to identify the dimensions of OCB that affect CS. This was accomplished by gathering data from 253 participants out of 405 through convenience sampling.

4.1 Data collection instrument

The information was gathered using a structured questionnaire that was threefold. The first section gathered respondents' demographic information such as gender, age, level of education, and tenure and was assessed using multiple choice statements. The second section described the five dimensions of OCB through the twenty-four items developed by Podsakoff, MacKenzie, Moorman, and Fetter (1990). Altruism (five items), conscientiousness (five items), sportsmanship (five items), courtesy (five items), and civic virtue (four items) were among the five dimensions of OCB identified by Organ (1988). The third section presented the Career Satisfaction Scale (CSS), developed by Greenhaus, Parasuraman and Wormley (1990). This measurement consists of five statements that evaluate career satisfaction considering various criteria, including career goals, financial goals, and promotion goals. On a five-point Likert scale (1 = strongly disagree, 5 = strongly agree), the participants pointed out the statements that best describe their compatibility with the concepts of OCB and CS. Data were analysed using SPSS 27.0. To assess the relationship between the five dimensions of OCB and CS, Karl Pearson's correlation coefficient r was performed, as well as hierarchical multiple regression analysis.

5. RESULTS

5.1 Reliability coefficients of the scales

OCB and CS scales' reliability coefficients produced satisfactory results (0.821 and 0.918, respectively). As values exceeded the 0.7 benchmarks, these values suggest a reliable instrument.

Table 1: Reliability coefficients of the scales

| Sections | Number of items | Number of items deleted | Cronbach's alpha |
|-----------|-----------------|-------------------------|------------------|
| OCB scale | 24 | 0 | .821 |
| CS scale | 5 | 0 | .918 |

5.2 Descriptive statistics

5.2.1 Sample's demographic profile

A descriptive analysis using means was computed to analyse the sample's demographic profile, summarised in Table 2.

Table 2: The sample's demographic profile

| Demographics | Distributions | | | | | |
|--------------------|---|--|--|---|--|---|
| Gender | Male n=151; 59.7% | Female n=102; 40.3% | | | | |
| Age | under 30 n = 38; 15.1% | 30-39 n =90; 35.7% | 40-49 n = 68; 27.0% | 50-59 n = 40. 15.9 % | 60 years and over n = 16; 6.3% | |
| Work experience | less than five years n = 54; 21.6% | 5 to 10 years n = 85; 34.0% | more than 10 years n = 111; 44.4% | | | |
| Level of education | Matric n=0 0% | Certificate n=0 0% | Diploma n = 2. 0.8% | Bachelor's degree/ Honours n = 74; 29.4% | Master's degree n = 123. 48.8% | Doctorate/ PhD n = 53. 20.9% |
| Job grade levels | level 4 (Executive Deans) n = 2. 0.8% | level 5 (Head of Departments & professors) n = 8; 3.2% | level 6 (associate professors) n = 6. 2.4% | level 7 (senior lecturers) n = 45; 17.9% | level 8 (lecturers) n = 163. 64.7% | level 9 (Junior lecturers & lab technicians) n= 28. 11.1% |

The results in Table 2 revealed the following:

Firstly, male participants in the study outnumbered female ones.

Secondly, the age group of respondents between 30 and 39 was the largest, followed by those between 40 and 49. The third category of respondents included those between the ages of 50 and 59, followed by those under 30. The lowest percentage was reported by respondents who were 60 years of age or older.

Thirdly, most respondents had more than ten years of work experience, followed by the subcategory of respondents with five to ten years of experience, and finally, the subcategory of respondents with less than five years of experience.

Fourthly, a Master's degree was the most common degree held by respondents, followed by a Bachelor's degree or honours, a Doctorate or PhD, and then a Diploma.

Lastly, the findings showed that level 8 lecturers, level 7 senior lecturers, and level 9 received the highest percentage (junior lecturers and lab technicians). Level 4 (EDs), Level 6 (Associate Professors), and Level 5 had the lowest rates (HoDs & professors).

5.2.2 Descriptive analysis of the OCB scale

A descriptive analysis using means was computed and presented in Table 3 to analyse employees' perceptions of the OCB.

Table 3: Organisational Citizenship Behaviours scale

| Item description | Mean | Std. deviation |
|---|------|----------------|
| Altruism | | |
| 1. I help others who have heavy workloads | 3.77 | .855 |
| 2. I am always ready to lend a helping hand to those around me | 4.16 | .650 |
| 3. I help others who have been absent | 3.86 | .902 |
| 4. I willingly help others who have work-related problems | 4.04 | .725 |
| 5. I help orient new people even though it is not required | 3.97 | .893 |
| Conscientiousness | | |
| 6. I am one of the most conscientious employees | 4.02 | .690 |
| 7. I believe in giving an honest day's work for an honest day's pay | 4.26 | .621 |
| 8. My attendance at work is above the norm | 4.25 | .731 |
| 9. I do not take extra breaks | 3.93 | .921 |
| 10. I obey the institution's rules and regulations even when no one is watching | 4.23 | .749 |

| Item description | Mean | Std. deviation |
|--|------|----------------|
| Sportsmanship | | |
| 11. I am the classic “squeaky wheel” that permanently needs greasing | 2.32 | 1.018 |
| 12. I consume much time complaining about trivial matters | 1.82 | .884 |
| 13. I tend to make “mountains out of molehills” | 1.83 | .911 |
| 14. I always focus on what’s wrong rather than the positive side | 1.62 | .796 |
| 15. I always find fault with what the institution is doing | 1.89 | .949 |
| Courtesy | | |
| 16. I try to avoid creating problems for co-workers | 4.23 | .855 |
| 17. I consider the impact of my actions on co-workers | 4.32 | .709 |
| 18. I do not abuse the rights of others | 4.35 | .766 |
| 19. I take steps to try to prevent problems with other employees | 4.26 | .768 |
| 20. I am mindful of how my behaviours affect other people’s jobs | 4.32 | .700 |
| Civic virtue | | |
| 21. I keep abreast of changes in this institution | 3.84 | .734 |
| 22. I attend meetings that are not mandatory but are considered important | 3.59 | .966 |
| 23. I attend functions that are not required but help the institution's image | 3.13 | 1.059 |
| 24. I read and keep up with the institution announcements, memos and so on | 3.81 | .869 |
| Valid N =253 | | |
| 1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly agree | | |

Results in Table 3 show that OCB employees in this organisation exhibit altruistic (helping) behaviour because the means are equal to or nearly equal to 4=agree. As the means of the five statements are above 4, it can be established that employees in this organisation frequently exhibit conscientiousness, one of the citizenship behaviours. As respondents strongly agree that they show this type of behaviour in their current organisation, it appears that employees in this organisation frequently display sportsmanship behaviour (on a reverse scoring) as one of the OCB. In the above results, strongly disagree would attract a score of 5, disagree would be 4, neutral still equals 3, agree becomes two and strongly agree = 1. It can be concluded that in this organisation, showing

courtesy is the best example of shared citizenship. The methods above suggest that this organisation's employees covertly exhibit civic virtue behaviours every day.

5.2.3 Descriptive analysis of CS scale

An analysis using descriptive means was performed to examine how employees felt about the success of their careers, as displayed in Table 4.

Table 4: Career Success Scale

| Item description | Mean | Std. deviation |
|--|------|----------------|
| 1. I am satisfied with the success I have achieved in my career | 3.54 | 1.135 |
| 2. I am satisfied with the progress I have made towards meeting my overall career goals | 3.62 | 1.035 |
| 3. I am satisfied with the progress I have made towards meeting my goals for income | 3.16 | 1.202 |
| 4. I am satisfied with the progress I have made towards meeting my goals for advancement | 3.36 | 1.084 |
| 5. I am satisfied with the progress I have made towards meeting my goals for the development of new skills | 3.57 | 1.031 |
| Valid N =253 | | |
| 1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly agree | | |

From Table 4, it can be deduced that employees of this organisation have ambiguous perceptions about CS (means = 3 = neutral). They needed to figure out the progress they had made towards meeting their goals for income and advancement. This may be explained by the fact that only some South African academics can honestly assess their careers' success since publications and international recognition are the primary indicators of success. Similarly, Long and McGinnis's (1993) historical analyses established that the number of publications is the most crucial element in academics' careers. On the other hand, they were satisfied with the progress made towards meeting their goals for developing new skills, career goals and trade in general.

5.3 Correlations

The data were subjected to Pearson product-moment correlation analysis to specify the relationship among the variables, and the results are reported in Table 5.

Table 5: Correlation between the five dimensions of organisational citizenship behaviour and career success

| | | ALT | CONS | SPORTS | COURT | CIV | CS |
|---------------|-----------------|--------|---------|---------|--------|--------|----|
| ALT | PC | 1 | | | | | |
| | Sig. (2-tailed) | | | | | | |
| CONS | PC | .584** | 1 | | | | |
| | Sig. (2-tailed) | .005 | | | | | |
| SPORTS | PC | -.049 | -.263** | 1 | | | |
| | Sig. (2-tailed) | .439 | .000 | | | | |
| COURT | PC | .138* | .451** | -.185** | 1 | | |
| | Sig. (2-tailed) | .029 | .000 | .003 | | | |
| CIV | PC | .312** | .417** | -.085 | .206** | 1 | |
| | Sig. (2-tailed) | .000 | .000 | .179 | .001 | | |
| CS | PC | .153 | .136* | -.190** | -.029 | .232** | 1 |
| | Sig. (2-tailed) | .015 | .015 | .002 | .651 | .000 | |

PC= Pearson Correlation

Sig= significant

** Sig

at p< 0.05

ALT= altruism; CONS= conscientiousness; SPORTS= sportsmanship; COURT= courtesy; CIV= civic virtue; and CS= career success.

As can be seen from Table 5, the Pearson correlation coefficient results indicated some positive linear relationships, ranging from $r= 0.136$ to $r= 0.232$ at a $p0.01$ level of significance, suggesting that altruism, conscientiousness, and civic virtue are positively correlated with CS. Sportsmanship and CS showed a significant correlation ($r= -0.190$; $p0.05$); however, it indicated negative linear associations between the two variables. It is worth mentioning that the numerical scoring scale runs in the opposite direction for sportsmanship (reverse scoring). As a response, it can be concluded that sportsmanship is also positively related to CS. The correlations revealed minor effects regarding their practical significance regarding effect sizes. These correlations show that

employees' CS appears to be correlated with the frequency with which they exhibit OCB, like altruism, sportsmanship, conscientiousness, and civic virtue. Based on the literature, Zhang, Fang, Luan, Chen, and Peng (2022) revealed a favourable relationship between OCB and subjective CS. The authors explained that when engaging in OCB, employees may feel satisfied with their careers. The results may indicate that helping others is a natural human behaviour that makes people happy. Assisting organisations or other workers at work can result in CS (Zhang et al., 2022; Post, 2005). On the other hand, the relationship between courtesy and CS was not statistically significant ($r = -.029$; $p > 0.05$).

5.4 Regression analysis

In Models 1,2,3,4, and 5, the dimensions of OCB, namely altruism, conscientiousness, sportsmanship, courtesy, and civic virtue, were entered into the regression models (using linear regression analysis) as independent variables, and CS was entered as the dependent variable.

Table 6: Regression analysis with the five dimensions of organisational citizenship behaviour and career success

| Models | Dependent variable: CS | Standardised Coefficients Beta | t | Sig. | R ² | Adj R ² | Collinearity Statistics | |
|----------------|---------------------------|--------------------------------------|------------|--------|----------------|-----------------------|-------------------------|-------|
| | | | | | | | Tol | VIF |
| | (Constant) | | 5.172 | .000 | .103 | .085 | | |
| Model 1 | ALT | .097 | 1.275 | .203 | | | .624 | 1.603 |
| Model 2 | CON | -.005 | -.061 | .951 | | | .458 | 2.182 |
| Model 3 | SPO | -.190 | - 3.017 | .003** | | | .911 | 1.097 |
| Model 4 | COU | -.118 | - 1.723 | .086 | | | .769 | 1.301 |
| Model 5 | CIV | .212 | 3.182 | .002** | | | .817 | 1.223 |

a). Independent variable: ALT (Altruism), CON (Conscientiousness), SPO (Sportsmanship), COU (Courtesy), CIV (Civic virtue).

b) Dependent variable: CS (Career success)

c) ** significant at $p < 0.05$

The results in Table 6 showed a statistical significance concerning the influence of two OCB dimensions, namely sportsmanship and civic virtue ($p = 0.003$; $p = 0.002$), on CS where $p < 0.05$. However, altruism, conscientiousness and courtesy were statistically insignificant ($p = 0.203$; 0.951 ; 0.086 where $p > 0.05$). Regarding the beta weights, civic virtue has contributed positively towards the prediction of CS ($\beta = 0.212$), while sportsmanship has contributed negatively to CS ($\beta = -0.190$). However, regarding sportsmanship, it should be noted that the numerical scoring scale runs in the opposite direction (reverse scoring). Additionally, the adjusted $R^2 = 0.085$ indicated that approximately 8.5% of the variance in CS is accounted for by civic virtue. This implies that employees who display sportsmanship (the ability to handle unexpected setbacks) and civic virtue (behaviours that help uplift the organisation's image) behaviours are more likely to perceive their

career as more successful than those who do not. Therefore, hypotheses H3 and H5 are accepted. Conversely, hypotheses H1, H2, and H4 are rejected.

6. RECOMMENDATIONS

The results of this study report that employees of this institution perceive themselves as good citizens of this institution. Engaging in OCB is said to be mutually beneficial for employees and organisations. However, since OCB is mainly considered by managers as discretionary and not included in the formal recognition system of organisations, managers often need to notice and encourage employees with such behaviours. Consequently, employees often refrain from exhibiting such behaviours in the workplace. It is recommended that managers include OCB in their performance appraisal system to quickly evaluate employees' OCB and develop a fair reward system for such behaviours within the organisation.

Due to the uncertainties and turbulence that characterise contemporary careers becoming more boundaryless and protean, organisations are leaning more towards flat structures. In this regard, managers can effectively promote adaptability, empowerment, and open communication at the top of their team's priority list with a flat organisational structure focusing on human-centric leadership. The leaders will be able to notice employees' discretionary behaviours that can potentially promote the organisation's effective functioning. They should, therefore, recognise and consider the subjective aspect of employees' CS.

7. CONCLUSION

The lack of studies in the management field that concentrate on the causes of CS in the public higher education context was the driving force behind this research. This study explained how discretionary behaviours not part of the job description and performed because of personal choice go above and beyond enforceable job description requirements, manifesting as perceived CS. Considering discussions of this research study's results, it is concluded that the more excellent employees display sportsmanship and civic virtue behaviours, the higher the perceptions of their career as successful. The conclusions drawn from the results show that practitioners can gain from valuing employees' discretionary behaviours that positively impact how they perceive their careers.

REFERENCES

- Abdullah, M.R., Marican, S. & Kamil, N.L.B.M. 2019. The Antecedents of Organizational Citizenship Behavior: A Conceptual Framework. *Journal of Advanced Research in Social and Behavioural Sciences*, 15, (1): 1-14.
- Ackerman, C.E. 2018. Self Determination Theory and How It Explains Motivation. <https://positivepsychology.com/self-determination-theory/>
- Alzyoud, A.A.Y. 2017. The Predictors of Professional Career Success. *International Review of Management and Marketing*, 7(2), 22-26.
-

-
- Bateman, T. S., & Organ, D. W. (1983). Job satisfaction and the good soldier: The relationship between effect and employee citizenship. *Academy of Management Journal*, 26, 587-595.
- Bermingham, J, Nathwani, T, Van Essen-Fishman, L (2020) *Higher Education Outcomes: How Career Satisfaction Among Graduates Varies by Ethnicity*. Cheltenham: HESA.
- Boshkov T, Zezova A, Serafmova M (2018) Career management and new organization perspectives. *Calitatea-acces la succes (Quality-Access to Success)* 19(165):110–113
- Burgstahler, S. 2012. *Taking Charge: Stories of Success and Self-Determination*. Seattle: University of Washington.
- Chamisa, S.F., Mjoli, T.Q. & Mhlanga, T.S. 2020. Psychological capital and organisational citizenship behaviour in selected public hospitals in the Eastern Cape Province of South Africa. *SA Journal of Human Resource Management*, 18: 1-12.
- Chen, C.P. 2017. Career Self-determination Theory. <https://marcr.net/marcr-for-career-professionals/career-theory/career-theories-and-theorists/career-self-determination-theory-charles-p-chen/>
- de Oliveira, M.C., Melo-Silva, L.L., Taveira, M.D.C. & Postigo, F.L.J. 2019. Career Success According to New Graduates: Implications for Counseling and Management. *School and Educational Psychology*,
- Farla, W., Perizade, B., Zunaidah & Andriana, I. 2022. Career Success: Analysis of The Dimensions. *Advances in Economics, Business and Management Research*, 647: 252-257.
- Gaile, A., Baumane-Vītoliņa, I., Kivipõld, K. & Stibe, A. 2022. Examining subjective career success of knowledge workers. *Review of Managerial Science*, 16:2135–2160.
- GREENHAUS, J.H., Parasuraman, S. & Wormley, W.M. 1990. Effects of race on organisational experiences, job performance evaluations, and career outcomes. *Academy of Management Journal*, 33(1):64-86.
- Haengglia, M., Hirschia, A., Rudolph, C.W. & Peiróc, J.M. 2021. Exploring the dynamics of protean career orientation, career management behaviors, and subjective career success: An action regulation theory approach. *Journal of Vocational Behavior*, 131: 1-16.
- Harari, M.B., Reaves, A.C. & Viswesvaran, C. 2016. ‘Creative and innovative performance: A meta-analysis of relationships with task, citizenship, and counterproductive job performance dimensions’, *European Journal of Work and Organizational Psychology*.
- Harry, T., Dodd, W. & Chinyamurindi, T. 2019. Using Narratives to Understand the Experience of Career Success amongst Self-initiated Expatriates in South Africa. *Southern African Business Review*, 23: 1-27.
- Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524.
-

-
- Işık, A. 2021. Factors Affecting the Organisational Citizenship Behaviour of English Language Teachers. *English Teaching*, 76, (1): 125-151.
- Karam, C. M. 2011. Good organisational soldiers: conflict-related stress predicts citizenship behavior. *International journal of conflict management*, 22(3): 300-319.
- Khaola, P.P. & Coldwell, D.A. 2017. Striking a balance between types of organisational citizenship behaviour. *Southern African Business Review*, 21: 222-242.
- Li, Z., Yang, Y., Zhang, X. & Lyu, Z. 2021. Impact of Future Work Self on Employee Workplace Wellbeing: A Self-Determination Perspective. *Frontiers Psychology*, 1-11.
- Liu, Y.N., Zhao, H. & Sheard, G. Organizational citizenship pressure, compulsory citizenship behavior, and work–family conflict. *Social Behavior and Personality: an international journal*, 45, (4): 695-704.
- Long, J.S. & McGinnis, R. (1993). Rank advancement in academic careers: Sex differences and the effect of productivity. *American Sociological Review*, 58(5): 703–722.
- Memoona, N., Atif, M. & Sara, K. (2015): Impact of career success on organizational performance: A study of health care sector, *Pakistan Journal of Commerce and Social Sciences* 9 (3), pp. 742-760.
- Metelski, A. (2019). Modern Perceptions of Career Success. *e-mentor* 80(3):45-50.
- Mitchell, W., Muysken, J. & Welters, R. 2014. Self Determination Theory and Employed Job Search. *Journal of Economic Psychology*, 44: 222-235.
- Mitonga-Monga, 2019. Examining Organisational Citizenship Behaviour as an Outcome of an Ethical Work Culture in a Developing Country. *Journal of Contemporary Management*, 16: 1-21.
- Muchtar, Y.C. & Qamariah, I. 2023. Does Gender Matter in the Relationship Between Individual Absorptive Capacity and Subjectivity Career Success? *AEBMR*, 660: 590–599.
- Nguyen, B., Chang, K., Rowley, C. & Japutra, A. 2016. Organizational citizenship behavior, identification, psychological contract, and leadership frames: the example of primary school teachers in Taiwan. Manchester: University of Salford. <http://dx.doi.org/10.1108/APJBA-01-2016-0010>.
- Organ, D.W. 1988. *Organizational Citizenship Behavior: The Good Soldier Syndrome*. Lexington, MA: Lexington Books.
- Özçelika, G. & Findiklib, M.A. 2014. The relationship between internal branding and organizational citizenship behaviour: the mediating role of person-organization fit. *Procedia - Social and Behavioral Sciences*, 150:1120-1128.

-
- Pico-Saltos, R.; Bravo-Montero, L.; Montalván-Burbano, N.; Garzás, J. & Redchuk, A. Career Success in University Graduates: Evidence from an Ecuadorian Study in Los Ríos Province. *Sustainability*, 13(9337): 1-24.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly*, 1(2), 107–142.
- Post, S.G. 2005. Altruism, happiness, and health: it's good to be good. *International Journal of Behavioural Medicine*, 12, 66–77.
- Sadeghi, G., Ahmadi, M. & Yazdi, M.T. 2016. The relationship between organizational citizenship behaviour and organizational performance (case study: Agricultural Jihad Organization of Mazandaran Province).
- Sironi, E. (2019). Job satisfaction as a determinant of employees' optimal well-being in an instrumental variable approach. *Quality & Quantity*, 53: 1721-1742.
- Spanouli, A. & Hofmans, J. 2020. A Resource-Based Perspective on Organizational Citizenship and Counterproductive Work Behavior: The Role of Vitality and Core Self-Evaluations. *Applied psychology*, 70(4): 1435-1462.
- Thiruvankadam, T. & Durairaj, I.Y.A. 2017. Organizational citizenship behavior: its definitions and dimensions. *G.E International Journal of Management Research*, 5(5): 46-55.
- Tremblay, M., Dahan, J. & Gianecchini, M. 2014. The mediating influence of career success in relationship between career mobility criteria, career anchors and satisfaction with organization. *Personnel Review*, 43(6): 818-844.
- Trivellas, P., Kakkos, N., Blanas, N. & Santouridis, I. (2015). The Impact of Career Satisfaction on Job Performance in Accounting Firms. The Mediating Effect of General Competencies. *Procedia Economics and Finance* 33:468-476.
- Urquijo, I., Extremera, N. & Azanza, G. 2019. The Contribution of Emotional Intelligence to career success PCS: Beyond Personality Traits. *International Journal of Environmental Research and Public Health*, 16: 1-16.
- Verlinden, 2022. Organizational Citizenship Behavior: Benefits and 3 Best Practices. <https://www.aihr.com/blog/organizational-citizenship-behavior/>
- Wangsapraja, M.H.N. & Gatari, E.2020. The mediating role of career satisfaction in the relationship between perceived organizational support and life satisfaction in millennials. *Advances in Social Science, Education and Humanities Research*, 494: 507-522.
- Wiernik, B.M. & Kostal, J.W. (2019). Protean and Boundaryless Career Orientations: A Critical Review and Meta-Analysis. *Journal of Counseling Psychology*, 66 (3): 280–307.
-

Zhang, Z., Fang, H., Luan, Y., Chen, Q. & Peng, J. 2022. A meta-analysis of proactive personality and career success: The mediating effects of task performance and organizational citizenship behaviour. *Frontiers in Psychology*, 1-12.

SSIRC 2023-118**THE INVOLVEMENT OF ACADEMICS IN THE INSTITUTION'S DECISION-MAKING AND THEIR IDENTIFICATION WITH A UNIVERSITY OF TECHNOLOGY IN SOUTH AFRICA****J.D. Ngo Ndjama**

Vaal University of technology, South Africa

J. Van Der Westhuizen

Vaal University of Technology, South Africa

ABSTRACT

A modern, forward-looking business does not keep employees in the dark about vital decisions affecting them. Instead, it trusts them and involves them in decision-making at all levels. Hence, employee involvement appears as a sound organisational practice that can work to the mutual advantage of management and employees. The study is located within a post-positivism research paradigm. A cross-sectional survey design using a quantitative research method was used. Through a convenience sampling method, the participants consisted of 253 academics. Data was collected with a structured questionnaire on two campuses at a university of technology in South Africa. Correlation and regression analyses were performed to assess the relationship between both variables. Correlation and regression analyses were performed to assess the relationship between both variables. The descriptive analysis of employee involvement and organisational identification revealed that an effective consultation of employees is fairly practised in this institution. Additionally, a positive linear association with a medium-size effect was noted among the constructs. From an empirical perspective, the results revealed that the continual involvement of academics in decision-making positively affected the level of organisational identification. Therefore, leaders are advised to modify their organisations' structure by adopting a team-based system conducive to a consultative work environment and a participative leadership style.

KEYWORDS: employee participation, employee identification, participative leadership, theory Y, theory Z and social identity theory.

1. INTRODUCTION

Kuye and Sulaimon (2011:2) comment that a modern, forward-looking business needs to keep its employees in the loop about vital decisions affecting them. Instead, it trusts them and involves them in decision-making at all levels. Butali and Njoroge (2018) offer a helpful encapsulation of employee involvement as a process of providing low-cadre employees with the opportunity to influence and, where appropriate, take part in decision-making on matters affecting them. Therefore, Rathnakar (2012) advocates that just as people should have the right to choose their governments, workers too should have the right to influence organisational decisions, if not the right to select the management. Commenting on the benefit of making sound managerial decisions, McDowell, and Mallon (2020) note that effective organisational decision-making is strongly associated with better business outcomes. However, Gbaraka, Judipat and Accra (2016) affirm that

more research needs to be conducted concerning the effect of involvement on employee behaviour, especially concerning organisational identification (OI). Moreover, Yildiz (2013) comments that aligning workers' goals with organisations' goals is one of the fundamental problems organisations faces. Thus, managing employees' OI is a critical success factor. Managing employees' OI appears to be a crucial success factor in these circumstances. Iqbal, Qasem, and Anwar (2013) define OI as the perception of oneness with an organisation, where an individual represents themselves in terms of the organisation of which s/he is a member. Bacaksiz, Tuna and Seren (2017) indicate that employees who strongly identify with their organisation make more significant efforts towards accomplishing their tasks, consider themselves representatives of the organisation both inside and outside and prioritise the organisation's interests in all their decisions. Employees' sense of identification is advantageous for organisations and employees: organisations gain from having committed employees who display increased effort, and employees earn from having higher morale and greater job satisfaction (Ryckman, 2022). The author adds that a critical responsibility of any modern organisation's leader is to strengthen their employees' OI.

Wang, Hou and Li (2022) observed that it is challenging for the organisation's leaders to instantly arrive at the best and most effective decisions due to shifts in the external competitive landscape, which introduce objective prerequisites for conceptualising organisational strategic schemes. As a response to this development, specific changes occurred; both theory and practice have begun to devote more emphasis to participative leadership, which promotes and encourages employees to participate in the decision-making process of their organisations. An organisation's ability to make decisions has a significant impact, as it can either help achieve success or the value of the business could be ruined (Strategic CFO, 2018). Therefore, this study advocates that the success of any organisation depends on the quality of the decisions made and the level of involvement of the organisation's internal stakeholders in the decision-making process.

Owing to the latest developments in the management field, Blader, Pati, and Packer (2017) go on to posit that there has not been sufficient theoretical development regarding the specific types of work behaviours that follow from OI, the psychological mechanisms that underlie these behavioural consequences, or observers' evaluations of these behaviours and those enacting them. To address these issues, the current study examines how employee involvement in decision-making (EIDM) can be utilised to manage the workplace and effectively develop employees' OI. Organisational identification is a vital work attitude that affects performance and job satisfaction; hence, a literature review on OI alludes to the need to explore the construct's antecedents in an academic setting.

2. LITERATURE REVIEW

2.1 Theoretical framework

The relevant theories that apply to the study of EIDM are Theories Y and Z, as they both exploit employee involvement as a managerial tool. The current research in OI is anchored in the social identity theory (SIT), whereby individuals classify themselves and others into various social categories, such as organisational membership. The social exchange theory (SET), which

conceptualises the relationship between employees and their organisation, underpins the proposed relationship between EIDM and OI.

The study of EIDM draws on the Theories Y and Z as postulated by Douglas McGregor (1960s) and William Ouchi (1980s). Muhoro (2019) concedes that Theory Z is a managerial strategy that combines American and Japanese philosophies and embraces consensual decision-making and careful evaluation strategies. Subsequently, the author adds that business owners who promote this theory assert that it improves organisational performance overall by giving management a humanistic edge. Closely aligned with Theory Z for EIDM is Theory Y, as they both cite EIDM and individual development as essential components of any organisational growth (Albarran, 2017). Nelson and Quick (2013) further affirm that employee involvement programmes are one consequence of Theory Y assumptions; therefore, many organisations use employee involvement as one motivation strategy to empower their employees. However, regardless of the theory used, Muhoro (2019) underscores that the underlying principle is that business leaders adopt a decentralised management approach and have an optimistic view of employees, promoting a trust-based working relationship between team members. Additionally, Theory Z stipulates that organisations with solid organisational cultures provide employees with the discretionary freedom for local decision-making and permit them to work autonomously; therefore, it is a theory of empowerment (McKee, Kemp & Spence, 2013).

The study of OI is anchored on the SIT by Tajfel (1978) and Tajfel and Turner (1979). Tsuchiya (2017) observes that the SIT assumes that people are motivated toward self-enhancement; in turn, this self-enhancement encourages them to enhance their self-esteem. Karanika-Murray, Duncan, Pontes, and Griffiths (2015) think that the SIT explains that individuals tend to classify themselves and others into various social groups, such as organisational memberships, among others, and each category is not mutually exclusive.

The fundamental tenet of the relationship between EIDM and OI is the social exchange theory (SET) of Blau (1964), which is helpful for leaders who want to structure their workplaces per scientific principles that will help make their employees feel comfortable and productive. Blau (1964:93) defined a social exchange relationship as “involving unspecified obligations in which there are favours that create diffuse future obligations, not precisely defined ones, and the nature of the return cannot be bargained about but must be left to the discretion of the one who makes it.” Employees’ input is welcomed into the organisation's decision-making processes by applying the participatory leadership style. Leaders may not consult with every employee before deciding; however, they establish the procedure and conditions under which suggestions are welcomed (Ryckman, 2022). Commenting on the relationship between EIDM and OI, Ryckman (2022) states that when employees perceive their viewpoints matter, they may identify more strongly with the organisation through participative leadership. Moreover, when their opinions are acknowledged, they might understand how their identities relate to the organisation.

2.2 Employee involvement in decision making.

Given the importance of the concept of EIDM, Benson, Kimmel, and Lawler III (2013) mentioned that the principles of employee involvement were first implemented in the 1960s and 1970s in Europe and the United States of America in large manufacturing plants and gained broader acceptance in the 1980s. Lomo (2017) defines employee involvement in decision-making as any action that enables employees to influence the decision-making processes at any level in the organisation, from the determination of the organisation's overall goal to the ongoing decisions related to the individual's daily work and effort. For Butali and Njoroge (2018) and Shaed et al. (2015), involvement is the power distribution between employer and employee in decision-making processes through direct or indirect involvement. LoOise, Torika and Wigboldus (2011) referred to direct involvement as employees' immediate communication, interaction, and co-decision-making with management. Beale and Mustchin (2014) point out that the direct involvement of staff helps an organisation fulfil its mission and meet its objectives by applying its ideas, expertise, and efforts toward solving problems and making decisions. Indirect involvement involves the mediated involvement of organisation members in decision-making through some form of representation (Thijs, 2013). Employees can share their opinions with the organisation's management in this form of involvement. However, they do not have the power or authority to make appropriate changes.

Oluwatayo, Opoko and Ezema (2017) posit that since traditional organisations adopt hierarchy in their organisational structure and command and control as a leadership style, decisions take longer than they should. Negulescu and Doval (2014) underscore that since decisions are made by the incorrect people, in the wrong part of the organisation, or with incorrect information, they end up being harmful. In line with this thought, it is widely believed that in organisations, only senior leaders typically have the power to make decisions. Given this fact, Gorze-Mitka and Okreglicka (2014) argue that existing and applied decision-making systems often need to be revised for the new challenges organisations encounter. "Yet as important as it is to get those decisions "right," a surprising number of organisations lack clarity about ... who is responsible for making them and how the decision-making process should proceed" (McDowell & Mallon, 2020). To address this lacuna, an emerging body of research has prompted leaders to encourage employees' involvement in their organisation's decision-making. As a result, participation in decision-making (EIDM) has received a fair amount of attention locally and internationally. Interestingly, disproportions continue to exist in the level of involvement of low-cadre employees in the organisation's decision-making and the extent to which leaders are willing to share their privilege with them, particularly in strategic decisions within higher education institutions in South Africa.

The areas of involvement vary across operational, tactical, and strategic decision-making domains (Lomo, 2017). Arrigo and Casale (2010) distinguished three levels of participation within an organisation, namely top-level, mid-level, and low-level employee involvement. Involving employees in the organisation's decision-making is a sound practice that works to the mutual advantage of management and employees (Shaed *et al.*, 2015). Employee involvement is considered a key element in successfully implementing new management strategies. It plays a vital role in determining the degree of job satisfaction and commitment of employees, as well as their

motivation and increased performance (Irawanto, 2015). Butali and Njoroge (2018) contend that it results in better decisions as it permits different views to be aired, and people are more likely to implement decisions they have made themselves. Participative management has been promoted as the ultimate cure for low productivity (Robbins, Judge, Millett & Boyle, 2014). The involvement of employees in decision-making improves communication and cooperation since employees are more eager to communicate with each other instead of requiring all communications to flow through management, hence cutting overhead labour costs (Butali & Njoroge, 2018). Relatedly, Quagraine (2010) highlighted that employee involvement reduces the cost associated with staff support and supervision requirements.

2.2 Organisational identification

Over the past two decades, OI has become a central concept in organisational research (Avanzi, Dick, Fraccaroli & Sarchielli, 2012). Organisational identification is perceived as a specific form of social categorisation where an individual's identity is derived from their classification into social categories or social groups (Moksness, 2014). Relatedly, Cetin and Kinik (2016) underscore that social identity is formed mainly by the differentiation between in-group and out-group dynamics. In contrast, the in-group acquires a positive distinctiveness and, hence, a relatively positive social identity compared to the out-group. Accordingly, Tsuchiya (2017:2) posits that OI is “the degree to which a member defines him/herself by the same attributes of that of the organisation”. The more an employee identifies with their organisation, the more likely they are to support the organisation and perform behaviours that benefit it (Wilkins, Butt & Annabi, 2018). This occurs when employees see themselves as part of the organisation, willingly accepting the organisation's decision and offering support to attain its objectives (Gbaraka *et al.*, 2016). Of note, Wilkins *et al.* (2018) propose that OI is a cognitive construct where employees believe they are psychologically linked to the success of their companies. Jin (2015) notes that organisations must develop and maintain unique and distinguishable attributes and features for their members to cultivate salient, stable, and robust OI.

3. RESEARCH PURPOSE AND OBJECTIVES

This study aims to assess the effect of involving employees in decision-making on their identification with their institutions. To amplify the main objective, the following research objectives are formulated:

- Ascertain employees' perceptions of the level of involvement in decision-making.
- Assess employees' perceptions of their identification with the organisation.
- Examine the effects of academics' EIDM on OI in a university of technology in South Africa.

4. METHODOLOGY

4.1 Research design, target population and sample

The study was carried out on two UoT campuses in South Africa. Since this study was supposed to be measurable and objective, a post-positivist paradigm was used. A total of 253 academics from a population of 405 staff were investigated using a descriptive research design focused on a

cross-sectional survey and a quantitative research method. Convenience sampling was used to select the study's participants based on their accessibility during the data collection. More specifically, it consists of both male and female academics employed permanently and those used under a contract. Staff from each of the faculties participated in the investigation, ranging from the junior lecturers (also known as developmental lecturers' posts) and laboratory technicians (job grade level 9), lecturers (job level 8), senior lecturers (job grade level 7), associate professors (job grade level 6), academic Heads of Departments (HoD) and professors (job grade level 5), to the Executive Deans (EDs) (job grade level 4).

4.2 Questionnaire

The researcher distributed a three-part questionnaire to the participants. The demographic section (Section 1) contained information about the respondents broken down into five subcategories: gender, age, highest educational attainment, work experience, and job grade levels. All questionnaire items other than Section 1 used a 5-point Likert scale, ranging from 1 strongly disagree to 5 strongly agree.

With regards to the questionnaire on EIDM (Section 2), the variable was measured with a combination of ten-item scales used by Lam, Chen, and Schaubroeck (2002) adopted from Siegel and Ruth (1979) and Rubyutsa (2004). Organisational identification (Section 3) was measured with a six-item scale previously used by Mael and Ashforth (1992). This section aims at depicting the level of employees' identification with their organisation. Through a linear regression analysis, EIDM was entered as an independent variable or predictor into the regression model (Model 1) and OI as the independent variable.

4.3 Ethical consideration

This study, conducted in a higher education institution in South Africa, contained no risk for the staff involved. Before undertaking this research endeavour, an ethical clearance was obtained from the university's management to ensure that this study complied with the ethical principles of the institution under investigation.

5. RESULTS AND DISCUSSION

5.1 Sample composition

405 questionnaires were distributed among the participants, and 253 (62%) were fully and correctly completed. The sample comprised 151 (59.7%) men and 102 (40.3%) females. The sample distribution based on age indicated that most respondents were between 30 and 39 years of age (n = 90; 35.7%). Respondents aged between 50 and 59 became the majority (n = 40; 15.9%). Regarding years of work experience, respondents predominantly had work experience of more than ten years (n = 111; 44.4%). Regarding the highest qualification, most respondents had a Master's degree (n = 123; 48.8%). Finally, about the job grade levels, it was reported that level 8 (lecturers) comprised the highest percentage (n = 163; 64.7%).

5.2 Descriptive statistics on the constructs

An overall score was calculated for each construct based on grouping the items that made up the construct. The overall mean item score and the standard deviation for each construct are presented in Tables 1 and 2.

Table 1: Descriptive statistics of employee involvement in the decision-making scale

| Item description | Mean | Cronbach alpha |
|---|------|----------------|
| Employee involvement in decision-making | - | .791 |
| In this institution, I have a degree of influence in the decisions affecting me | 2.79 | |
| I am allowed to take part in decisions in my department | 3.38 | |
| The decisions in my department are made through consultation with members of the department | 3.39 | |
| My supervisor asks for my opinion about how work gets done | 3.50 | |
| As an employee, I participate in the decisions that are made in my institution | 2.64 | |
| Valid N =253 | | |
| 1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly agree | | |

Table 2: Descriptive Statistics Organisational Identification scale

| Item description | Mean | Cronbach alpha |
|---|------|----------------|
| Organisational identification | - | .881 |
| When someone criticises my institution, it feels like a personal insult. | 3.41 | |
| I am very interested in what others think about my institution | 3.75 | |
| When discussing my institution, I usually say 'we' rather than 'they.' | 3.55 | |
| This institution's successes are my successes | 3.80 | |
| When someone praises this institution, it feels like a personal compliment | 3.68 | |
| If a story in the media criticises this institution, I would feel embarrassed | 3.84 | |
| Valid N =253 | | |
| 1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly agree | | |

Tables 1 and 2 display the results of the descriptive analysis done on EIDM and OI scales. Examining the means in Table 1, an effective consultation of employees in decision-making is somewhat practised in this organisation. On reviewing the standards in Table 2, employees seem neutral in their responses concerning the six statements that describe OI. It illustrates that employees unrestrainedly identify themselves with their employing organisation. They moderately see themselves as being part of this organisation.

5.3 Correlation analysis

This study examines the relationship between EIDM and OI. The data were subjected to Pearson product-moment correlation analysis to specify the relationship among the variables. The results of the study are reported in Table 3.

Table 3: Correlation between employee involvement in decision-making and organisational identification

| | | EIDM | OI |
|-------------|-----------------|--------|--------|
| EIDM | PC | 1 | .390** |
| | Sig. (2-tailed) | | .000 |
| OI | PC | .390** | 1 |
| | Sig. (2-tailed) | .000 | |

PC= Pearson correlation; Sig= significant; **Sig at p<0.05; EIDM: Employee involvement in decision making; OI= Organisational identification

Table 3 illustrates that the correlation between EIDM and OI was statistically significant, $r=0.390$ at $p=0.01$ significance level, suggesting a positive linear association between EIDM and OI. Regarding the effect sizes, the correlation showed a medium effect regarding practical significance. This implies that a higher prevalence of an organisation involving its employees in the decision-making process could lead to a more robust identification with the organisation. These findings support Rana's (2019) claim that when employees are allowed to participate in an organisation's decision-making, it fosters a sense of identification in them that demonstrates their membership with the institution.

5.4 Regression analysis

Table 4 summarises the results of the linear regression analysis with EIDM entered in the regression equation as an independent variable and OI as a dependent variable.

Table 4: Regression analysis with employee involvement in decision-making and organisational identification

| Model 1 Dependent variable: OI | Standardised coefficients Beta | t | Sig. | R ² | Adj R ² | Collinearity statistics | |
|--------------------------------------|--------------------------------------|-------|--------|----------------|--------------------|----------------------------|-------|
| | | | | | | Tol | VIF |
| 1 | Constant | 8.400 | .000 | .180 | .167 | | |
| | EIDM | 6.914 | .000** | | | .964 | 1.037 |

a). Dependent variable: OI; b). Predictor: (constant), EIDM; c) ** significant at $p<0.05$

Table 4 summarises the results of the linear regression analysis with EIDM entered in the regression equation as an independent variable and OI as a dependent variable. The prediction of OI ($\beta=0.405$) has benefited from EIDM. Additionally, the adjusted $R^2 = 0.167$ shows that EIDM accounts for about 16.7% of the variance in OI. EIDM was found to be a strong predictor of OI. These results suggest that a more robust employee identification with an organisation may result from a more significant proportion of EIDM within that organisation. Consistent with these findings, the study of Kumar and Saha (2017) reported that EIDM gives them a sense of belongingness toward the organisation by considering their opinion in trivial matters, and to reciprocate such privileged actions, employees will identify strongly with their organisation. Subsequently, Wilkins et al. (2018) also discovered that among the antecedents of OI in multinational higher education institutions, EIDM has the most decisive influence.

5.5 Reliability and validity

The reliability coefficients of EIDM and OI scale items yielded satisfactory Cronbach alpha values (0.791 and 0.881, respectively). These values indicate a reliable instrument as values exceeded the 0.7 benchmarks (Lee 2019). Content validity was established by identifying the content domain through a thorough literature review of the different constructs of interest (EIDM and OI). Additionally, item-total correlations were checked through the computation of internal consistency (Cronbach alpha) to examine the inter-correlations of the scale items. Face validity was ascertained by a review of the measuring instrument by experts in the field of management; their feedback was obtained, and the questionnaire was deemed relevant in measuring EIDM and OI. Convergent validity was ascertained through correlation, and it was reported that EIDM correlated positively with OI.

6. RECOMMENDATIONS, LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH

6.1 Recommendations

Considering discussions of the research results, several recommendations may be set forth to improve EIDM and OI in higher education institutions in South Africa. From a practical perspective, leaders in this 21st century need to be cognizant of employee involvement in decision-making as a managerial tool. Even though institutions differ, by creating an atmosphere of openness, leaders will encourage a free flow of decision-making within their organisations and employees will feel valued and develop more creative approaches. Therefore, leaders are advised to modify their organisations' structure by adopting a more team-based structure (flat structure) instead of a department-based structure (tall structure), which is more effective and conducive to a consultative work environment. Leaders should define the who, what, and how of decision-making before straightforwardly communicating them to employees so they know their rights. This study indicates a potential for improving employees' identification with their organisation. Considering the advantages for organisations to have employees whose faith, values and goals are strongly intertwined with the ones of the organisation, it is recommended that leaders continue applying new and improved strategies that may help foster OI. In this study, it was demonstrated that the active involvement of employees in decision-making is a potent stimulator of OI. Moreover, this study revealed that employees exposed to decision-making are more prone to identify with the organisation. Employees with extraordinary abilities and skills can choose, at least to some extent, where they want to work. Most of the time, their choice is based on organisations' reputations, and they tend to self-select into the ones they most identify with. On the other hand, leaders are constantly searching for strategies to boost their employees' levels of identification. Therefore, leaders are advised to adopt participative leadership, sometimes called democratic leadership style, to enhance their employees' title levels.

6.2 Limitations and directions for further research

As in every study, this study has some limitations. Firstly, a cross-sectional research design was adopted and allowed the researcher to collect information at one point. Future researchers may use

a longitudinal approach to study the same group of individuals (academics) over an extended period. Secondly, only one UoT in South Africa was surveyed, which could affect the generalisation of the study to other UoT in South Africa. Hence, prospect studies are suggested to replicate this study by including more than one UoT. Thirdly, this study used a sample of 253 respondents through a convenience sampling technique. Future studies may use more extensive examples and probability sampling techniques to represent the population accurately.

7. CONCLUSION

The review of findings on the influence of EIDM on OI has shown conclusive evidence of a positive relationship between the two constructs. Thus, from a theoretical perspective, the scholarly literature on EIDM and OI was reviewed, analysed, and synthesised in the broader management context. From an empirical perspective, the research findings provide more insight into the role of EIDM in strengthening employees' sense of identification since a positive relationship was established between the two constructs. Therefore, this study concludes that employees who perceive their organisation as implementing a participative leadership approach are likelier to develop a strong level of OI. In other words, the involvement of employees in the organisation's decision-making in the higher education sector is an essential contributor to their identification with the institution. Hence, this relationship is expected to be more vital for employees with high exposure to decision-making and weaker for employees with low exposure to decision-making in the organisation.

REFERENCES

Adham, A., 2014, Employee involvement and its impact on job satisfaction and organisational commitment: evidence from the 2011 workplace employment relations study, *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 18(2), 368-400.

<http://gssrr.org/index.php?journal=JournalOfBasicAndApplied>.

Akgunduz, Y. & Bardakoglu, O., 2015, The impacts of perceived organisational prestige and organisation identification on turnover intention: the mediating effect of psychological empowerment, *Current Issues in Tourism*, 1-18.

<https://doi.org/10.1080/13683500.2015.1034094>

Albarran, A.B., 2017, *Management of electronic and digital media*, 6th ed, Boston, Cengage Learning. ISBN: 978-1-305-07756-0.

Aminudin, N., 2011, Gender and employee involvement in Malaysia, *Journal of Management*, 32, 73-82. <http://ejournal.ukm.my/pengurusan/article/view/239>.

Arrigo, G. & Casale, G., 2010, *A comparative overview of terms and notions on employee involvement*, Geneva, International Labour Organization. ISBN: 978-92-2-123266-7.

Avanzi, L., Dick, R.V., Fraccaroli, F. & Sarchielli, G., 2012, The downside of organisational identification: relations between identification, workaholism and well-being, *Work & Stress*, 26, (3), 289 – 307. DOI: 10.1037/bul0000012

-
- Bacaksiz, F.E., Tuna, R. & Seren, A.K.H., 2017, The relationships between organisational identification, job performance, and job crafting: a study among nurses, *International Journal of Caring Sciences*, 10 (1), 251-259. <http://www.internationaljournalofcaringsciences.org/>
- Blader, S.L., Pati, S. & Packer, D.J., 2017, Organizational identification and workplace behaviour: more than meets the eye, *Research in Organizational Behavior*, 37, 19-3.
- Blau, P. 1964, *Power, and exchange in social life*. NY: John Wiley & Sons.
- Beale, D. & Mustchin, S., 2014, The bitter recent history of employee involvement at Royal Mail: an aggressive management agenda versus resilient workplace unionism, *Economic and Industrial Democracy*, 35(2), 289-308. <https://doi.org/10.1177/0143831X13479042>
- Benson, G.S., Kimmel, M. & Lawler III, E.E., 2013, *Adoption of employee involvement practices organisational change issues and insights*, Los Angeles, Center for Effective Organizations (CEO). [https://doi/abs/10.1108/S0897-3016\(2013\)0000021011](https://doi/abs/10.1108/S0897-3016(2013)0000021011)
- Bratton, J. & Gold, J., 2012, *Human resource management: theory and practice*, 5th ed, London, Palgrave MacMillan. ISBN: 978-0230580565.
- Butali, P. & Njoroge, D., 2018, Effect of employee involvement on organisational performance with organisational commitment as a moderator, *International Journal of Scientific Research and Management*, 6(6): 478-485. DOI: 10.18535/ijstrm/v6i6.el015.
- Cetin, M. & Kinik, S.F., 2016, The reflections of organisational identification built upon social identity theory on the perception of alienation in higher education, *The 2016 WEI International Academic Conference Proceedings*, 328-344. <https://www.westeastinstitute.com>
- Chalchissa, A. & Emnet, N., 2014, Female undergraduate students' attitudes toward and perceptions of entrepreneurship development: comparison public and private universities in Ethiopia, *Global Journal of Management and Business Research: Administration and Management*, 14(11), 29-39. <http://ijstrp.org/>
- Gbaraka, K.A., Judipat, O.N. & Accra, J.S., 2016, Employee involvement and organisational identification: implications of the mediating effect of organisational culture, *European Journal of Business and Management*, 8(11), 32-44.
- Gorze-Mitka, I. & Okreglicka, M., 2014, Improving decision making in complexity environment, *Procedia Economics and Finance*, 16, 402 – 409. doi: 10.1016/S2212-5671(14)00819-3.
- Hongvichit, S., 2015, The research progress and prospect of employee turnover intention, *International Business Research*, 8(6), 218-223. DOI:10.5539/ibr. v8n6p218.
-

-
- Iqbal, F., Qasem, S. & Anwar, F., 2013, Perceived organisational support, organisational identification and job involvement among temporary and permanent employees-relational analysis, *Journal of Resources Development and Management*, 1, 1-8.
- Irawanto, D.W., 2015, Employee involvement in decision making: evidence from a state-owned enterprise in Indonesia, *Management*, 20(1), 159-172. <https://pdfs.semanticscholar.org>
- Jin, S., 2015, A new paradigm of organisational identity and identification, *Journal of Business and Economics*, 6(9), 1561-1569. DOI: 10.15341/jbe(2155-7950)/09.06.2015/002
- Karanika-Murray, M., Duncan, N., Pontes, H. & Griffiths, M., 2015, Organizational identification, work engagement, and job satisfaction, *Journal of Managerial Psychology*, 30(8), 1-17. DOI: 10.1108/JMP-11-2013-0359
- Kumar, S.P. & Saha, S., 2017, Influence of trust and involvement in decision making on employee attitudes in Indian public sector undertakings, *Sage Open*, 1-13. DOI: 10.1177/2158244017733030
- Lam, S.S.K. Chen, X.P. & Schaubroeck, J., 2002, Participative decision making and employee performance in different cultures: the moderating effects of phallocentrism/idiocentrism and efficacy, *Academy of Management Journal*, 45(5), 905-914. <http://dx.doi.org/10.2307/3069321>
- Lee, R., 2019, *Software engineering research, management and applications*, Cham, Springer. ISBN 978-3-319-98881-8.
- Lomo, L.L., 2017, The relationship between employee involvement, organisational commitment, and sharing and cooperation within healthcare organisations, master's thesis, Department of Psychology, University of Oslo.
- LoOise, J.K., Torka, N. & Wigboldus, J.E., 2011, Involvement and organisational performance at the firm level: in search for an integrated model, *Advances in Industrial and Labor Relations*, 18, 87-113. ISBN: 978-0-85724-907-4
- Mael, F. & Ashforth, B. E., 1992, Alumni and their alma mater: a partial test of the reformulated model of organisational identification, *Journal of Organizational Behavior*, 13, 103-123. DOI/abs/10.1108/S0742-6186
- McDowell, T. & Mallon, D. 2020. Getting decision rights right: How effective organisational decision-making can boost performance Insights /
- McKee, A., Kemp, T. & Spence, G., 2013, *Management: a focus on leaders*, Frenchs Forest, Pearson Australia. ISBN: 9781442549937
-

Moksness, I., 2014, Psychometric study of organisational identification, master's degree in psychology, UiT Norway's Arctic University.

Muhoro, N. 2019. Jobs that incorporate the z theory.

<https://smallbusiness.chron.com/shareholders-vs-employees-32512.html>. Accessed: 27/01/2023.

Negulescu, O. & Doval, D., 2014, The quality of decision-making process related to organisations' effectiveness, *Procedia Economics and Finance*, 15, 858-863. dOI: 10.1016/S2212-5671(14)00548-6

Nelson, D.L. & Quick, J.C., 2013, Organizational behaviour: science, the real world, and you, 8th ed, South-Western, Cengage Learning. ISBN 9781111825867

Ngo Ndjama, J.D. & Joubert, P.A. 2020, Organisational identification among academics in a higher education institution in South Africa: effects of age, work experience and job grade levels,

Olorunsola, E.O. & Olayemi, A.O., 2011, Teachers' involvement in the decision-making process in secondary schools in Ekiti State, Nigeria, *International Journal of Education Administration and Policy Studies*, 3(6), 78-84. <http://www.academicjournals.org/JEAPS>

Oluwatayo, A., Opoko, A. & Ezema, I., 2017, Employee involvement in decision-making in architectural firms, *Urbanism Arhitectură Construcții*, 8(2), 193-206. <https://uac.incd.ro/Art/v8n2a06.pdf>

Quagraine, T.L., 2010, Employee involvement as an effective management tool in decision making: a case study of Merchant Bank (Ghana) Limited, Master of Business Administration, Kwame Nkrumah University of Science and Technology.

Rana, S., Chopra, P. & Pant, D. 2019. Employee engagement: role of demographic characteristics in the telecom sector. *Journal of Emerging Technologies and Innovative Research*, 6(6): 331-343.

Rathnakar, G., 2012, A study of workers involvement in management decision making at Bhel, Hyderabad, *International Journal of Marketing, Financial Services & Management Research*, 1 (9), 135-141. <http://indianresearchjournals.com>

Ryckman, M.L. 2022. How to strengthen organisational identification.

<https://smallbusiness.chron.com/strengthen-organizational-identification-31398.html>. Accessed: 28/01/2023.

Robbins, S., Judge, T.A., Millett, B. & Boyle, M., 2014, *Organisational behaviour*, 7th ed, Frenchs Forest, Pearson Australia. ISBN: 9781488609329

Rubyutsa, M.J., 2004, Involvement of employees in decision-making in public enterprises: a case study of Rwandan communication enterprises, master's in management, University of KwaZulu-Natal: Durban. <http://hdl.handle.net/10413/1673>

Shaed, M.M., Ishak, S. & Ramli, Z., 2015, Employees' involvement in decision making (PDM): a literature survey, *Malaysian Journal of Society and Space*, 11(13), 142-155.

Siegel, A.L. & Ruth, R.A., 1979, Job involvement, involvement in decision making, personal background and job behaviour, *Organisational Behaviour and Human Performance*, 9, 318-327.

Strategic CFO. 2018. How decision-making impacts an organisation. <https://strategiccfo.com/articles/financial-leadership/how-decision-making-impacts-an-organization/>. Accessed: 27/01/2023.

Thijs, N., 2013, How the CAF model strengthens staff involvement, Lithuania, European Institute of Public Administration. <http://www.eupan.eu/>

Tsuchiya, Y., 2017, A critical review of organisational identification: introducing identity work to examine the dynamic process, *Journal of Organizational Culture, Communications and Conflict*, 21(2), 1-10. <https://www.abacademies.org>

Wang, Q., Hou, H. & Li, Z. 2022. Participative leadership: a literature review and prospects for future research. *Frontier in Psychology*, 13: 1-12.

Wilkins, Butt & Annabi 2018, The influence of organisational identification on employee attitudes and behaviours in multinational higher education institutions, *Journal of Higher Education Policy, and Management*, 40(1), 48-66.

Yildiz, K., 2013, Analysis of the relation of teachers' organisational identification and organisational communication, *Educational Sciences, Theory & Practice*, 13(1), 264-272.

SSIRC 2023-119**THE EFFECTIVENESS OF TIKTOK INFLUENCERS IN PROMOTING EDUCATIONAL CONTENT CONSUMPTION AND ENGAGEMENT AMONG SOUTH AFRICAN YOUTH****C.T. Lenyidi**

North-West University, South Africa

K. Rabanye

North-West University, South Africa

M. Mothiba

North-West University, South Africa

ABSTRACT

TikTok has become an increasingly popular platform for South African youth to access educational content. This study explores the impact of TikTok influencers on South African youth's consumption and engagement with educational content. Specifically, the study seeks to understand how TikTok influencers are using the platform to share educational content with their followers how this content is being consumed and the extent it increases engagement among South African youth. This study aims to better understand the potential of TikTok influencers as educational ambassadors in South Africa and to explore how educational content on TikTok can be leveraged to promote learning and development among young people. The study employed a quantitative pilot study to gather data from a sample of South African youth who use TikTok. The surveys were administered to a sample of South African youth aged between 18 and 25 who follow TikTok influencers for educational content. This pilot study survey included questions about the types of educational content consumed, the frequency of consumption, and engagement with the content, as well as their perceptions of the effectiveness of this content in promoting learning and development. The study draws on theories, including the social cognitive theory and the uses and gratifications theory, to provide a framework for understanding how TikTok influencers shape the attitudes and behaviours of their followers towards educational content. These included the social learning theory, which suggests that people learn by observing and imitating others, and the uses and gratifications model, which posits that people use media for specific purposes and to satisfy specific needs. Overall, this study provides important insights into the impact of TikTok influencers on South African youth's educational content consumption and engagement. The findings have implications for educators, policymakers, and social media platforms, highlighting the potential of TikTok as a tool for promoting positive learning outcomes among young people.

KEYWORDS: Educational Content, Consumption and Engagement, Social Media Influencers, Social Cognitive Theory, TikTok, Uses and Gratification Theory.

1. INTRODUCTION

In today's digital landscape, people of all backgrounds and ages are plugged into the virtual realm; according to a recent survey, there are 5.16 billion internet users worldwide, representing 64.4 per cent of the world's total population (Kemp, 2023). "Social media platforms," which have become the buzzword amongst individuals and communities alike, have revolutionised how we communicate, interact, and share information with each other and have been embedded as a fundamental aspect of our lives (Kutu, 2021). Among these platforms is TikTok, which Deng, Seo, and Austin (2022) define as an application that allows for sharing short-form videos and has gained tremendous. Especially among the youth, TikTok is currently ranked at number six as the most "visited internet site" in the world, with 1 billion monthly active users and a staggering 672 million downloads in 2022, well ahead of the second-place app, Instagram, with 548 million downloads (West, 2023).

In South Africa, TikTok has also managed to gain traction among the youth population (Sinclair, 2021). Known for its capabilities in capturing audiences with creative and engaging content through recording and uploading the original 15 seconds to the now extended 10-minute duration videos (Smith & Gwilliam, 2023) that are tailored towards entertainment, TikTok has subsequently boosted interest in using TikTok to create and promote content consumption, typically amongst youth audiences (Laura & Carles, 2022).

Social media platforms have been evolving throughout the years from just their conventional use of communication and entertainment to being used as a platform in the realm of education. In the academic research field, social media has gained significant attention of scholars, especially on its value in facilitating learning techniques among students, as these platforms provide a unique opportunity to engage learners in ways that traditional methods of teaching often struggle to achieve (Scott & Goode 2020; Greenhow & Chapman 2020; Xiuwen & Razali 2021). Social media is an effective tool in terms of teaching and learning in higher education, some scholars consider social media platforms as a pedagogical/ andragogical tool which fosters communication and information exchange in a learning and teaching environment (Chugh & Ruhi 2018; Barrot, 2022 & Petez, Manca, Fernández-Pascual, Mc Guckin 2023). For instance, a study conducted by (Duan, 2023: 128), investigated the use of Tick Tok as a new way of learning English, one of the social media platforms. The findings suggested that TikTok's video English teaching resources and repeatable visual language knowledge reduce the difficulty of acquiring language knowledge, helping these students to consolidate and practice countless times in time.

While numerous studies have explored the use of social media platforms for teaching and learning purposes, some studies touched on the use of TikTok as a pedagogical tool for learning, however, there remains a notable gap in the literature pertaining to the creation of educational content through influencers on TikTok, particularly within the South African context. Hence this paper has filled the existing gap by examining the effectiveness of TikTok influencers in promoting educational content consumption and engagement among South African youth. The study will explore the extent to which TikTok influencers can be used to promote educational content

consumption and engagement among youth in South Africa. It will also examine the factors that contribute to the effectiveness of TikTok influencers in this regard, including the nature of the educational content, the influencer's content creation skills, and the influencer's ability to connect with the audience. The findings in this study would prove beneficial to the field of knowledge as it will contribute to developing effective strategies for promoting educational content consumption through accessible means such as TikTok among South Africa's youth.

2. LITERATURE REVIEW

2.1. Theoretical Framework

2.1.1. Social Cognitive Theory

The social cognitive theory posits that learning occurs through the interaction between personal factors, environmental factors, and behaviour (Bandura, 1986). Therefore, in similarity with this paper, personal factors such as self-efficacy, motivation, and interest, as well as environmental factors such as social influence and the perceived usefulness of educational content, influenced the consumption and engagement of educational content on TikTok.

A study by Knight et al (2013) examined the effectiveness of a teacher professional development program that incorporated observational learning and found that teachers who participated in the program reported increased self-efficacy and improved teaching practices. Another study examined the relationship between self-efficacy and academic achievement in middle school students, and the findings highlighted that self-efficacy was a strong predictor of academic achievement and that interventions that increased self-efficacy led to improvements in academic performance (Pajares & Schunk, 2001).

The social cognitive theory suggests that the environment can influence behaviour (Bandura, 1986). In the context of TikTok influencer marketing, the environment includes the platform itself, as well as the social norms and expectations of South African youth. TikTok influencers who promote educational content help create a positive environment for learning by normalising consumption and engagement with this type of content.

In summary, this theoretical framework posits that the effectiveness of TikTok influencers in promoting educational content consumption and engagement among South African youth can be explained by the principles of social cognitive theory. By observing, imitating, and being reinforced for engaging with educational content, South African youth are more likely to develop a habit of consuming and sharing this type of content. Additionally, self-efficacy and a positive environment further enhance the effectiveness of TikTok influencer marketing for educational content.

1.1.1 Uses and Gratification Theory

Uses and gratifications theory is uniquely suited for investigating social media platforms as it stresses the relevance of digital media in everyday life, the variety of needs it addresses, and the audience's active role (Falgoust et al., 2022). A study conducted by Lin and Lu (2011) explored the motivations underlying blogging behaviours by employing a web-based survey. In this investigation, a total of 386 bloggers were recruited through prominent social media platforms,

including Facebook, Twitter, and LinkedIn. Utilising the framework of uses and gratifications theory, the research endeavoured to uncover the primary drivers of blogging behaviour. The findings of the survey unveiled compelling insights: The bloggers articulated a need to vigorously express their personal thoughts and emotions, share their unique lives, and develop a sense of fellowship with an online group of similar minds. The motivations in question correspond with the central ideas of the uses and gratification theory, as individuals are driven by cravings to fulfil diverse psychological, social, and emotional wants through media consumption.

When examining the motivation behind Instagram use, another study found that the platform was primarily used for entertainment and socialising purposes and that users were more likely to continue using Instagram if they perceived it to be satisfying their needs (Lee et al., 2017).

Falgoust, et al. (2022) conducted a study that applied the uses and gratifications theory to identify the motivational factors behind young adults' participation in viral social media challenges on TikTok and found that young adults participated in TikTok challenges primarily for entertainment, socialising, and self-expression purposes. A study looked at why people microblog and how social media influences college students. According to the findings, which were presented by Wang and colleagues in 2011, students mainly use microblogging for socialising and enjoyment, and its effects have a substantial impact on their social and academic lives. In addition, the investigation discovered that social media usage was linked to enhanced communication and teamwork among students, as well as augmented involvement in non-curricular events.

In a recent investigation centred on TikTok as an online platform, researchers delved into the uses and gratifications of young individuals regarding their digital experience amidst the COVID-19 pandemic and the subsequent shift to remote learning based on user preferences. The study focused on the way young individuals leveraged TikTok to express their thoughts and feelings regarding online instruction (Literat, 2021). A study conducted by Taha (2021) expands upon exploring the potential of TikTok as a platform for educational content creators. The study found that TikTok has the potential to be an effective platform for educational content creators to reach and engage audiences, particularly younger generations (Taha, 2021). The success of educational content on TikTok was found to be influenced by several factors, including creativity, authenticity, relevance, and the ability to capture and retain viewers' attention.

Park et al., (2009) expand upon social media platform usage among young adults by identifying three main gratifications: social interaction, self-presentation, and entertainment. Social interaction involves using social networking sites to present oneself in a positive and desirable way to others while self-presentation involves using social media to present oneself in a positive and desirable way to others and entertainment involves using social media to present oneself in a positive and desirable way to others. Hence (Shao, 2009) asserts that different gratification drives different uses. For instance, South African youth may be motivated by cognitive gratifications when consuming educational content that provides them with knowledge and information that can improve their academic performance.

For instance, South African youth identify gratifications from consuming educational content on TikTok and this increased knowledge, improved academic performance, social recognition, and personal satisfaction. Much of the imminent research has the potential to investigate the motivation behind educational content on social media such as TikTok. However, little is known about the motivational factors underlying production on the rapidly growing social media platform TikTok, an online platform for viewing, sharing, and producing short videos on educational content (Escamilla-Fajardo, 2021). By applying the use and gratification model, this paper has identified the gratifications that drive young people's engagement with educational content on TikTok.

Overall, the uses and gratification theory are a useful framework for contextualising the motivations and gratifications that drive South African youth's engagement with educational content on TikTok and can be leveraged by influencers to increase the effectiveness of their educational content promotion efforts. In summary, both theoretical frameworks propose that the effectiveness of TikTok influencers in promoting educational content consumption and engagement among South African youth can be explained by the principles of social cognitive theory and the uses and gratification model.

Needs and Motivations

UGT posits that individuals actively seek media content to fulfil specific psychological and social needs. In the South African context, these needs might include enhancing academic knowledge, personal growth, and social interaction. Existing research supports the idea that educational content consumption can satisfy these needs, leading to enhanced learning outcomes and personal development (Stafford, Stafford & Schkade, 2004.)

Media Selection

TikTok's unique features, such as short-form videos and personalised content recommendation, align with South African youth's media preferences. Research by Swart (2021), suggests that TikTok's algorithmic nature enhances user engagement by delivering content tailored to individual interests, increasing the likelihood of encountering educational content aligned with users' needs.

Gratifications Obtained

South African youth engaging with educational content on TikTok can obtain gratifications such as improved academic performance, a sense of belonging to a learning community, and enhanced digital literacy. Empirical studies by Faloye and Ajayi (2022), demonstrate that digital platforms can serve as effective tools for knowledge acquisition among South African youth. Influencers on TikTok can leverage UGT insights to create more effective educational content promotion strategies. By understanding their audience's needs and motivations, influencers can tailor content that resonates with South African youth. Collaborative efforts between influencers and educators can further enhance content credibility and engagement.

The application of the Uses and Gratifications Theory provides a robust framework for contextualising the motivations and gratifications driving South African youth's engagement with educational content on TikTok. Through a deep analysis of UGT components, this paper establishes a theoretical foundation that underscores the potential of TikTok as an educational

platform. Empirical evidence and insights from existing literature further support the effectiveness of UGT-driven influencer strategies. This research contributes to a nuanced understanding of media consumption patterns among South African youth and offers practical implications for educators, influencers, and policymakers.

3. METHODOLOGY

3.1. Research design

This study made use of a quantitative pilot study to assess the educational effect of TikTok on 18- and 25-year-old South Africans, who pursue TikTok influencers for educational material. A pilot study was employed to ensure the robustness and effectiveness of our research instrument before the main data collection phase. This preliminary phase allows us to assess the clarity, accuracy, and validity of the survey items, ensuring that they capture the intended insights accurately. The pilot study will also ensure researcher identifies any potential ambiguities, redundancies, or challenges that respondents might encounter while completing the questionnaire. Through the insights gained from the pilot study, necessary adjustments can be made to enhance the overall quality and validity of our research instrument. The findings from the pilot study will inform the decisions regarding question wording, response options, and survey flow, thereby increasing the likelihood of obtaining accurate and meaningful data during the main data collection phase.

While numerous studies have explored the use of social media platforms for teaching and learning purposes, some studies touched on the use of TikTok as a pedagogical tool for learning, however, there remains a notable gap in the literature pertaining to the creation of educational content through influencers on TikTok, particularly within the South African context. The existing body of literature has primarily focused on the broader use of social media for teaching and learning purposes specifically in classrooms, leaving a dearth of in-depth exploration of the use of TikTok influencers in delivering educational content to a larger society (online viewer's). Thus, there is a compelling need to address this gap and contribute to the understanding of how influencer-driven educational content on TikTok can be harnessed effectively within the South African context. The research was strictly limited to TikTok as a medium for educational content to calculate its usefulness in furthering educational content and determining the most effective types.

3.2. Sampling method

The use of TikTok as the main platform for recruitment was effective in reaching the target population and collecting data on their engagement with educational content on the platform. A non-probability sampling approach was selected for the pilot study to select participants based on specific criteria, namely their engagement with TikTok influencers for educational content. The focus on participants aged 18 to 25, as well as their active presence on TikTok, was aligned with the pilot study's aim to explore engagement patterns among South African youths. In the pilot study, a sample size of 30 participants was determined using a sample size calculator tailored to the demographics and characteristics of South African youths, this sample size is categorised as such 22 participants are users and 7 are influencers who produce educational content.

This sample size provided us with an initial dataset to analyse engagement trends and gather preliminary insights into participants' motivations, preferences, and perceptions related to

educational content on TikTok. To retrieve participants for the pilot study, we leveraged TikTok's platform and sent targeted messages to students from South Africa who were actively using TikTok. Incorporating the pilot study allowed us to test the recruitment methods, refine participant selection criteria, and gauge the appropriateness of the sample size for our research objectives. The insights gained from this pilot phase informed subsequent adjustments to our approach, ensuring that the main study's recruitment process was both efficient and representative of the target population.

The inclusion criteria of this study revolved around selecting participants aged 18 to 25 with an active presence on TikTok and engagement with educational content from influencers. This approach was deemed appropriate as it aligns with the study focus on South African youth's engagement patterns. The specific target group in this study ensured relevancy and meaningful insights into a demographic likely to be influenced by such content. Excluding individuals outside this age range ensured that the study's data is focused on the primary audience of interest, enhancing the study's internal validity and the likelihood of finding relevant patterns.

The study focuses on TikTok Influencers who create educational content for users. Selecting influencers on this study was guided by their influence within context of South African youth's educational engagement. It was determined by some factors such as the number of followers influencers have engagement rates, frequency of sharing educational content and the type of educational content they produce. The researchers recruited the participants from TikTok and set targeted messages to users specifically those from South Africa. This recruitment approach offered a direct and effective approach to engage potential participants who meet the study's criteria.

3.3. Research instrument

This research project sought to ascertain quantitative pilot study information about the educational content that is consumed by the South African youth who follow TikTok influencers, by utilising an online survey that was given on TikTok. The inquiries were intended to be straightforward, brief, and connected to the exploration target, centring around the kinds of educational content consumed, how often they are enjoyed, participation level, and how the members viewed its practicality in encouraging learning and development. Google Forms was implemented in the production of the study, and its validity and dependability were tested in a pilot test. The research had reach to all contributors, and the collected data was examined utilising analytic software, for example, SPSS, to draw lucid deductions about the educational effect of TikTok on young South Africans. Generally, the utilisation of an online study on the TikTok app supplied a comfortable and adequate means of collecting material from this target group. The statement implies that something is true or accurate. It suggests that whatever it is referring to is accurate and reliable.

The survey pilot study administered in this study had 21 questions in which they included closed-ended questions, which offered predefined response options. Open-ended questions which allowed participants to provide detailed, quantitative responses. Likert Scale Questions: These use a scale to measure the level of agreement or disagreement with a statement. "Please rate how helpful you find educational content on TikTok for your learning and development". The questions were

developed to align with the research objectives, which was to gather information about the types of educational content consumed by South African youth on TikTok, their engagement levels, perceived benefits, and practicality in learning and development. The questions were kept straightforward and brief to encourage participation and to ensure that they directly relate to your exploration target.

3.4. Data collection

This study investigated the educational impact of TikTok on South African youth using an online survey administered through Google Forms. The survey asked about the types and frequency of educational content consumed, engagement with the content, and perceptions of its effectiveness in promoting learning and development. The language of the survey was English, as TikTok content is predominantly in English and widely spoken in South Africa. Recruitment was done through social media platforms, including TikTok and WhatsApp, to ensure a diverse range of TikTok users were included. The study contributes to the corpus of scholarship on the use of social media platforms for academic pursuits.

3.5. Data analysis

This study employed a descriptive data analysis as part of our pilot study on investigating the educational impact of TikTok on South African Youth. The descriptive analysis phase sets the stage for our investigation by providing essential details about the dataset's characteristics, dispersal, and relationships, empowering us to identify valuable insights that guide the subsequent stages of our research. Our pilot research established a foundation for understanding how younger South Africans use TikTok, by means of descriptive data analysis. Our study's primary focus was to investigate how young people in South Africa use TikTok to access educational content and form opinions about it. To achieve this, we implemented the following steps:

1. Data Preparation:

The Collected surveys were organised and categorised for analysis. Raw figures were polished, organised, and optimised for usage with statistical programs.

2. Descriptive Measures:

Diverse descriptive statistics were applied to consolidate and identify the dataset. These measures included:

- Using statistical methods, the average age of individuals involved, the midpoint of involvement with learning materials, and the standard perception of content impact were determined.
- These statistical measures were applied to evaluate the dispersion and span of the dataset.

3. Data Distribution:

Histograms, Charts, and table distributions were generated to visualise the distribution of data across different themes. This allowed us to identify any clustering or patterns in engagement behaviours.

4. Variable Relationships:

The computation of correlation coefficients helped identify links between variables. Our research examined the relationship between TikTok usage and the belief in its capacity to foster academic growth.

The data analysis centred on discovering informative insights into how TikTok influences the educational development of young people in South Africa through statistical investigation of key relationships and trends. The descriptive data analysis provided crucial preliminary insights that set the foundation for our pilot study. We gained insight into how characterising participants, depicting data trends, and examining connection dynamics can provide clues regarding the effect of TikTok on educational interest among South African adolescents.

4. RESULTS AND DISCUSSION

4.1. Background Information of TikTok Users

This section provides the description of the participants involved in this study. The study involved 22 participants nationwide in South Africa. This was conducted to obtain more knowledge about the study’s participating population.

Participants Demographics

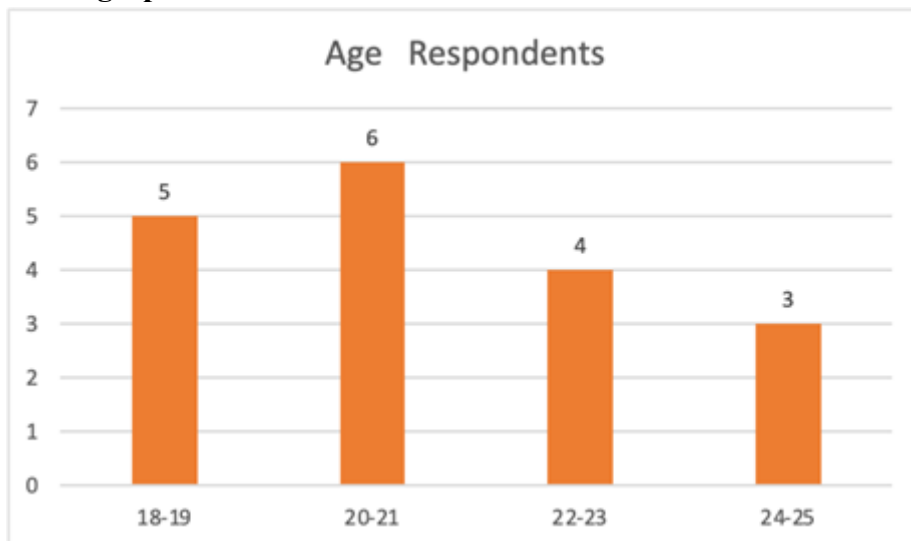


Figure 1. Participants age group

The study's participants are described, including their age groups, gender, educational levels, and national identity. In the study, 22 individuals from South Africa were deliberately chosen based on their compatibility with the research question’s characteristics. The participants' age groups were divided into five categories, with 81.8% of participants falling into the 18-24 age group, and the other age groups were not represented at all.

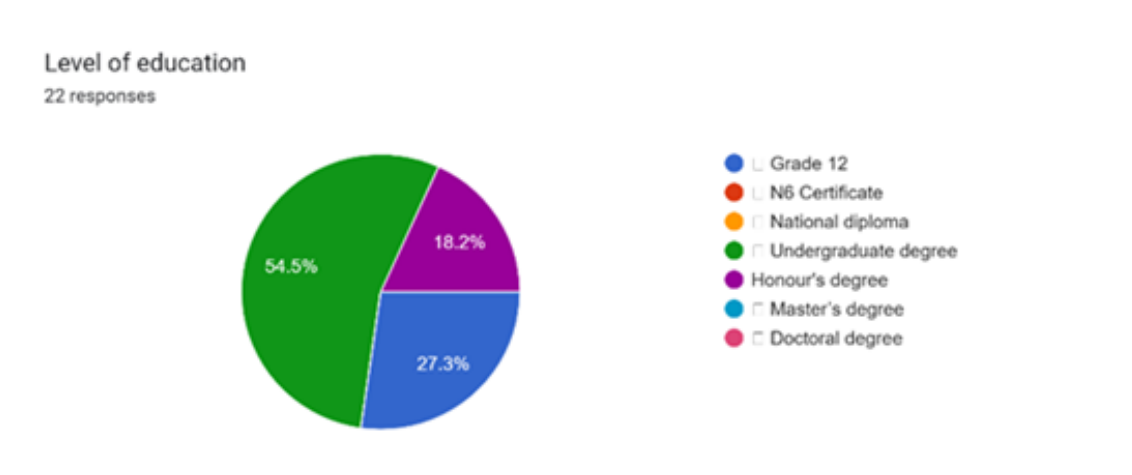


Figure 2. Participants educational levels

The study had an unbalanced gender proportion, females constituted the majority (68%) of the sample population, while males made up 38%. From undergraduate to master's degrees, the educational levels of participants covered a broad spectrum, with the most prominent subset consisting of those with undergraduate qualifications (54.5%). It was crucial to recruit solely South Africans for the investigation, thereby guaranteeing its scope.

4.2. The Effectiveness of TikTok on Education

This section delved into the impact of TikTok on educational experiences, with respondents answering questions concerning their use of the platform.

TikTok has become a popular platform among the South African youth for educational purposes. As per the survey outcome, approximately 36,4% of respondents access TikTok content daily for educational pursuits, compared to around 27,3% who do so sporadically. This indicates that TikTok is highly accessible and frequently used for career advice and learning. The analysis of TikTok user behaviour uncovered that many users are drawn to educational content focusing on health and wellness (31.8%), followed by academic guidance (22.7%) and personal development (13.5%).

Research findings highlight the potential of social media platforms, such as TikTok, to transmit educational knowledge to younger audiences (Erenli, 2021; Alavi & Alikhani, 2020). Moreover, social media platforms can be leveraged to promote academic information that promotes academic accomplishment and competency growth (Wang et al., 2021). Hence, there is an evident potential which exists for TikTok to emerge as a reliable channel for distributing informative educational content.

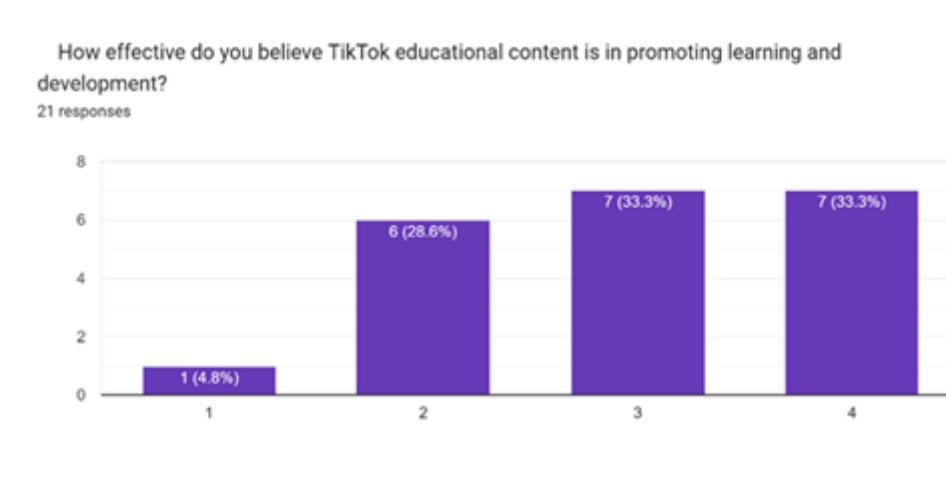


Table 1. The Impact of TikTok on educational experiences

Table 1 indicates that 66% of participants believe that TikTok educational content is highly effective in promoting learning and development. Only 4.8% believe it is ineffective, while 28.6% are in between. This data suggests that TikTok is perceived as an effective platform for educational content. This perception is supported by studies such as Wang et al. (2021) and Alavi and Alikhani (2020), which showed that social media platforms like TikTok can be highly effective in delivering educational content to younger audiences, especially when the content is designed to be engaging and interactive.

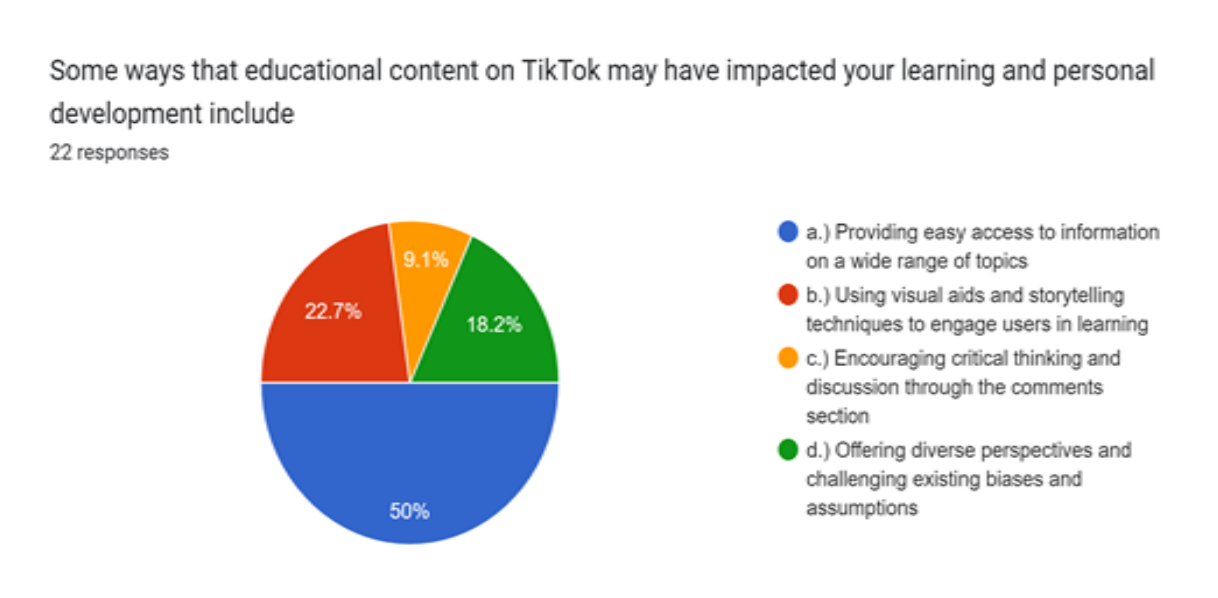


Figure 3. Impact of TikTok educational Content on personal growth

Lastly, as indicated by figure 3, 50% of the respondents have attempted utilising the knowledge acquired through TikTok educational content for studying or personal growth and reported favourable results. 50% of the participants showed interest in attempting it. Figure 3 suggests that 50% of the participants think TikTok allows users to quickly discover information on multiple subjects. Around 22,7% of individuals revealed that learning through interactive multimedia

materials, like those commonly seen on TikTok, successfully captured their attention. Around, 9.1 % of people, declared that TikTok's comments encourage critical thinking and discussion. In addition, 18.2% of users discovered that TikTok facilitates exposure to diverse perspectives and challenges existing biases and assumptions.

Based on the research, it appears that TikTok educational content can be applied in real-life scenarios, leading to positive learning and personal development outcome. However, it is worth noting that everyone’s learning experience with TikTok content will be distinct due to their unique learning style and drive. The findings also with figure 3, suggests that most Youth in South Africa relies on TikTok to have access to certain information, this may be with career advice, health activities and institutions application processes.

In conclusion, TikTok has become an effective platform for educational content delivery among the South African youth. The high frequency of TikTok use and the diverse range of educational content viewed by users demonstrate its potential as an educational platform. Findings from investigations and respondent feedback demonstrate the potential of TikTok educational content in promoting cognitive development, academic achievement, and personal skills development. Despite existing findings, additional research is necessary to delve into the extended effects of TikTok educational material on scholastic success and proficiency growth.

4.3.Data Analysis of TikTok Influencers

Summary of TikTok Influencers survey results in.

Participant Demographics and Preferences

Demographics:

| <i>Gender</i> | <i>Female</i> | <i>Male</i> |
|---------------------------|-----------------------|------------------------|
| | 57.1% | 42.9% |
| <i>Age</i> | <i>18-24</i> | <i>25-35</i> |
| | 71.5% | 28.5% |
| <i>Educational levels</i> | <i>Honours degree</i> | <i>Master's Degree</i> |
| | 71.5% | 28.5% |

Content Preferences:

| <i>Practical tips and personal expertise</i> | 57.1% |
|--|---------------------|
| <i>Current events and topical issues</i> | 42.8% |
| Engagement and Impact: | |
| <i>Preferred Strategies:</i> | <i>Participants</i> |
| <i>Visual aids, hummer, hashtags</i> | 7 out of 7 |

| | |
|--|--|
| <i>Effective Content Types:</i> Health, finance, personal development | 5 out of 7 |
| <i>Audience</i> <i>Comments/questions</i> <i>Engagement Impact:</i> Positive impact | <i>Engagement:</i> 7 out of 7 4 out of 7 3 out of 7 |
| No significant difference | |

Challenges and Opportunities:

| | |
|---|------------|
| <i>Challenges for Influencers:</i> Limited resources, lack of interest | 7 out of 7 |
| <i>Opportunities for Education Content:</i> Social change, awareness | 7 out of 7 |
| <i>Positive TikTok Impact:</i> On South African youth | 7 out of 7 |

Table 2. Participant Demographics and Preferences

A research survey was conducted among seven TikTok influencers in South Africa to explore the platform’s potential as an educational medium for youth. The sample consisted of individuals holding a variety of academic credentials, including honours and master’s degrees and Influencers with more than 10k followers. This range of follower counts indicates a broader scope of influence for many influencers. The majority (57.1%) used the platform to share knowledge and skills, concentrating on educational material offering helpful advice or remedies. Finally, participants underscored the educative value of the content they broadcast to their audience, with nearly 42% resolutely asserting their consent (Strongly agreeing) and a close approximation of 42% concurring with this position (agreeing).

The results indicate that four out of 7 participants (57,1%) mentioned that they base their decision on educational content that can provide practical tips or solutions to common problems and on their personal interests and expertise. This suggests that these influencers are using TikTok as a platform or medium to share their knowledge and skills acquired to their audiences, rather than focusing on entertainment and popularity in terms of likes. While 3 out of 7 participants (42,8%) mention that they base their decision based on current events and topical issues.

In terms of considering the educational value of the content when promoting it, Participants responded as such on the Likert scale rating, 42, % of them strongly agree that they consider the educational value of the content when promoting it to the audiences, while another 42, % agree with the statement and 14,2% participant chose neutral. No participants chose the disagree or strongly disagree option. This suggests that influencers usually consider the educational value they promote to audiences.

It is not surprising that many participants prioritise content that aligns with their personal values and interests when promoting educational content on TikTok. Previous research has shown that content creators often draw from their personal experiences and interests when creating content for social media platforms (Marwick & boyd, 2011). This finding reinforces the notion that “authenticity” is vital in sponsored content, as influencers must promote products or information that resonate with their perceived persona (Abidin, 2018).

While only a slight majority (84%) of individuals surveyed considered the educational value of content during promotion, other research indicates that educational content can successfully engage influencers with their audience (Chugh, 2020). Through the provision of useful knowledge, influencers can create a loyal fan base and cement their reputation as niche authorities.

4.4. Audience Engagement

The investigation showed that learning material was most successful when it tackled pressing social and political issues, along with topics like wellness, financial management, personal growth, and practical abilities. Each participant (100%) mentioned applying creative and visually appealing formats, popular hashtags, trending hashtags, and activities to expand their reach. Seven out of ten influencers involved in the study interacted with their viewers by addressing comments and queries concerning the educational substance, leading to a favourable impact on audience participation (40%). Participants emphasised that the content's relevance and value were primary reasons for the increase in engagement.

Challenges and Opportunities

Although the platform offers unique opportunities, the research found that it faces challenges in fostering engagement with educational content due to factors like insufficient funds, lack of audience engagement, and restricted platform features (based on responses from 7 individuals). Despite facing difficulties, every participant shared the view that showcasing educational content on TikTok could have a beneficial effect on South African youngsters, especially when it comes to boosting understanding and encouraging social progress.

This research underscores the significance of correlating personal beliefs and passions with the dissemination of academic material through TikTok. However, there is a need for influencers to also consider the educational value of the content and use metrics to measure the success of their promotion. Furthermore, the results indicate that utilising creative and visually appealing formats can help attract and retain younger viewers with shorter attention spans. The results suggest that

promoting educational content on TikTok has the potential to have a positive impact on South African youth, but there are challenges such as limited resources and budget, which need to be addressed. Overall, the study leverage that by having the potential of social media platforms like TikTok, we can increase access to education and promote positive learning outcomes among young people in South Africa and beyond.

5. CONCLUSION

In conclusion, this study demonstrates that TikTok influencers hold immense potential to impact educational content consumption and engagement among South African youngsters. Research indicates that TikTok has the potential to be a valuable tool for sharing educational content, with influencers playing a crucial part in shaping their fans' mindsets about acquiring knowledge. The investigation underscores the possibility that TikTok might serve as an instrument for enhancing academic achievements among adolescents, particularly those residing in regions where conventional educational resources are scarce. Policymakers and educators ought to acknowledge the capabilities of TikTok as an instrument for connecting with youth and promoting fair access to educational opportunities.

Based on the findings, several recommendations emerge. Initially, teachers, government agencies, and educational establishments ought to consider the idea of incorporating TikTok and other social media outlets into traditional learning approaches while simultaneously providing and accessing relevant content like career guidance. By exploring these approaches, policymakers can help promote knowledge sharing through TikTok. Moreover, social media networks such as TikTok must continually innovate functionalities that foster and encourage educational material creation and collaborate with educational institutions to verify content's accuracy and suitability. Additionally, further research should be conducted to explore how TikTok influencers impact learning outcomes in various contexts and populations. Lastly, upcoming investigations ought to explore the possible function of TikTok and similar social media outlets in bridging the gap in educational equality, particularly in places where access to traditional education may be limited. To sum up, this research highlights the value of TikTok as a tool for educational consumption and the impact of influencers on the opinions of young people.

REFERENCES

- Abbas, L., Fahmy, S., Ayad, S., Ibrahim, M. and Ali, A. (2022) TikTok Intifada: Analyzing Social Media Activism Among Youth. *Online Media and Global Communication*, Vol. 1 (Issue 2), pp. 287-314. Retrieved from <https://doi.org/10.1515/omgc-2022-0014>.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barrot, J.S. (2022). Social media as a language learning environment: a systematic review of the literature (2008-2019). *Computer assisted language learning*, 35(9), pp.2534-2562.

-
- Chugh, R. and Ruhi, U. (2018). Social media in higher education: A literature review of Facebook. *Education and Information Technologies*, 23, pp.605-616.
- Deng, D.S., Seo, S., Li, Z., & Austin, E.W. (2022). What people TikTok (Douyin) about influencer-endorsed short videos on wine? An exploration of gender and generational differences. *Journal of Hospitality and Tourism Technology*, 13 (4): 683 – 698.
- Duan, C. (2023). Tik Tok: A new way of English learning. *Journal of Education, Humanities and Social Sciences*, 8, pp.127-133.
- Escamilla-Fajardo, P., Alguacil, M., & López-Carril, S. (2021). Incorporating TikTok in higher education: Pedagogical perspectives from a corporal expression sport sciences course. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 28, 100302.
- Faloye, S.T. and Ajayi, N. (2022). Understanding the impact of the digital divide on South African students in higher educational institutions. *African Journal of Science, Technology, Innovation and Development*, 14(7), pp.1734-1744.
- Falgoust, G., Winterlind, E., Moon, P., Parker, A., Zinzow, H., and Madathil, K. C. (2022). Applying the uses and gratifications theory to identify motivational factors behind young adult's participation in viral social media challenges on TikTok. *Human Factors in Healthcare*, 2, 100014.
- Greenhow, C. and Chapman, A. (2020). Social distancing meets social media: digital tools for connecting students, teachers, and citizens in an emergency. *Information and Learning Sciences*, 121(5/6), pp.341-352.
- Kemp, S. (2023). Digital 2023: Global Overview Report DataReportal Global Digital Insights. DataReportal. Retrieved April 26, 2023, from <https://datareportal.com/reports/digital-2023-global-overview-report> .
- Kutu, I., F. (2021). The use of social media for academic purposes by postgraduate information studies students at the University of KwaZulu-Natal. Pietermaritzburg: University of KwaZulu Natal. (Thesis - BLIS-Hons)
- Laura, C., and Carles, Marín-Lladó. (2022). Free Palestine on TikTok: from performative activism to (meaningful) playful activism. *Journal of International and Intercultural Communication* 15 (4): 414 - 434.
- Lee, E., Kim, J., and Ham, C. (2017). Why do Instagram users post hashtags? Brand management implications based on the gratifications-seeking theory. *Journal of Research in Interactive Marketing*, 11(3), 249-267
- Lin, K. Y., and Lu, H. P. (2011). Why people use social networking sites: An empirical study integrating network externalities and motivation theory. *Computers in Human Behavior*, 27(3), 1152-1161.
-

-
- Literat, I. (2021). “Teachers act like we’re robots”: TikTok as a window into youth experiences of online learning during COVID-19. *AERA open*, 7, 2332858421995537.
- Perez, E., Manca, S., Fernández-Pascual, R. and Mc Guckin, C. (2023). A systematic review of social media as a teaching and learning tool in higher education: A theoretical grounding perspective. *Education and Information Technologies*, pp.1-30.
- Scott, N. and Goode, D. (2020). The use of social media (some) as a learning tool in healthcare education: An integrative review of the literature. *Nurse Education Today*, 87, p.104357.
- Shao, G. (2009). Understanding the appeal of user-generated media: A uses and gratification perspective. *Internet Research*, 19(1), 7-25. Retrieved from <https://doi.org/10.1108/10662240910927814> .
- Sinclair, T. (2021). An explanatory study on the effect TikTok has on the consumer buying behaviour of Generation Z, within the COVID-19 pandemic. Johannesburg: Independent Institute of Education, Vega School. (Thesis – BA Hons)
- Smith, G., and Gwilliam, M. (2023). How long can a TikTok be? Video length & how to make TikToks longer. *Dexerto*. Retrieved April 26, 2023, from <https://www.dexerto.com/entertainment/how-long-can-a-tiktok-be-1554929/> .
- Stafford, T.F., Stafford, M.R. & Schkade, L.L. (2004). Determining uses and gratifications for the Internet. *Decision sciences*, 35(2), pp.259-288.
- Swart, J. (2021). Experiencing Algorithms: How Young People Understand, Feel About, and Engage with Algorithmic News Selection on social media. *Social Media + Society*, 7(2). Retrieved from <https://doi.org/10.1177/20563051211008828> .
- Wang, X., Chen, X., & Liang, Y. (2011). The effects of social media on college students. *Journal of Educational Technology Development and Exchange*, 4(1), 1-14.
- West, C. (2023). 27 TikTok Stats Marketers Need to Know in 2023. *Sprout Social*. Retrieved Aug 07, 2023, from <https://sproutsocial.com/insights/tiktok-stats/> .
- Xiuwen, Z. and Razali, A.B., (2021). An overview of the utilization of TikTok to improve oral English communication competence among EFL undergraduate students. *Universal Journal of Educational Research*, 9(7), pp.1439-1451.
- Xu, L., Yan, X., & Zhang, Z. (2019). Research on the Causes of the “Tik Tok” App Becoming Popular and the Existing Problems. *Journal of Advanced Management Science*, 7 (2): 59 – 63.
-

SSIRC 2023-120**TECHNOLOGY-ENABLED GENDER-BASED VIOLENCE: STUDENTS' EXPERIENCES AT A UNIVERSITY IN SOUTH AFRICA****B.H. Mutongoza**

University of Fort Hare, South Africa

E.A. Hendricks

University of Limpopo, South Africa

ABSTRACT

The prevalence of gender-based violence (GBV) in South Africa has attracted public attention. Although attempts have been made at various levels to address this widespread violence, GBV remains prevalent in most communities. Technology-enabled gender-based violence (TEGBV) has begun to come to the forefront of efforts to combat GBV in South Africa, as perpetrators are known to use the internet and mobile technologies to stalk, bully, harass and defame their victims. This study, therefore, sought to explore students' experiences of TEGBV in South Africa. The study adopted a qualitative approach, and data were collected using online interviews with 21 students at a South African university where cases of GBV have been prominent. The findings of this study revealed three main categories of TEGBV experiences: cyberbullying and harassment, sextortion and doxing, and hacking and online impersonation. Thus, the researchers recommended that universities raise awareness of the devastating impact of TEGBV as this would potentially help educate at-risk students and staff on what constitutes the various forms of online violence, how to recognise it, and how to seek help. This study contributes to the ever-evolving discipline of violence, especially violence against women, by creating a typology of this emerging form of violence against women and by demonstrating the prevalence of this violence. As such, this study will assist policymakers and university managers in formulating policies and protective measures for students in their institutions to minimise the harm and ultimately eliminate violence in universities.

KEYWORDS: gender-based violence; online violence; technology; university**1. INTRODUCTION**

Technology-enabled gender-based violence (TEGBV) refers to any form of gender-based violence that is facilitated using technologies such as the internet, social media, mobile phones, and other digital platforms (Jones & Mitchell, 2020; Mukhija, 2020; Henry, Flynn & Powell, 2021). This can include cyberstalking, online harassment, revenge pornography, and distributing intimate images without consent. The different types of cyberbullying experienced mainly by students, according to Cilliers (2021), are contained in Table 1 below.

Table 1. Cilliers' (2021) typologies of bullying

| Type of cyberbullying | Definition |
|------------------------------|---|
| Harassment | Rude, insulting, or threatening messages which attack the victim's physical or social attributes |
| Flaming | Offensive, rude, and vulgar language to insult and threaten someone |
| Denigration | Messages that are untrue, harmful, or even cruel often come with 'evidence' of a digitally altered picture to present a false image of the victim. |
| Identity theft or masquerade | masquerade Pretending to be someone else to send abusive messages |
| Outing | Outing involves posting personal communications/images containing intimate and potentially embarrassing personal information. |
| Trickery | The victim is tricked into thinking that communication is private to share intimate details, after which the bully will threaten to distribute the information. |
| Exclusion | Bully decides who can be a member of an online group by 'unfriending' those not deemed worthy. |
| Cyberstalking | Sending repeated messages that threaten to harm, intimidate or is highly offensive to the victim. |

Technology is increasingly becoming a tool of choice for perpetrators of gender-based violence (GBV), particularly against women and girls, as it allows perpetrators to hide behind anonymity and reach a wider audience (Douglas, Harris, & Dragiewicz, 2019; Bailey, Henry, & Flynn, 2021). The use of technology is especially worrisome for stakeholders because technology enables the rapid spread of harmful content and can result in long-lasting consequences for survivors (Dunn, 2021; Gosse, 2021; Makinde et al., 2021). As such, there are increasing calls for stakeholders to recognise and address TEGBV as a critical concern due to the significant psychological, emotional, and physical impacts it has been noted to leave victims with (Silva, Nogueira & Rodrigues, 2021; Thulin et al., 2021).

As with other global contexts, TEGBV has become a growing concern in South African universities (Pillay & Sacks, 2020; Makinde et al., 2021). Some existing studies have revealed that there has been a significant increase in TEGBV incidents in higher education institutions in the country, with female students and staff members being disproportionately affected (Nduna & Tshona, 2021; Hendricks, 2022). It is reported that social media platforms and messaging applications are the most common tools used to perpetrate GBV in universities and that the COVID-19 pandemic exacerbated this issue as online interactions have become the primary mode of communication for many (Bourgault, Peterman & O'Donnell, 2021; Dlamini, 2021; Nduna & Tshona, 2021). There is a wealth of evidence that demonstrates that TEGBV has significant consequences for victims, including mental health impacts, academic disengagement, and physical harm (Posetti et al., 2021; Gomes, Sardá & Granja, 2022; Marganski, Melander, & DeKeseredy,

2022). Although many South African universities have implemented policies and programs to prevent and address online violence, there remains much work to be done to ensure that students and staff members are safe and protected from all forms of GBV, including those facilitated by technology (Machisa et al., 2021; Mahlangu et al., 2022). Against this background, this study sought to explore students' experiences of TEGBV at a South African university.

2. METHODOLOGY

Research paradigm, approach, and design

For the researchers to investigate university students' TEGBV experiences, this study was informed by a constructivist paradigm. This paradigm allowed for a multi-layered and socially created reality which can be discovered using meaning-oriented methodologies which allow for flexibility in the collection of data (Creswell & Poth, 2018). Therefore, the qualitative approach underpinned the study because this approach allowed the researcher to interrogate students' experiences from diverse perspectives (Leavy, 2017; Creswell & Creswell, 2018). The study sought to examine students' experiences regarding TEGBV, and it was thus informed by a single case study design because this design allowed for an in-depth understanding of these experiences (Leavy, 2017; Creswell & Poth, 2018; Yin, 2018).

Sampling method

To gain an in-depth insight into the experiences of students and lecturers, the researchers purposively selected a rural institution in South Africa where GBV was self-admittedly high. The researchers purposively sampled students best suited to contribute to the study at the selected institution. Thus, students' participation was restricted to only those who had been at the institution for at least three (3) years and had survived TEGBV. This allowed the researchers to use rich experiences from survivors of TEGBV at the institution, consequently allowing the participants to reference the changes experienced and challenges emerging from adopting online learning. The final sample of this study was composed of 21 students who were self-reported survivors of TEGBV.

Data collection and analysis

Out of the data collection tools available for qualitative research, data for this study were collected using semi-structured online interviews that lasted for approximately 30-45 minutes each. Because the subject of inquiry could cause harm, efforts were made to ensure that the participants were not exposed to any harm. Participants were also informed that they could terminate the interview whenever they felt uncomfortable, and a professional counsellor was also present to conduct a debriefing with participants after completing the interviews. Once the data had been collected, it was analysed using thematic analysis because it enabled the examination of different participant perspectives and helped the researchers to summarise the key features of the collected data (Saldana, 2014; Leavy, 2017). The first phase of thematic analysis involved familiarising with the data. To achieve this, the researchers repeatedly engaged with data and documented thoughts on the potential themes and codes arising from the data. This was followed by the generation of initial codes where the researchers utilised peer debriefing and reflexive journaling. After this, the

researchers searched for and reviewed themes arising from the data. This was achieved by vetting the themes and testing them for referential adequacy by returning to the raw data. The final two steps involved defining and naming themes and producing the report. The researchers used member checks and peer debriefing to establish trustworthiness at this stage.

3. RESULTS AND DISCUSSION

When asked about their experiences of technology-enabled gender-based violence at university, participants revealed three main categories of experiences, namely:

- cyberbullying and harassment,
- sextortion and doxing, and
- hacking and online impersonation.

These categories of experiences are discussed in greater detail in the following subsections, which detail the verbatim responses of the participants in the study.

Cyberbullying and harassment

Several participants in this study revealed that cyberbullying and online harassment were prominent features of their TEGBV experiences. Participants revealed that the invisibility of perpetrators accorded by the online environment helped perpetuate this form of violence. A case in point can be drawn from a participant who lamented,

I get a lot of mean comments from ghost accounts when I post pictures. I have been called a fat ugly pig because of my weight by some...it is very depressing, and it makes me feel like I am less human or something like that. I think this is a problem mostly for female students than males. (Student 2)

Participants also noted similar experiences that they had since reduced their social media reach by unfollowing and disassociating with strangers. One can draw from the participant who argued,

Some of my posts get some very derogatory comments and I have had to unfollow strangers or profiles that are not real – like the ones that use names that are meaningless and have no real pictures. I have noticed that male students generally attack me for being a queer person and not gender-conforming. It is a constant flow of insults, and I sometimes contemplate suicide. What is the purpose of living if people in the university are this [violent]...? (Student 18)

This was substantiated by a participant who noted,

It is exhausting to constantly must defend myself and my ideas against sexist comments and insults...I cannot just be myself without someone attacking me. I have received everything from comments about my appearance to direct threats of physical violence. It is scary to think that there are people out there who hate me because of my gender. It is not just trolling or harmless jokes, as they call it – this is harmful behaviour with real victims. (Student 12)

Uninvited pictures of genitalia were also identified as a feature of some of the harassment at the university. Such experiences were embodied in the response of a participant who recalled,

I have several guys who send me unsolicited pictures of their [private parts] ...there was also another case at our residence last year where a guy was anonymously sending such images and messages to female students in our residence and harassing them. He kept asking for sexual favours even when the female students had clearly declined his advances. I have had to take a break from social media – maybe if more people speak out against this behaviour, we will get somewhere in trying to reduce it. (Student 7)

The findings from our study suggest that the invisibility provided to perpetrators on digital platforms has influenced how cyberbullying and online harassment happen. Hiding behind fictitious identities that can barely be unmasked, perpetrators of TEGBV harass and taunt their victims mercilessly and seldom get found out. Hendricks (2022) argues that this stems from the use of technology in every aspect of people's lives, creating a power imbalance that makes it exceedingly challenging to combat these forms of gendered violence. Cyberbullying and online harassment harm psychosocial development, self-esteem, and academic success and cause mental health issues like depression and social anxiety among university students in ways that hamper access to quality university education and success within the system (Bailey et al., 2021; Dunn, 2021). The pervasiveness of cyberbullying reported in our study corroborates with Kriel (2021), who argues that university students are more susceptible to cyberbullying due to accessing social media than other demographic groups. This is compounded by the reality of a general lack of awareness and responsiveness to cyberbullying in South Africa (Cilliers, 2021). Our findings also agree with previous studies that show that students who experience cyberbullying suffer from despair, low self-esteem, subpar academic results, and attempted suicide (Schenk & Fremouw, 2012). Sadly, because there has not been much attention given to coping mechanisms for cyberbullying among students, retaliation, staying silent, or ignoring bullying have all been identified as coping mechanisms. 'Blocking' the cyberbully and avoiding the social media site where the bullying occurs appear to be the most common online coping techniques, whilst offline coping techniques rely on asking friends for support (Cilliers, 2021). These coping mechanisms suggest that university students utilise independent, goal-oriented coping mechanisms to combat cyberbullying.

Sextortion and doxing

Closely linked to cyberbullying and harassment were reports of sextortion and cyberbullying experiences at the university. Sextortion – a term derived from 'sex' and 'extortion'- involves using images or videos to coerce someone into performing sexual activities or providing more sexual content (McMahon, Bressler & Bressler, 2016). On the other hand, doxing is a form of online harassment that involves the public release of someone's personal information without their consent (McMahon et al., 2016). A typical case of sextortion was reported by a participant who alleged,

My previous girlfriend and I had a fallout, and we ended up fighting so much...as time went by, she started threatening me with publishing some of our intimate videos that she had secretly recorded. I felt like I was being coerced into sex [sexual intercourse] when I did not want to. I could have reported it, but the shame of doing that as a man got to me...I felt like nobody could believe me, so I just ended up doing it with her. If only I had known that it would

only get worse and worse...I eventually spoke out and was [ridiculed] for not being man, enough. (Student 16)

This can be corroborated by the experience of another participant who bemoaned,

I have been threatened with getting outed as a gay man at this university...My sexuality was even disclosed by someone else using a fake Facebook account...I feel like my privacy was not respected – there is very little that can be done to identify perpetrators, and we are constantly under this discomfort of getting private information dished out to the public like that. They kept asking for more explicit images, or else they would circulate the ones they had gotten hold of. (Student 13)

In recalling doxing experiences, another participant recollected,

It was terrifying to see my personal information posted online for all to see...I was violated. I did not do anything to deserve this; it was just someone trying to punish me for who I am. Me and this girl had a sharp disagreement, and we do not like each other at all...she created a fake story of how I had scammed her and posted my picture and contact details. Before I knew it, I was being hounded by people who called me all sorts of names. I ended up having to change numbers, and reports were made [police reports were lodged], but it was all too slow, so I ended up withdrawing the case. (Student 4)

This experience was verified by the participant who noted,

Online abuse is [widespread] because perpetrators find it easy to abuse and manipulate their victims. I have experienced cases where a student is targeted by the opposite gender for posting [publishing] of their private pictures that they may have sent to their lovers when in relationships. I have seen it done by females and males here, and it is painful to watch someone who becomes a victim of revenge porn from former partners who feel aggrieved in some way. (Student 9)

The constant availability and use of technology have made it simpler than ever to post intimate and private photos of people. These sexual photographs can be shared and viewed by innumerable people thanks to the interconnection of the online world, which enables their publication across different online platforms. Unfortunately, in these transactions, the issue of the featured person's consent to distribute these sexual images may be absent. In other words, the individual whose image is captured might not have given consent for the original recipient to share the photos or even approved the initial image capture (Eckert & Metzger-Riftkin, 2020). Similar issues also arise concerning revenge pornographic material (usually videos) distributed online without the victim's consent (Eckert & Metzger-Riftkin, 2020; Nduna & Tshona, 2021). The lack of sufficient technological resources and expertise has resulted in slow progress concerning the prosecution of offenders, and victims are continually left at the mercy of the perpetrators, as revealed by the present study's findings. The findings above corroborate Powell and Henry (2017), who argue that while sexting is a common practice, it is concerning when done without consent as it becomes a form of harassment. Male students are generally identified as the chief perpetrators of this form of

violence against female students, and it usually degenerates into the sending of unsolicited pornographic material (Dlamini, 2021; Henry & Powell, 2015).

Hacking and online impersonation

Another worrisome manifestation of TEGBV was reported to be hacking and digital impersonation. Participants revealed that disagreements that began in person were sometimes extended to the digital space. One such case can be drawn from a participant who reported,

After an argument with one of my male classmates, there were constant threats of 'You think you are clever...you will see'. Maybe for some, it is a coincidence, but for me, I saw it as targeted. My online learning profile was hacked twice, and in both incidents, a test was written for me badly, and I performed terribly. I felt powerless. Fortunately, both lecturers understood, and I got a chance to rewrite. In my view, we were having an academic argument, but someone ended up feeling disrespected because they believe a woman cannot talk back to a male. (Student 20)

Similar trends were also identified in the experiences described by a participant who recalled,

There have been three instances where someone has created fake Facebook pages in my name, and I have been targeted because I am non-binary. I am vocal about my identity, and now there are these people who feel like they can have a say in my sexuality...the result has been a painful navigation of profiles that carry my name and my pictures, luring cisgender male students into relationships with that online persona. Once, I had to explain to a guy who believed we were in love that it was not me. I have tried to report to the university, but even they cannot really do anything. This cloak of invisibility is what makes people very active and dangerous online. (Student 6)

Another painful experience was also reported by the participant who bewailed,

Technology has been central to some of the GBV I have been exposed to. For a long time, I wanted to commit suicide. I was shocked that someone could impersonate me so convincingly. I felt violated and exposed; they took hold of my online identity, and I could not really do anything. Many hurtful lies were spread about me and what I stand for...people even believed some of the fake stories that were created. It was all done by another student because I am gender-fluid. (Student 10)

This was strikingly like another participant who lamented,

I used to have a blog that promoted female excellence...there was a lot of slandering and threatening that happened [...] to shut me down. Eventually, my blog was hacked, and some very explicit videos were posted there...it was very difficult to explain that it was not me to my friends and followers. What had started as a positive thing was suddenly turned into almost an adult site...when I eventually regained control, the damage had been done. I was feeling emotionally drained, and I was in the pits with anxiety...I just closed the whole thing and walked away. (Student 1)

The study's findings reveal that uncertainty surrounding the self's online image is part of a larger complex of discussions about authenticity, trust, and reputation and how they relate to impersonation in online environments. On the one hand, all online representation is viewed with suspicion; no person is believed to be who they portray to be, and all internet sources are thought to require confirmation. Online impersonations are no longer considered innocuous practical jokes because they can be disastrous for victims, for example, identity theft and debt incurred using another person's identity (Ullah, Xiao & Barker, 2016). Most young adults use social media, and some of the first are users of the internet who are somewhat naïve. Generally, women are more likely than males to use social media, with 68% of women compared to 62% of men. As a result, women are more likely to be impersonated and hacked (Ullah et al., 2016). Online catfishing is a relatively recent societal phenomenon, and many online users still do not know what it is. It is evident that it primarily affects female university students and members of the queer community who are catfished, which is a significant type of TEGVB (Ullah et al., 2016).

4. CONCLUSION AND RECOMMENDATIONS

In conclusion, TEGVB is a complex issue that requires a multi-faceted and coordinated response from different actors because it occurs in many ways and mainly affects vulnerable groups such as females and queer communities in higher education institutions across South Africa and globally. The prevalence of cyberbullying and harassment, sextortion and doxing, and hacking and online impersonation revealed in this study underscores the need for effective policies and interventions to curb this phenomenon. Based on the study's findings, the researchers recommend that universities raise awareness among the public and relevant stakeholders on the devastating impact of TEGVB. This would potentially include educating at-risk students and staff on what constitutes the various forms of online violence, how to recognise it, and how to seek help. Such awareness can be created through public campaigns, workshops, and training programs. Another important recommendation is to strengthen the legal framework to ensure that perpetrators of TEGVB are held accountable for their actions. This includes establishing clear and enforceable policies and regulations that criminalise these forms of violence and providing adequate resources for security personnel to investigate and prosecute offenders.

REFERENCES

- Bailey, J., Henry, N., & Flynn, A. (2021). Technology-facilitated violence and abuse: international perspectives and experiences. In J. Bailey, A. Flynn, & N. Henry, (Eds.). *The Emerald International Handbook of Technology-Facilitated Violence and Abuse* (pp. 1-17). Emerald Publishing Limited.
- Bourgault, S., Peterman, A., & O'Donnell, M. (2021). *Violence against women and children during COVID-19—one year on and 100 papers in*. Washington DC: Center for Global Development.
- Cilliers, L. (2021). Perceptions and experiences of cyberbullying amongst university students in the Eastern Cape province, South Africa. *The Journal for Transdisciplinary Research in Southern Africa*, 17(1), 1-6
-

-
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). Thousand Oaks: SAGE Publications.
- Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Thousand Oaks: SAGE.
- Dlamini, N. J. (2021). Gender-based violence, twin pandemic to COVID-19. *Critical Sociology*, 47(4/5), 583-590.
- Douglas, H., Harris, B. A., & Dragiewicz, M. (2019). Technology-facilitated domestic and family violence: Women's experiences. *The British Journal of Criminology*, 59(3), 551-570.
- Dunn, S. (2021). Is it violence? Framing technology-facilitated abuse as violence. In J. Bailey, A. Flynn, & N. Henry, (Eds.). *The Emerald International Handbook of Technology-Facilitated Violence and Abuse* (pp. 25-45). Emerald Publishing Limited.
- Eckert, S., & Metzger-Riftkin, J. (2020). Doxxing, privacy and gendered harassment. The shock and normalisation of surveillance cultures. *M&K Medien & Kommunikationswissenschaft*, 68(3), 273-287.
- Gomes, S., Sardá, T., & Granja, R. (2022). Crime, Justiça e Média: Debates Sobre Representações Mediáticas e Desafios Atuais. *Comunicação e Sociedade*, 42, 7-24.
- Gosse, C. (2021). "Not the real world": Exploring experiences of online abuse, digital dualism, and ontological labour. In J. Bailey, A. Flynn, & N. Henry, (Eds.). *The Emerald International Handbook of Technology-Facilitated Violence and Abuse* (pp. 46-64). Emerald Publishing Limited.
- Hendricks, E. A. (2022). Sexual harassment of female students in selected South African universities. *African Journal of Gender, Society & Development*, 11(1), 159.
- Henry, N., Flynn, A., & Powell, A. (2021). Technology-facilitated domestic and family violence: new knowledge and implications for practice. *Current Issues in Criminal Justice*, 33(2), 146-163.
- Henry, N., & Powell, A. (2015). Beyond the 'sext': Technology-facilitated sexual violence and harassment against adult women. *Australian & New Zealand Journal of Criminology*, 48(1), 104-118.
- Jones, S., & Mitchell, K. J. (2020). Technology-based sexual coercion and abuse: A systematic review. *Trauma, Violence & Abuse*, 21(2), 233-247.
- Kriel, C. (2021). Guidelines for the development of a policy framework for ethics in teaching practice (Doctoral dissertation). Cape Peninsula University of Technology: Bloemfontein.
- Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. New York: The Guilford Press.
- Machisa, M. T., Chirwa, E. D., Mahlangu, P., Sikweyiya, Y., Nunze, N., Dartnall E, P. M., & Jewkes, R. (2021). Factors associated with female students' past year experience of sexual
-

-
- violence in South African public higher education settings: A cross-sectional study. *PLoS One*, 16(12), e0260886.
- Mahlangu, P., Machisa, M., Sikweyiya, Y., Nunze, N., Dartnall, E., Pillay, M., & Jewkes, R. (2022). Preliminary evidence of promise of a sexual violence risk reduction intervention for female students in South African tertiary education institutions. *Global Public Health*, 17(11), 2720-2736.
- Makinde, O. A., Olamijuwon, E., Ichegbo, N. K., Onyemelukwe, C., & Ilesanmi, M. G. (2021). The nature of technology-facilitated violence and abuse among young adults in Sub-Saharan Africa. In J. Bailey, A. Flynn, & N. Henry, (Eds.). *The Emerald International Handbook of Technology-Facilitated Violence and Abuse* (pp. 83-101). Emerald Publishing Limited.
- Marganski, A. J., Melander, L. A., & DeKeseredy, W. S. (2022). Single, repeat, and poly intimate partner violence victimisation among women at a college campus: Extending research through the inclusion of technology-facilitated violence and examining key social determinants for intimate partner violence prevention. *Violence Against Women*, 28(12/13), 3013-3036.
- McMahon, R., Bressler, M. S., & Bressler, L. (2016). The new global cybercrime calls for high-tech cyber-cops. *Journal of Legal, Ethical & Regulatory Issues*, 19(1), 26-37.
- Mukhija, N. (2020). The role of technology in facilitating gender-based violence in India. *Journal of International Women's Studies*, 21(10), 89-102.
- Nduna, M., & Tshona, S. O. (2021). Domesticated poly-violence against women during the 2020 COVID-19 lockdown in South Africa. *Psychological Studies*, 66(3), 347-353.
- Pillay, R., & Sacks, G. (2020). Cyberbullying — a shrouded crime: Experiences of South African undergraduate students. *The Oriental Anthropologist*, 20(2), 370-386.
- Posetti, J., Shabbir, N., Maynard, D., Bontcheva, K., & Aboulez, N. (2021). *The chilling: Global trends in online violence against women journalists*. New York: United Nations International Children's Emergency Fund.
- Powell, A., & Henry, N. (2017). *Sexual Violence in a Digital Age*. Palgrave Macmillan.
- Saldana, J. (2014). Coding and analysis strategies. In P. Leavy, (Ed.). *The Oxford Handbook of Qualitative Research* (pp. 581–605). New York: Oxford University Press.
- Schenk, A. M., & Fremouw, W. J. (2012). Prevalence, psychological impact, and coping of cyberbullying victims among college students. *Journal of School Violence*, 11(1), 21-37.
- Silva, T., Nogueira, C., & Rodrigues, L. (2021). Intimate abuse through technology: A systematic review of scientific constructs and behavioural dimensions. *Computers in Human Behaviour*, 122(3), 106861.
- Thulin, E. J., Heinze, J. E., Kernsmith, P., Smith-Darden, J., & Fleming, P. J. (2021). Adolescent risk of dating violence and electronic dating abuse: *A latent class analysis*. *Journal of Youth & Adolescence*, 50, 2472–2486.
-

Ullah, A., Xiao, H., & Barker, T. (2016). *A classification of threats to remote online examinations*. In 2016 IEEE 7th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON) (pp. 1-7). IEEE.

Yin, R. K. (2018). *Case Study Research and Applications, Design and Methods* (6th ed.). Thousand Oaks: SAGE.

SSIRC 2023-123**THE SPATIAL PLANNING ATTRIBUTES IN SOUTH AFRICAN URBAN AREAS: SPATIAL JUSTICE AND THE COMPLEXITIES OF FORCEFUL LAND EVICTIONS****K Rachekhu**

University of Limpopo, South Africa

N.J Mokoale

University of Limpopo, South Africa

K.A Mashamaite

University of Limpopo, South Africa

ABSTRACT

Most black people are in townships, outside of the city centre in a maze of slums and informal settlements, due to the structure of most South African cities, which is ingrained in colonial spatial planning practices. Over 50% of black people are now trapped in informal settlements due to the legacy of colonial spatial design, exacerbated by the local government's inability to create sustainable communities in South African urban areas. The purpose of the paper is to explore how South African cities' existing spatial planning practices are discriminatory, fuelling the marginalisation of most impoverished black people in unregistered residential areas. This paper employed the qualitative approach to gather secondary data through academic journals, books, and conference papers relating to spatial justice and forceful land evictions in South African urban areas. Based on the findings, the unfortunate reality points out that evictions happen in urban areas across South Africa daily. The previously disadvantaged black, coloureds, and Indian populations experienced difficulties in accessing suitable residential areas that are registered due to deficiencies in the land tenure system and land disputes for development, which contributes to forcible land evictions. The paper recommends the inclusion of the Spatial Land Use Management Act (SPLUMA) Act 16 of 2013 in municipal planning. This Act is inclusive of the idea of spatial justice, which has the potential to lessen the burden associated with obtaining access to legal residential areas of choice through adequate documentation. The paper supports the application of spatial justice in the crisis of forceful land evictions, which should consist of land development procedures aimed to provide secure land tenure and foster incremental upgrading of informal areas.

KEYWORDS: Spatial Planning, Spatial Justice, Land Evictions, SPLUMA, Land Tenure, Municipality

1. INTRODUCTION

Spatial planning in South Africa has undergone a transition because of the changing environment, economic circumstances, legislative frameworks, and governance (Chigudu, 2019). The geographical and spatial fragmentation of South African cities can be traced back to the apartheid government of 1948 and the preceding colonial era (Chakwizira, *et al.*, 2018). According to Rachekhu, *et al.*, (2022), a multitude of political, socio-economic, and legal factors such as political affiliation, ethnic group, employment status and social class influenced South Africa's spatial planning during apartheid. This contributed to the existing spatial injustice and exclusion of urban settlements on the outskirts of urban areas. During the colonial and apartheid era in South Africa, legislations such as the Native Land Act 1913, Native (Urban) Areas Act 1923, Group Areas Act 1950, and the Bantu Urban Areas Act 1953 were enacted to keep interracial property transactions and land occupation separated and controlled within the country (Breetzke, *et al.*, 2021; Newton & Schuermans, 2013).

Municipalities substantially failed to overcome historical exclusions and divisions as reinforced by the apartheid spatial dispossessions (Phuhlisani, 2017; David, Leibbrandt & Shifa, 2018; Turok, 2018). The socio-spatial division is deepening, with poor, black families having no voice to engage authorities in respect of their most basic needs (South African Cities Network, 2016). Furthermore, there is a visible weak social interaction, lack of solidarity, conflict, mistrust, marginalisation, lack recognition and acceptance between black and white communities, even though they inhabit the same locations (Kiguwa & Langa, 2015). Henceforth, two decades into democracy, the spatial arrangements of all South African cities remain fragmented (Monama, *et al.*, 2021). Urbanisation has increased the demand for housing (Doorn, Arnold & Rapoport, 2019). The rapid increase of population in cities means more demand for spatial distribution, whereas the available space in cities is not enough to cater for the existing population (Monama, *et al.*, 2022). As such, population growth has resulted in squatter camps and informal settlements, which makes it difficult for spatial planners to bring new spatial developments (Monama, *et al.*, 2022; Mohanty, 2019).

The dawn of South Africa's democracy coupled with the rigidity and discriminatory nature of colonial planning has resulted in an unprecedented rate of urbanisation, exacerbating the demand for housing in cities (Mokgotho & Mokoele, 2020). Much of the city's spatial setup of slums, ghettos and informal settlements were created according to the colonial and apartheid administration. Urbanities constantly face temporary removals, against the wills of individuals, families and/or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other forms of protection (Kimeu & Maina, 2018). Forced evictions violate several internationally and nationally recognised human rights. This translates into a denial of the right to adequate housing, which forms the basis for the realisation of other rights, affecting people's social and economic livelihoods (Kimeu & Maina, 2018). The purpose of this paper is to explore how South African cities' spatial planning practices are discriminatory and maintain the marginalisation of the majority of impoverished black people through forceful land evictions. It also attempts to provide relief through the application of the principle of spatial justice.

2. LITERATURE REVIEW

2.1. Spatial Planning Attributes in South African Urban Areas

Spatial planning functions as a means towards improved settlement patterns through the allocation and distribution of appropriate spatial economic attributes that support diverse human activities (Schoeman, 2015). The apartheid administration in South Africa encouraged the mass displacement of black people to underdeveloped townships and rural areas using the Native Land Act of no 27 of 1913 and Bantu Urban Areas Act no 47 of 1953 as a guideline. This sparked the country's current socioeconomic problems with landlessness, poverty, and inequality (Department of Rural Development, 2013). The South African Human Rights Commission (SAHRC) (2018) highlights that apart from land dispossession, black people in South Africa were subjected to systemic deprivation and discrimination in their access to socio-economic needs such as water, healthcare, food, housing, social security and education because of apartheid policies.

As such, the colonial spatial planning practices have impacted black settlement patterns adversely (Rachekhu, *et al.*, 2022). The fragmented settlement patterns continue to reflect the imbalances of social power and spatial inequalities in contemporary South African urban areas (Strauss, 2019). A multitude of political, socio-economic, and legal factors such as political affiliation, ethnic group, employment status and social class influenced South Africa's spatial planning during the apartheid regime. This led to urban residential segregation representing significant dimensions in the historical development of the settlement patterns of South Africa's urban poor (Rachekhu, *et al.*, 2022; Strauss, 2019; Phuhlisani, 2017). The magnitude of the impacts of the spatial inequalities are noticeable through the prevalence of urban settlements without land tenure, which are usually referred to as informal or squatter settlements (Isandla Institute, 2016). The colonial spatial planning mechanisms contributed to the existing spatial injustice and exclusion between urban settlements on the outskirts of urban areas about accessibility and convenience towards various activities such as employment opportunities, shopping centres, educational institutions, and government facilities (Chigudu, 2019).

Concurrently, stakeholders such as spatial planners, development professionals, and policymakers are now desperate to address the spatial fragmentation that was brought about by apartheid because of South Africa's democratic transition (Monama, *et al.*, 2022). To address fragmentation, marginalisation, eviction, insufficient housing, and tenure instability, the democratic government created new spatial development planning regulations in 1994 (Schensul & Heller, 2011; McGranahan, *et al.*, 2016). The democratic new spatial development planning regulations include the 1994 Constitution of the Republic of South Africa, the National Development Plan, the 2012 (NDP) Vision 2030, the Spatial Planning and Land Use Management Act (SPLUMA) 16 of 2013, the Spatial Development Framework, and the Integrated Urban Development Framework (IUDF), (2016). The overall goal of post 1994 democratic spatial development planning regulations is to redress the past spatial injustices affecting the non-white population, ensuring that all persons have equal access to spatial resources (Harrison & Todes, 2016; Monama, *et al.*, 2022).

2.2. The Application of Spatial Justice on the Forceful Land Evictions Crises

Soederberg (2018) highlights that evictions are becoming a global phenomenon which involves the use of brutal force and the loss of (informal) property, shelter, livelihoods, and community. Along with the growing number of evictions, political anxiety and acts of resistance are growing (Bhan, 2014; Brickel, *et al.*, 2017). However, attention to spatial justice is lacking in the burgeoning evictions jurisprudence on Chapter 2, Section 26 of the Constitution. This is even though the eviction and relocation of impoverished communities, from densely occupied informal settlements or inner-city properties to ill-located peripheral areas, remains a patent cause of spatial displacement (Strauss & Liebenberg, 2013). Evictions deepen vulnerability by disrupting fragile community networks, removing people far from livelihood opportunities and interfering with existing arrangements for childcare and education (Strauss & Liebenberg, 2013). The Isandla Institute (2016) stipulates that land pressures necessitate the provision of land tenure to forge a relationship between the people and the land by giving them the right to occupy certain spaces as well as to shield them from unlawful evictions.

Henceforth, the emergence of spatial justice as a key element in relation to housing rights has revealed itself as a developmental principle to ease forceful evictions (Fainstein, 2009; Van Wyk, 2015; Adegeye, 2018). It can be deduced from SPLUMA Act 16 of 2013 that the characteristics of the spatial justice principle can be reduced to readdressing past spatial imbalances and exclusions, including people and areas previously excluded, providing tenure security, and upgrading informal areas and settlements. It is critical to note that spatial justice in democratic South Africa is supported by the Constitution of the Republic of South Africa in Chapter 2, Section 26 where access to land is explicitly stipulated (Van Wyk, 2015). The Constitution recognises the right to adequate housing as an important basic human right, where section 26 provides that (i) everyone has a right to have access to adequate housing, (ii) the State must take reasonable legislative and other measures within its available resources to achieve the progressive realisation of this right, and (iii) no one may be evicted from their home or have their home demolished without an order of court made after considering all the relevant circumstances, and that no legislation may permit arbitrary evictions. Therefore, in accordance with the constitutional vision, which seeks to redress the injustices of the past, especially for indigenous black people, mostly those who suffered under the daily, soul-destroying, indignities of apartheid (South African Human Rights Commission, 2018).

3. THEORETICAL FRAMEWORK: LAND RIGHTS THEORY

The land rights theory is suggested by UN-Habitat (2008) to guide thinking and action on the supply of land rights and land tenure for several years. The evolutionary theory of land rights is the predominant framework of analysis used by mainstream economics to analyse the state of land tenure in emerging countries and predict how it will change over time (Zhang, 2021; Platteau, 1997). Land rights constantly respond to increased individualisation due to the combined effects of market integration and rising population pressure. According to this idea, this movement prompts rights holders to urge for the creation of duly recognised private property rights (UN-Habitat, 2008). The basic idea behind the notion is to give the urbanising masses access to land,

together with the possibility of property investment (Kihato & Royston, 2013; Gordon, 2008). According to Whittal (2014), the essential determinants of land tenure security are legitimacy, legality, and complexity.

This paper is based on the land rights theory because three of the expected outcomes of titling are fundamental to the enforcement of land rights. These are the delineation of actual property borders, the accessibility of greater data on property issues due to the recording of cadastral data and property rights, and the construction of an organisation that ensures the enforcement of those props (Hailu, *et al.*, 2015). According to Whittal (2014), the theory can aid in comprehending new or hybrid tenure arrangements and carefully constructs inventive land rights tools. Principles of land rights theory, such as legitimacy, legality and complexity stipulated by Hull; Babalola and Whittal (2019) and Whittal (2014), were included in the study to achieve the study's goal and objective of fostering land tenure security, which may contribute to successful spatial justice.

4. METHODOLOGY

This study used a conceptual research design entailing a thorough examination of secondary data. Conceptual research is qualitative in nature and involves analysing and evaluating information that has been gathered on a particular subject (Tenny, *et al.*, 2022). Jaakkola (2020) claims that it specifies the tasks necessary for the research study based on information gleaned from related research and other academics' viewpoints on the subject. According to Regoniel (2015), a conceptual framework is the authors' synthesis of the available literature, which they use to explain a phenomenon. In this respect, conceptual papers are not devoid of empirical insights; rather, they are based on ideas and concepts that have been validated and assessed through empirical research.

In terms of methodology, the piece starts with the authors' collaborative conception of the study's title. The authors chose a topic under development investigations because of their expertise in this field of study. The authors gathered data through a survey of existing literature, in which peer-reviewed academic publications, books, government laws, and online sources were used to compile the data for this article (Sundani & Mamokhere, 2021). As a result, the authors of this article examined secondary evidence to back up their claims. The data collection focused on forceful evictions in urban townships, as well as spatial justice as an executing solution to the spatial dilemma in South African municipalities.

In this regard, the article employed the Critical Discourse Analysis (CDA) method to analyse documents or secondary data. According to CDA, a qualitative analytical technique, CDA examines, interprets, and explains how discourses create, maintain, and justify social inequalities (Mullet, 2018). In contrast to quantitative research, which focuses on data, the CDA technique is most utilised in qualitative research. The available literature on forceful evictions, spatial planning and spatial justice was examined and synthesised.

5. RESULTS AND DISCUSSION

This section presents the results and discussion of the study. Results of the forceful land evictions from South African urban areas encapsulating the causes and effects of forceful land evictions are discussed.

5.1. Forceful Land Evictions in South African Urban Areas

An eviction is the act of depriving a person of occupation of a building or structure or the land on which such a building or structure is erected, against their will (South African Human Rights Commission, 2015). A building or structure includes any hut, shack, tent, or similar structure or any other form of temporary or permanent dwelling or shelter. The forceful nature of these evictions, coupled with corruption has positioned them as the cross-section between land rights, corruption, and human rights (Kimeu & Maina, 2018).

5.2. Factors Leading to Forceful Land Evictions

The preceding section provides a discussion of the factors that contribute to forceful evictions in South African urban areas. It was deduced from literature that the absence of land tenure, formation of informal and unregistered settlements and the pressures for population expansion substantially contribute to the proliferation of forceful land evictions.

- ***Absence of Land Tenure***

According to Kimeu and Maina (2018), forced evictions are often linked to the absence of legally secure tenure, which constitutes an essential element of the right to adequate housing. The dilemma of a land tenure's absence is usually caused by varying factors, including capitalism, spatial distortions of apartheid, land reforms and illegal land occupations, causing lack of and tenure in the South African context (Kloppers & Pienaar, 2014; Phuhlisani, 2017; Advisory Panel on Land Reform and Agriculture, 2019; Andrew, 2020). Additionally, poor spatial planning efforts, according to Rachekhu, *et al.*, 2022, may influence spatial difficulties experienced in South Africa. These difficulties include fragmented land-use plans and unsecure communities lacking necessary infrastructure and critical services. Thus, the lack of land tenure stability exacerbates the failure to establish spatial fairness bringing about scrimmage in the attainment of the principle of spatial justice.

- ***Formation of Informal and Unregistered Settlements***

According to Nassar and Elsayed (2018), informal settlements and urban informality is a serious and common problem in Third World countries. In South Africa, most of the black population is still located at the periphery, characterised by unsuitable and informal land rights, services and housing condition (Van Wyk, 2015). Informal settlements refer to a wide range of residential areas made up of communities housed in self-constructed shelters that are perceived as informal based on their legal status, their physical conditions or both (United Nations Habitat, 2015). The settlements have been developed on lands that are not assigned in the city's master plan for building housing (Nassar & Elsayed, 2018). The buildings' conditions might be good; however, they might be environmentally or socially unsafe and lack basic services and utilities (Abdelhalim, 2010). Nassar and Elsayed (2018) postulate that the development of informal settlements is fuelled by the absence of an adequate formal response to the growth of housing demands. As such, informal settlements are the logical response.

- ***Pressures for Urban Expansion***

The spatial failures can be deduced to the continuing pressures of urban expansion competing with agricultural enterprises, new residential settlements and with recreational demands to cater for a growing population due to urbanisation and a high birth rate (Greater Letaba Municipality: IDP, 2020/2021). Land is constantly under strain for a variety of causes, including significant commercial interests, changing climate conditions, and changing demographic patterns such as mass migration and increased population density (Kouba, *et al.*, 2020). Most community development initiatives such as shopping centres, schools and hospitals requiring space become impossible to foster because of squabbles over land between community members, the state, and elites. As such, the increased acquisition of land by outside private investors, companies, governments, and national elites from individuals and/or local communities, equates to forcefully robbing them off their access to land (Sauti & Lo Thiam, 2018). Therefore, the deficiencies in land rights result in strife, instability, leadership conflicts, and prejudice, but through the land tenure system it makes room for secure land rights and ownership (Chaman Law Firm, 2020). The poorest people suffer the most because of spatial inequity, forcing them to leave their homes as a response to eviction notices.

5.3. The Effects of Forceful Evictions in South African Urban Areas

This section provides a discussion of the effects of forceful land evictions in South African urban areas. Findings from literature indicate that involuntary Arbitrary Displacement, including Population Transfer and Violation of Basic Human Rights consequently arise because of forceful land evictions.

- ***Involuntary Arbitrary Displacement, Including Population Transfer***

Arbitrary displacement is understood as unlawful displacement that contravenes either national law or international law and standards, including forced eviction area-based response or programmes (United Nation-Habitat, 2008). Nayak (2019) stipulates that involuntary displacement caused by development projects has become a great concern in the present era of the free market economy across the globe. The involuntary displacement caused by such projects involves dams, reservoirs, irrigation, roads, highway, canals, mining, power plants, oil exploration and extraction, pipelines, agricultural expansion, parks and expansion of reserve forests, and population redistribution schemes (Internal Displaced Monitoring Centre, 2019). Although development projects bring certain benefits to the society at large, their construction too leads to many significant social and human impacts, particularly in terms of displacement leading to a broad range of ‘impoverishment risks’ that includes landlessness, homelessness, marginalisation, increased morbidity, loss of common resources, and social disarticulation, resulting in a loss of socio-cultural resilience (Carena, 2000: 3659–3678). As a result of forced evictions, people are often left homeless and destitute without means of earning a livelihood and, in practice, with no effective access to legal redress or other remedies (Kimeu & Maina, 2018).

- ***Violation of Basic Human Rights***

According to Kimeu and Maina (2018), forced evictions intensify inequality, social conflict, segregation and invariably affect the poorest, socially, and economically vulnerable. In marginalised sectors of society, this pertains especially to women, children, minorities, and indigenous people. As a result, their uses of land, which include sustaining their livelihoods, are threatened, creating both social and environmental problems, since they deprive communities of land (Kasimbazi, 2017). Kimeu and Maina (2018) concur that forced evictions in the broader sense constitute gross violations of a range of internationally recognised human rights, including the human rights to adequate housing, food, water, health, education, work, security of the person, freedom from cruel, inhuman, and degrading treatment and freedom of movement. Human rights are fundamental and thus should not be derogated from; however, corruption has led to derogation from these delineable human rights as we continue to witness forced evictions that displace people from their land, shelter, and other entitlements.

6. RECOMMENDATIONS AND CONCLUSION

A crucial concern is obtaining full rights and protection to a piece of property for a lifetime, free from external constrictions or intervention. To ease this concern, the following recommendations are made:

- ***Incremental Upgrading and Housing Consolidation of Informal Settlements***

The concept of housing delivery is rooted in the broader notion of ‘self-help’, which assumes that residents of informal settlements are willing and able to gradually expand their initial basic dwellings into adequate homes over time (Mathabela, 1999). As such, land tenure is vital to the process of upgrading informal settlements because giving residents the ability to perform land-related transactions creates an environment where the fear of eviction and loss of rights no longer exists (Urban LandMark, 2013). Although, it is important to note that insecurities of tenure undermine the willingness of residents to invest in improving their homes and their urban environment, in fear of possible eviction and/or demolition (Wakely & Riley, 2011).

As such, incrementalism presupposes collaborative planning and design to avoid relocation, foster adaptability/flexibility, enable tenure security, and endorse environmentally responsive design (Dovey, 2014). As such, incrementalism addresses both spatial and socio-economic disparities throughout South African cities. It involves surveying the community to determine housing and infrastructural needs through a process of consultation and meaningful engagement to determine the geo-technical and physical suitability for upgrading. Furthermore, the process of incremental upgrading is focused on detailed planning and project management, securing tenure/occupational rights, the provision of permanent basic services and bulk infrastructure and providing relocation assistance, if need be.

- ***Run a Programme of Issuing Out Title Deeds***

The provision of tenure security to the urban poor in South Africa has been dominated by the individual title model implemented through large-scale titling programmes. However, recently alternative models of tenure security are being employed, focusing on incremental progression by

providing a context specific, as well as a realistic, progression towards tenure security. This in turn has led to ad hoc, reactive crisis management-based decision-making (Massey, 2013) with regards to informal settlements. According to the World Bank (2021), the programme will include investing in modernising land administration by making services faster, digitising procedures and by using technology to record and maintain land information. Furthermore, it will improve authorities' capacity to sustain land registration and administration services over the long term and protect land records from any disaster (World Bank, 2021).

In conclusion, it can be deduced from the study that amid pieces of legislature, cases of forceful land evictions persist. This trend is attributed to political influence, land reforms, capitalism, insufficient land for settlement land use, and illegal occupation of land parcels. The persistence of these issues overwhelms the municipal capacity to tailor its local responses to the evictions, and thus inhibits spatial planning and development of townships. Consequently, local municipalities do not contribute significantly towards the housing needs of the population. Hence, the proliferation of informal settlements. This study, therefore, recommends fostering incremental upgrading of informal settlements, housing consolidation, and a programme of issuing out title deeds. The adoption of these strategies can potentially result in spatial equitability and sustainable settlements where human rights are fundamental.

REFERENCES

- Abdelhalim, K. (2010). Participatory upgrading of informal areas a decision-makers guide for action, participatory development programme in urban areas. *Egypt*, 1216.
- Adegeye, A., and Coetzee, J. (2018). Exploring the fragments of spatial justice and its relevance for the global south.
- Babalola, K.H., and Hull, S.A. (2019). Examining the Land Use Act of 1978 and Its effects on tenure security in Nigeria: A case study of Ekiti State Nigeria. *PER / PELJ*, 22.
- Bhan, G. (2014). *The impoverishment of poverty: reflections on urban citizenship and inequality in contemporary Delhi*. *Environment and Urbanization*, 26 (2), 547–560.
- Breetzke, G.D., Fabris-Rotelli, I., Modiba, J. and Edelstein, I.S. (2021). The proximity of sexual violence to schools: Evidence from a township in South Africa. *GeoJournal*, 86(2), 765-776.
- Brickell, K, Arrigoitia, M.F., and Vasudevan, A. (2017). *Geographies of forced eviction: dispossession, violence, resistance*. Geographies of Forced Eviction, Palgrave Macmillan, London, 1–23.
- Chakwizira, J., Bikam, P. and Adeboyejo, T.A. (2018) Different strokes for different folks: Access and transport constraints for public transport commuters in Gauteng province, South Africa. International Journal for Traffic and Transport Engineering, 8(1), 58-81.
- Chaman Law Firm. (2020). *Land Tenure System in Nigeria: Land Law in Nigeria*.
- Chigudu, A. (2019). Institutional frameworks for urban development in zimbabwe and zambia: change and communities. *Journal of Public Administration and Development Alternatives*, 4 (2), 1-7.
- Department of Rural Development and Land Reform. (2013). *Land Audit*.

-
- Dewar, D. (1993). Low-income housing policy in South Africa. *Urban Problems Research Unit: University of Cape Town*, 1- 255.
- Dovey, K. (2014). Incremental urbanism: the emergence of informal settlements. in t. haas and k. olsson, ed., *emergent urbanism: urban planning and design in times of structural and systemic change*, 1st ed. New York: Routledge, 45-55.
- Greater Letaba Municipality. (2020/2021) *Integrated Development Plan*.
- Hailu Z., Nkote, I.N., and Munene, J.C. (2015). Property rights and investment: the mediating effect of contract enforcement. *Property Rights and Investment*, 21.
- Harrison, P. & Todes, A. (2015). Spatial transformations in a “loosening state”: South Africa in a comparative perspective. *Geoforum*, 61, 148-162.
- Hirschheim, R. (2008). Some guidelines for the critical reviewing of conceptual papers. *Journal of the Association for Information Systems*, 9 (8), 432–441.
- Hull, S., Babalola, K., and Whittal, J. (2019). Theories of land reform and their impact on land reform success in southern Africa. *Land*, 8 (11), 172.
- Isandla Institute. (2016). Towards incremental informal settlement upgrading supporting municipalities in identifying contextually appropriate options.
- Jaakkola, E. (2020). Designing conceptual articles: four approaches. *AMS Review*, 10 (1-2), 18–26.
- Kasimbazi, E. (2017). Land tenure and rights: for improved land management and sustainable development.
- Kihato, C.W. and Royston, L. (2013). Rethinking emerging land markets in rapidly growing southern african cities. *Urban Forum*, 24(1),1–9.
- Kimeu, S.M, and Maina, B.W. (2018). Forceful evictions: An intersection between corruption, land and human rights, Case study of the Kenyan perspective. *African Journal of Land policy and Geospatial Sciences*.
- Kouba A., Seigneret, A., Beauchamp, E., and Schwartz, B. (2020). Securing land rights in Cameroon: what hasn’t worked and what should be done. *International Institute for Environment and Development*.
- Massey, R. (2013). Informal settlement upgrading and the effect of governmentality on women’s social networks: a case study of new rest and makhaza, cape town. *Doctor of Philosophy. University of Stellenbosch*.
- Mathabela, P. (1999). incremental housing and the role of community participation: A comparative study of Cato Manor and Bhambayi. *Master’s Dissertation from the University of Natal*.
- McGaghie, W. C., Bordage, G., Shea, J. A. (2001). Problem statement, conceptual framework, and research question. *Academic Medicine*, 76 (9), 923–924.
- McGranahan, G., Schensul, D. & Singh, G. (2016). Inclusive urbanization: Can the 2030 Agenda be delivered without it? *Environment and Urbanization*, 28(1), 13-34.
- Mohanty, M. (2019). Squatter settlements and slums and sustainable development. *Sustainable cities and communities*,1-12.
- Mokgotho, K.D. & Mokoale, N.J. (2020). The efficacy of municipal spatial plans implementation towards mitigating climate change: South African institutional challenges. In M.P. Sebola,
-

Revalising Public Administration, Development and Economic Growth. The 5th annual International Conference on Public Administration and Development Alternatives (IPADA), Virtual Conference. 7-9 October 2020.

Mokoele, N.J and Mokgotho, K.D. (2022). Examining the embeddedness of climate change mitigation in the multilevel governance system: The case of Polokwane Local Municipality, South Africa. *Journal of Public Administration*, 57 (1).

Monama S. A., Mokoele N. J., and Mokgotho K. D. (2022). South African spatial planning fragmentation: repealing the apartheid planning imprint. *International Journal of Entrepreneurship*, 26 (1), 1-11.

Mullet, D. R. (2018). A General Critical Discourse Analysis Framework for Educational Research. *Journal of Advanced Academics*, 29 (2), 116–142.

Nassar, D.M., and Elsayed, H.G. (2018). From informal settlements to sustainable communities. *Alexandria Engineering Journal*, 57, 2367-2376.

Nayak, A.K. (2019). Involuntary Displacement and Human Security: A Study of the Kaptai Dam in Bangladesh. *Jadavpur Journal of International Relations*, 23(2), 199-231.

Newton, C., and Schuermans, N. (2013). More than twenty years after the repeal of the Group Areas Act: Housing, spatial planning and urban development in post-apartheid South Africa. *Journal of Housing and the Built Environment*, 28, 579–587

Phuhlisani, N.P.C. (2017). The role of land tenure and governance in reproducing and transforming spatial inequality. *Commissioned report for High Level Panel on the assessment of key legislation and the acceleration of fundamental change, an initiative of the Parliament of South Africa*,

Rachekhu, K., Mokoele, N.J, and Mokgotho, K.D. (2022). Spatial economic attributes in South African urban areas: complexities of transforming cities towards a pro-poor. *European Journal of Economics, Law and Social Sciences*, 6 (1).

Ramuhilu, T.C. (2021). The prospects and challenges of rural-urban migration in south african cities: perceptions from integrated development plans’, *master’s dissertation in the university of Kwazulu-Natal*.

Regoniel, P. A. (2015). Conceptual framework: A step by step guide on how to make one. Simply Educate.

Sauti, G., and Lo Thiam, M. (2018). The land-grabbing debacle: an analysis of South Africa and Senegal. *Africanus: Journal of Development Studies*.

Schensul, D. & Heller, P. (2011). Legacies change and transformation in the post? apartheid city: towards an urban sociological cartography. *International Journal of Urban and Regional Research*, 35(1), 78-109.

Schoeman, C. (2015). The alignment between spatial planning, transportation planning and environmental planning within the new spatial systems in South Africa. *Town and Regional Planning*, 67, 42-57.

Soederberg, S. (2018). Evictions: a global capitalist phenomenon. *Development and Change*, 49 (2), 286–301.

South African Human Rights Commission. (2018). *Report on the High-Level Public Inquiry on the Impact of Rural Land-use and Ownership Patterns on Human Rights*.

-
- Strauss, M. (2019). A historical exposition of spatial injustice and segregated urban settlement in South Africa.
- Strauss, M., and Liebenberg, S. (2013). Spatial Justice in South African Evictions Jurisprudence.
- Sundani, N. D., Mamokhere, J. (2021). The impact of student-lecturer relationship on good decision-making and quality promotion in the institutions of higher education and training. *African Perspectives of Research in Teaching & Learning*, 5 (2), 136–147.
- Tacoli, C., McGranahan, G., and Satterthwaite, D. (2015). *Urbanisation, rural–urban migration and urban poverty*. IIED, London. <http://pubs.iied.org/10725IIED>
- The Constitution of the Republic of South Africa. (1994).
- The South African Human Rights Commission. (2015). *Investigative Hearing Report on Access to Housing, Local Governance and Service Delivery*.
- The world bank. (2021). *World Bank to Support Land Administration, Titling in Lao PDR*.
- United Nations Habitat. (2003). *The challenge of slums global report on human settlements*.
- United Nations- Habitat. (2008). *Securing land rights for all in Nairobi*.
- United Nations-Habitat. (2015). *Housing & slum upgrading*.
- Urban LandMark. (2008). Development of the urban development component for a second economy strategy: overview analysis. second economy strategy: addressing inequality and economic marginalisation. *Urban LandMark*, 1-38
- Van Doorn, L., Arnold, A., and Rapoport, E. (2019). In the Age of Cities: The impact of urbanisation on house prices and affordability. *Hot Property*, 3-13.
- Wakely, P. and Riley, E. (2011). The case for incremental housing. *Cities Alliance Policy Research and Working Papers Series No. 1. Washington: Cities Alliance*, 1-48
- Whittal, J. (2014). A new conceptual model for the continuum of land rights. *South African Journal of Geomatics*, 3 (1).
- Wong, L. P. (2008). Data analysis in qualitative research: A brief guide to using NVivo. *Journal of the Academy of Family Physicians of Malaysia*, 3 (1), 14–20.
- World Bank. (2020). *implementation completion and results report for the second land administration project ii. urban, resilience and land global practice*. Latin America Region. Washington, DC.

SSIRC 2023-124**THE UNCONSTITUTIONALITY OF THE DIVORCE COURT'S DISCRETION TO TRANSFER ASSETS AS PER THE DIVORCE ACT****R. Prinsloo**

Vaal University of Technology, South Africa

ABSTRACT

On 11 May 2022, the Pretoria High Court ruled in the case of *Greyling v The Minister of Home Affairs and others* that the wording of a particular section of South Africa's Divorce Act is unconstitutional; paving the way for serious changes in how divorces may be dealt with in future, when spouses are married out community of property in South Africa, without the accrual. The Constitutional Court, however, still needs to confirm whether the judgement was correct. The crucial aspect dealt with in this case was that the Divorce Act does not allow court to make any order regarding 'redistribution of assets' for spouses married out of community of property, without accrual after 1984, and this, the applicant contended, was unconstitutional. The primary aim of this research is to collate, organise and describe legislation and offer commentary on the emergence and significance of the authoritative legal sources in which such rules are considered; particularly referring to case law to identify underlying issues. Spouses who contracted with the accrual system, had an additional right, namely, to exclude assets, and that was not taken into consideration. However, in practice, the biggest problem that women face is that husbands frequently exclude important assets from the accrual, such as companies and trusts or anything acquired from them, even in cases where the parties contracted with the accrual system. This is a particularly challenging situation for women to navigate. In this manner, despite the wife having the legal right to use the accrual system, everything would be excluded, and as a result, she would receive absolutely nothing. Women who have married out of the community of property after 1984, with the inclusion of the accrual system, and where the husband may have excluded various assets, are treated unfairly by this judgment. In addition, the judge did not consider a significant factor, which is the question of whether the antenuptial agreement allows for any kind of settlements to be made in favour of either one of the spouses. The court has decided that the redistribution section should only apply to marriages that did not involve a community of property and were finalised after 1984. In these cases, the accrual should be disregarded. Given the complexity of the issues and the research that is needed, courts are not better placed to deal with the extension of the application of the redistribution remedy. This requires legislative intervention, starting with a thorough, balanced investigation of the lived realities of divorced spouses by the South African Law Reform Commission. Should the Constitutional Court wish to entertain this matter, various interest groups should be allowed to participate as *amicus* to ensure that a well-considered judgment is delivered, having regard to the policy and legislative implications of this matter. The judgment has requested that the Constitutional Court modify the statute, but it is highly likely that they will decline to do so, because doing so would discriminate against certain spouses. The problem can be solved by doing away with the accrual system in its entirety and reverting to the redistribution system for marriages that are not based on the concept of community of property.

KEYWORDS: Assets; accrual system; Divorce Act; redistribution; spouses

1. INTRODUCTION

A marriage is a partnership between two people who contribute their respective skills, seek to fulfil each other's needs, and are entitled to expect emotional and financial security (Brake, 2009). Traditionally, the wife forfeited her career and exited the labour market or took up employment with family-compatible hours at reduced compensation to run the joint household and take care of the children, but incidences of men fulfilling the traditional role of homemaker while their professional wives pursue their career goals. The main drawback of a marriage without the exclusion of the accrual system is that no matter how long the marriage has survived and how much the poor party has contributed to the other party's economic and financial success, the poor party does not have a right to share in the latter's increases.

On 11 May 2022, the Pretoria High Court ruled in the case of *Greyling v The Minister of Home Affairs and others* (case number 40023/21), in a somewhat controversial judgement, that the wording of section 7(3)(a) of the Divorce Act is unconstitutional, in that a party be allowed to enter a marriage which will not give rise to a patrimonial claim on its termination. Section 7(3)(a) lays out different rules for marriages after the Matrimonial Property Act took effect on 1 November 1984. The *Greyling* case suggests that a redistribution discretion should be available in all marriages out of community of property without the accrual system, irrespective of the dates on which these marriages were concluded. In the judgment, the court took specific issue with the wording, “*entered into before the commencement of the Matrimonial Property Act, 1984*”, stating that its phrasing was inconsistent with the Constitution and consequently invalid. This distinction, according to the Judge, amounted to unfair discrimination, especially for poor people, and limits the operation of section 7(3). As a result of this case and in terms of section 167(5), of the Constitution the Constitutional Court will now have to consider whether the court's order should be confirmed or not.

2. CURRENT LEGISLATIVE FRAMEWORK

2.1 Matrimonial regimes

In South Africa, the primary matrimonial property system has always been, and still is, in community of property. If spouses fail to elect their matrimonial property system before they enter a marriage, the default matrimonial property system applicable to their marriage is in community of property (Osman, 2020).

2.1.1 The consequences of divorce when married out of community of property without the accrual system, before 1 November 1984

Marriages out of community of property concluded before 1 November 1984 are based on the principle that each spouse has his/her own separate estate. Prior to 1984, spouses either entered ‘in community of property’ or ‘out of community of property’ marriages. The accrual system only came into operation on 1 November 1984. A ‘redistribution of assets’ section was introduced in

the Divorce Act to assist spouses who married out of community of property prior to the enactment of the Matrimonial Property Act 88 of 1984. (Sinclair, 1987). Although this section may only apply to a relatively small number of marriages, it is important to a particularly vulnerable class of women, namely older women who are less likely to find employment upon divorce and who do not qualify for either child support grants (as their children would be older) or state pension (Osman, 2020). This reforming and remedial measure applies to marriages out of community of property entered between whites, coloureds and Asians before 1 November 1984, and to black people married out of community of property in terms of the old Black Administration Act 38 of 1927, prior to the commencement of the Marriage and Matrimonial Property Law Amendment Act 3 of 1988. It was introduced to redress the financial imbalance invariably suffered by the wife on termination of the marriage by divorce (Osman, 2020). In the absence of a divorce settlement agreement between the spouses, they retain their own separate estates and there is no sharing of assets on divorce, unless the court granting the decree of divorce orders a redistribution of assets between the parties in terms of section 7(3) of the Divorce Act. A pension interest forms part of the spouse's estate and will form part of the assets if redistribution is ordered. The parties may also agree to share the pension interest (Osman, 2020).

The court will not grant a redistribution order unless it is satisfied that it is equitable and just to do so. Apart from contributions made by the party concerned, the court will also take into account, among other things, the existing means and obligations of both parties. The Act sets out two requirements that must be met if the court is to consider granting a redistribution order:

- the spouse seeking the order must have contributed directly or indirectly to the maintenance or the increase of the other spouse's estate during the marriage; and
- the court must be satisfied that by reason of such a contribution, it would be equitable and just to make a redistribution order.

Although the law allows either spouse to apply for a redistribution order, in practice, women have largely used this section. In past cases, the courts have:

- specifically considered the historical gender imbalance that made it more difficult for women to access the labour market.
- acknowledged that wives' household duties should not be viewed as of less value than the employment duties of the husband.
- noted that the Act is sufficiently worded to cover any contribution a spouse makes, including the ordinary duties of a wife; and
- found that it is not always necessary for an applicant to show which assets he/she contributed to, but merely to prove that a contribution was made to the other spouse's estate.

The court is thus enjoined to apply discretion, justice, and equity in coming to the assistance of the financially disadvantaged spouse.

2.1.2 The consequences of divorce when married out of community of property without the accrual system, after 1 November 1984

On 1 November 1984, the Matrimonial Property Act, 88 of 1984 enacted. The Act is responsible for the so-called ‘accrual system’, giving spouses the option to exclude or include the accrual system in their property division. According to the accrual system, a person is married if they enter an antenuptial agreement that does not include a community of property or profit and loss. As mentioned before, spouses can exclude the accrual system from their antenuptial agreement; however, if they explicitly choose not to do so, the accrual will be applied. When the accrual is considered, one of the spouses will have the right to a share in the growth of both estates that are involved in the divorce. Since the implementation of the MPA, intending spouses now have the option of selecting one of the following three matrimonial property systems: marriage in community of property; marriage out of community of property, excluding the accrual system; or marriage out of community of property with the accrual system. While it established the accrual system as the default marriage out of community of property, when Parliament passed the MPA, it was also required to introduce a new judicial discretion to redistribute assets in marriages out of community of property entered prior to 1 November 1984.

The judicial discretion was expanded to civil marriages out of community of property carried out in terms of the Transkei Marriage Act 21 of 1978, from commencement of the Recognition of Customary Marriages Act of 2000, when the Transkei Marriage Act was repealed. As a result of the case of *Holomisa v Holomisa* 2019 (2) BCLR 247 (CC) another type of marriage was added in the discretion to redistribute assets under section 7(3)(c) of the Divorce Act. These are marriages “...entered into in terms of any law applicable in a former homeland, without entering into an antenuptial contract or agreement in terms of such law”. The discretion was exercised if it was equitable and just by reason of the fact that the party in whose favour the order was granted, contributed directly or indirectly to the maintenance or increase of the estate of the other party during the subsistence of the marriage, either by the rendering of services, or the saving of expenses which would otherwise have been incurred, on in any other manner.

In the matter of *Gumede v President of the Republic of South Africa* 2009 (3) SA 152 (CC), the Constitutional Court introduced an additional judicial discretion which pertains to customary marriages regardless of the date on which they were concluded and regardless of the matrimonial property system in place: “...every divorce court granting a divorce decree relating to a customary marriage has the power to order how the assets of the customary marriage should be divided between the parties, regard being had to what is just and equitable in relation to the facts of each particular case”.

Finally, in the matter of *President, RSA v Women’s Legal Centre Trust* 2021 (2) SA 381 (SCA), the Supreme Court of Appeal ordered that: “[s]ection 7(3) of the Divorce Act is inconsistent with

sections 9, 10 and 34 of the Constitution insofar as it fails to provide for the redistribution of assets, on the dissolution of a Muslim marriage, when such redistribution would be just”.

Even though the declaration of unconstitutionality was suspended for a period of two years to allow Parliament to adopt legislation to address the constitutional defect, this created yet another category of marriages to which the judicial discretion applied, regardless of the dates of the marriages.

Indeed, there are therefore numerous different rules determining whether the discretion in section 7(3) would be available to a marriage out of community of property, and few bear any relation to the original purpose of the legislature. One may argue that these different rules pertaining to the availability of the discretion can be said to discriminate based on marital status, race and religion (Collier, 2021).

3. GREYLING CASE

3.1 Facts of the case

The couple got married in March 1988, out of community of property, excluding the accrual. During the marriage, Mrs. Greyling (the ‘Applicant’) was a mother of three children. The applicant's husband, who was a farmer at the time of their marriage, was 22 years old when they got married. The applicant was given a one-page antenuptial agreement by the family's lawyer, and she was instructed to sign it. The couple raised their three children on a very large farm in a rural area. Apart from being a good wife and mother who was highly involved in their children’s education, she was also very active in community service. On the other hand, her husband was a successful farmer who received agricultural awards, excelled financially and as a result he was able to acquire other property. The family maintained an extravagant lifestyle, complete with the ownership of high-end vehicles and trips to exotic locations for vacation. However, in 2016, the couple divorced because of abuse that occurred in the relationship. The applicant then contested what she saw to be an unfair position, namely that she would only be able to walk away from her forthcoming divorce with little more than a tiny bequest that she had inherited from her mother and a possible maintenance claim. The applicant submitted that section 7(3)(a) arbitrarily and irrationally differentiated between people married before and after 1 November 1984, being the date on which the MPA commenced, and contended that it was irrational that she would be protected by section 7(3) if she had married four years earlier. The applicant further contended that no legitimate government purpose justified the differentiation that denied persons married out of community of property with the exclusion of the accrual system after 1 November 1984 the potential protection of a just and equitable remedial judicial order. Counsel for the applicant addressed the assumption that the purpose of limiting the benefit of section 7(3)(a) of the Divorce Act to marriages concluded before 1 November 1984, was to give effect to the choice of the parties to get married out of community of property without the accrual system, and that section 7(3)(a) held them to that choice. The wife argued that the restriction on the application of the redistributive remedy disproportionately impacts women. Further, that the restriction amounts to unfair discrimination based on sex, gender, marital status, culture, race and religion, and operates to

predominantly trap women in harmful, and toxic relationships when they lack the financial means to survive outside of the marriage (Osman, 2020).

Neither the husband nor the Minister of Justice and Constitutional Development, who was joined to the proceedings, opposed the application. The Pretoria Attorneys Association was admitted *amicus*.⁷(Osman,2020)

In examining whether the MPA continues to fail women who were married after 1 November 1984, it is also important to assess whether remedies such universal partnerships have failed to achieve that which section 7(3) of the Divorce Act would have achieved had it continued to apply. Just like this provision, which becomes important when the marriage ends, a universal partnership can be established when the relationship terminates. A partnership will be established when parties brought something into the partnership such as money, labour or skill; when the object of the partnership was carried out for the joint benefit of both parties; the parties object was to make a profit; and the partnership was legitimate (*Pezzutto v Dreyer and Others* 1992 (3) SA 379 (A) at 390A-C). In *Khan v Shaik* 2020 (6) SA 375 (SCA) at para 8, it was held that, “[p]lainly, the essence of the concept of a universal partnership is an agreement about joint effort and the pooling of risk and reward. Upon termination of the universal partnership, what follows is an accounting to one another; the poorer partner becomes the richer partner’s creditor”.

In *Butters v Mncora* [2012] 2 All SA 485 (SCA) at para 18(b), the SCA held that “[a] universal partnership of all property does not require an express agreement. Like any other contract it can also come into existence by tacit agreement that is by an agreement derived from the conduct of the parties”. The Constitutional Court will then be able to determine whether the concept of universal partnership can be applied to marriages out of community of property that exclude the accrual system, or this will lead to the untenable amendment of the parties’ antenuptial contract (*DM v MM* (FB) (unreported case no 1226/2018, 26-10-2018) (Opperman J) at para 7-10). Based on *Fink v Fink and Another* 1945 WLD 226 at 228 and *Mühlmann v Mühlmann* 1984 (3) SA 102 (A), there is no reason why universal partnerships should not be applicable to marriages out of community of property where the accrual system is not applicable. The parties will still retain their contractual autonomy, and where it is demonstrated that the financially weaker spouse contributed towards the accumulation of the financially stronger spouse, the former spouse’s rights can be protected using the universal partnership remedy. Perhaps the argument should be the codification of this remedy as opposed to the extension of the application of section 7(3) of the Divorce Act beyond 1 November 1984 (Collier, 2021).

3.2 The Court’s decision

Judge Van Der Schyf held the view that the legislature, in an effort to address the obvious disadvantage suffered by economically disadvantaged parties in marriages out of community of property concluded before the commencement of the MPA, introduced section 7(3)(a), and reasoned that an entirely novel concept was brought into this branch of our law, namely that the Court was given the power under certain circumstances to order

the transfer of assets of the one spouse to the other and that the power enabling a court to make such a redistribution order was a reforming and remedial measure.

The judge referred, *inter alia*, to the case of *Beira v Beira 1987 (1) SA 967 (A) 987G*, where the court clarified that section 7(3) was enacted to redress a deficiency, namely, to enable both spouses to enjoy their rightful shares in the accumulated wealth residing in the one, which their joint endeavours during the subsistence of the marriage had brought them.

The judge rightfully took the view that the Bill of Rights, specifically section 9 of the Constitution, applies to matrimonial property law since marriage is a matter of choice and so too are the proprietary consequences of marriage. The legislature crafted a reforming and remedial measure but limited its application to marriages out of community of property concluded before the MPA commenced. The judge reasoned that since the possibility of granting a redistribution order was created concomitantly with the introduction of the system of accrual sharing, it can arguably be assumed that section 7(3) was intended to be a transitional measure. According to the judge, the legislature arguably did not extend the relief to marriages out of community of property excluding the accrual system, because the MPA provided the option of choosing between a system that includes accrual sharing and a system that excludes accrual sharing. Parties seemingly exercise a deliberate choice when they exclude the accrual system and incorporate that choice in a written antenuptial agreement executed before a notary. The question is whether in this context it can be said that legislative innovation that brought into force section 7(3) of the Divorce Act to address the plight of poor parties who did not have the opportunity to choose a more beneficial marital regime in the form of the accrual system, is irrational (Collier, 2021).

The judge went further and found that it cannot be said that section 7(3)(a) of the Divorce Act differentiates between spouses married out of community of property who were married before the MPA commenced, and spouses married out of community of property with the exclusion of the accrual system after the MPA commenced. The obvious disparity and inequity that ensues when parties who are married out of community of property and where one party contributed to the maintenance or increase of the estate of the other party, file for divorce, moved the legislature to enact section 7(3)(a) of the Divorce Act. By incorporating a cut-off date for the application of section 7(3), poor parties who were married after 1 November 1984 cannot approach a court to make an order that is just and equitable if they meet the remaining jurisdictional requirements of section 7(3).

According to the judge, the constitutional validity of s 7(3)(a) should not solely be considered from the perspective of the parties' position as it was when an antenuptial agreement was concluded, because there could well be a plethora of legitimate reasons as to why parties would agree to conclude a marriage out of community of property with the exclusion of the accrual system, e.g., a proud less-affluent party who is intending to marry the love of his/her life who happens to be wealthy, may wish to demonstrate that the marriage is concluded solely for the reason of love, and not to gain any future patrimonial benefits.

The judge reasoned further that the inequality is caused when, after the conclusion of the marriage, a distortion is caused by the fact that one spouse directly or indirectly contributes to the other's

maintenance or the increase of the other's estate without any *quid pro quo*. In ideal circumstances, where parties commit to each other 'for better and worse, until death do us part', the economic inequality that follows when one spouse contributes to the other's maintenance or estate growth while their own estate decreases or remains stagnant, may not even be noticed. The unity of marriage conceals economic disparity because it is, for the most part, during the subsistence of the marriage of no consequence. However, where it becomes apparent on divorce that one spouse's estate increased because of the other spouse's contribution while the latter spouse's estate decreased, the party who received maintenance from the other or whose estate increased because of a direct or indirect contribution by the other, has received what can be described as an unfair economic advantage based on the marriage.

The judge was of the view that section 7(3)(a) differentiates between parties, solely based on the date of commencement of the MPA; in circumstances where parties could either (i) apply to incorporate the accrual system into their existing marriage property regime and for one or other reason, failed, or refrained from doing so; and (ii) where parties decided to exclude the accrual system. The only difference between these groups, according to the judge, was speculative in that it could be argued that there might be members in the first group who did not know that they could incorporate the accrual system after commencement of the MPA, while a deliberate choice underpinned the position of the second group.

The court further reasoned that section 7(3) is subject to subsections (4), (5) and (6). According to the judge, it was evident from the content of these provisions that any party approaching the court for the relief provided for in section 7(3) must make out a case that it contributed directly or indirectly to the maintenance or increase of the estate of the other party during the subsistence of the marriage. The court was of the view that it would be patently unfair that an economically disadvantaged party who can make out a case for relief in terms of section 7(3), whose contribution is not recognised and who is not adequately compensated by the spouse who benefitted from such contribution, is metaphorically left out in the cold at the mercy of the spouse whose estate increased, without any recourse to the court to address the injustice.

The judge ultimately took the view that section 7(3)(a) allows a court to interfere in a private relationship to avoid injustice and that it would be axiomatic that no injustice could be done if that power was also available to courts relating to marriages out of community of property with the exclusion of the accrual system. The court's section 7(3) discretion is therefore wide in the sense that it is to be exercised in a manner that will bring about a just and equitable outcome in the factual context concerned, but the power to exercise the discretion is circumscribed and limited to the two scenarios prescribed in section 7(4), namely that the party in whose favour the order is granted must have contributed directly or indirectly to the (i) maintenance, or (ii) increase of the estate of the other party, during the subsistence of the marriage (Roux, 2009).

4. CONCLUSION

The judgement raises several concerns and has omitted several serious problems in our law. The only remedy is to abolish the entire accrual system. The judgment concerned has overlooked the

problem that spouses who contracted with the accrual system, had an additional right, namely, to exclude assets, and in practice the biggest problem faced by women in particular, is that even where the parties contracted with the accrual System, the husband would often exclude important assets from the accrual, such as his company and his trusts or anything acquired from them. In this way, although the wife was entitled to apply the accrual system, everything would be excluded and thus she would receive nothing. The judgment discriminates against women who have married out of community of property after 1984, with the inclusion of the accrual system, and where the husband may have excluded various assets. In addition, the judgment has overlooked an essential issue, namely, the question of settlements which may be made in favour of one of the spouses in an antenuptial contract. The judgment has found that the redistribution section should apply only to marriages out of community of property concluded after 1984 where the accrual is excluded. Let us assume that in such a marriage the parties have settled on a benefit of R20 million to be paid the wife at a particular time, she would be in a much better position than the wife who married with accrual, where all the assets had been excluded and no settlement has been given in the antenuptial contract.

Given the complexity of the issues and the research that is needed, courts are not better placed to deal with the extension of the application of the redistribution remedy. This requires legislative intervention, starting with a thorough, balanced investigation, by the South African Law Reform Commission, of the lived realities of divorced spouses. Should the Constitutional Court wish to entertain this matter, various interest groups should be allowed to participate as *amicus* to ensure that a well-considered judgment is delivered regarding the policy and legislative implications of this matter.

REFERENCES

- Brake, Elizabeth. (2009). "Marriage and domestic partnership". (2009).
- Clark, B. (Ed.). (n.d.) *Family Law Service*. Main Binder. Durban: LexisNexis.
- Collier, G. (2021). *The impact of your marriage contract on your financial planning*, 31 March. Retrieved from <https://www.moneyweb.co.za/financial-advisor-views/the-impact-of-your-marriage-contract-on-your-financial-planning/>
- Herbst, M., and Du Plessis, W. (2008). Customary law v common law marriages: A hybrid approach in South Africa. *J. Comp. L.*, 3, 105.
- Isaacs, F. (2021) *Proposed new marriage legislation for South Africans: Have your say, January 14*. Retrieved from <https://www.thesouthafrican.com/lifestyle/>
- Moore, E., and Himonga, C. Living Customary Law and Families in South Africa – In K. Hall, L. Richter, Z. Mokomane & L. Lake (Eds) *Part 2 Children, Families and the State*. Cape Town: Children's Institute, University of Cape Town.

-
- Osman, F. (2020). Family formations in contemporary South Africa: Does South African marriage law protect lived Realities? *International Journal of Law, Policy, and the Family*.
- Roux, T. (2009). Principle and pragmatism on the Constitutional Court of South Africa. *International Journal of Constitutional Law*, 7(1), 106 – 138.
- Sinclair, J. 1987. South Africa: Marriage, property, and money. *J. Fam. L.*, 26, 187.

COURT CASES

1. *Beira v Beira* 1987 (1) SA 967 (A) 987G
2. *Butters v Mncora* [2012] 2 All SA 485 (SCA)
3. *Daniel v Campbell NO and Others* 2004 5 SA331 (CC)
4. *Dawood, Shalabi, Thomas, and Another v Minister of Home Affairs* 2000 1 SA 997 (C)
5. *Fink v Fink and Another* 1945 WLD 226 at 228
6. *Fourie and Another v Minister of Home Affairs and Others* 2005 3 SA 429 SCA
7. *Greyling versus The Minister of Home Affairs and 4 others*, case number 40023/21
8. *Gumede v President of the Republic of South Africa* 2009 (3) SA 152 (CC),
9. *Holomisa v Holomisa* 2019 (2) BCLR 247 (CC)
10. *Mühlmann v Mühlmann* 1984 (3) SA 102 (A)
11. *Pezutto v Dreyer and Others* 1992 (3) SA 379 (A) at 390A-C)
12. *President, RSA v Women's Legal Centre Trust* 2021 (2) SA 381 (SCA).

LEGISLATION

1. Black Administration Act 38 of 1927
2. Constitution of the Republic of South Africa, Act 108 of 1996
3. Divorce Act 70 of 1979
4. Marriage Act 25 of 1961
5. Marriage and Matrimonial Property Law Amendment Act 3 of 1988.
6. Matrimonial Property Act 88 of 1984

SSIRC 2023-126**A PRELIMINARY PROFILE OF PHYSICAL ESPORTS PARTICIPANTS IN SOUTH AFRICA****C. Muller**

North-West University, South Africa

A. Lennox

North-West University, South Africa

J. Bonnema

North-West University, South Africa

S.J. Roos

North-West University, South Africa

ABSTRACT

In general, eSports is in its infancy in South Africa, as reflected by the expected revenue generation probability of R8.2 million by 2023 compared to the revenue of \$1.87 billion expected for the global market. Moreover, the eSports market is experiencing rapid developments and a subsequent rapid shift from eSports as it is known, namely console-based eSports, to a format requiring physical bodily movement from the user to play a virtual game. The lack of reports and statistics alluding to global and country-specific profiles of physical eSports participation emphasises the novelty of physical eSports. As a departure point, this study was among the first to generate a preliminary profile of physical eSports participation contextualised for South Africa. A descriptive research design and a cross-sectional approach were followed. Data were collected via a computer-administered survey where the target population comprised general South African adult consumers aged 18 to 56 years. The data were analysed using IBM SPSS Statistics 28.0, generating a profile using descriptive statistics. Data collected from 474 individuals reveal eSports participation by category, namely physical eSports (24.9%), console-based (11.4%) and non-users (63.7%). By isolating the 24.9 percent of the confirmed physical eSports cases, this study reports that the average demographic profile of a physical eSports participant in South Africa is: “A Generation Y male or female that is 32.86 years of age with at least an undergraduate degree, residing in Gauteng earning a gross income between R12501–R30000 per month. While being willing to spend between R101–R300 for a subscription, this individual engages in physical eSports for recreational reasons, using a smart TV or mobile device paired with a treadmill or bike trainer to run or cycle indoors while mainly doing so on Zwift and has done so for at least six months.” Barriers to participation were also addressed. The growth of physical eSports in South Africa can contribute significantly to the economy and ensure healthier communities, thereby reducing the stress on the healthcare system. Therefore, to their benefit, eSports brands, app and equipment resellers and marketers should capitalise on this study’s results and target South African consumers more effectively.

KEYWORDS: Augmented and virtual reality sports, eSports classification, physical eSports, South Africa, technology innovation in sport

1. INTRODUCTION

This paper is the first in a range of studies that form part of a larger project pioneering the concept of physical eSports. While many readers may be familiar with virtual reality games grounded in traditional sports, such as running, cycling, golf, tennis and dancing, there is no umbrella term for console-based eSports — the commonly known format of eSports (Filchenko, 2018). A new form of eSports has emerged, which now includes virtual games necessitating players' physical movement, thereby necessitating a separation between virtual physical play and controller/keyboard play. While the initial separation is self-explanatory, having a clear idea of what constitutes physical eSports is not as straightforward, with no definitive definition in the literature as of this study. Accordingly, this first paper aims to provide a definition, overview and scope of physical eSports while providing the first-ever scientific user profile of individuals participating in this eSports format in the literature, specifically in the South African context. Further, this paper reports on important background information relevant to this gaming format and the barriers South Africans face with playing these games. This paper concludes with an overview of the average South African physical eSports participant.

The findings produced by this current study have significant implications for the industry as it will assist physical eSports brands, businesses, software and game developers, equipment manufacturers, resellers and, more importantly, marketing professionals to target South African consumers effectively.

2. LITERATURE OVERVIEW

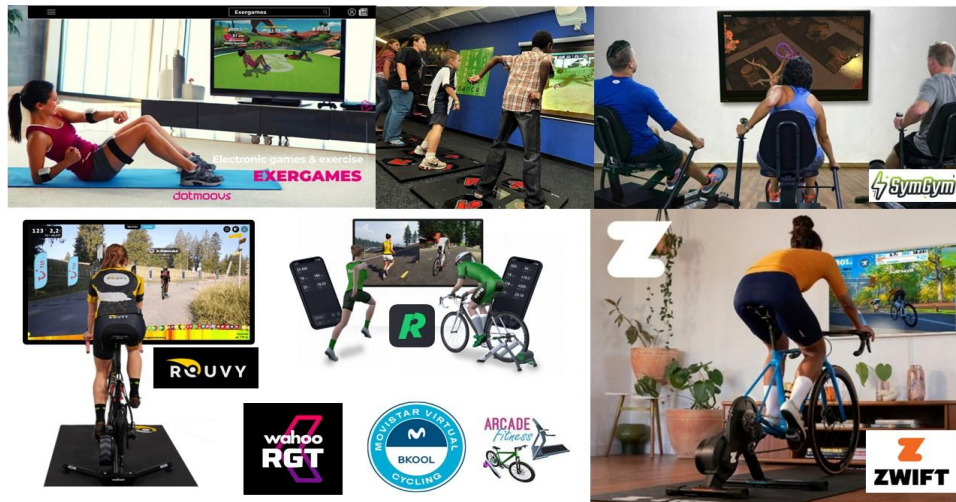
The definition of eSport is open to debate, though universally, eSport refers to any video game competition where individuals or teams compete under regulated conditions (Riatti & Thiel, 2021), drawing spectators (Janas, 2019), virtually and in-person. Furthermore, modern eSports has been defined as “a form of sports where electronic systems facilitate the primary aspects of the activity; the input of players and teams, as well as the output of the eSports system, are mediated by human-computer interfaces” (Sjöblom & Hamari, 2017). In accordance, the digital nature of eSports functions in a similar way as traditional sports, where participants physically participate and compete against other players in the virtual digital world (Gough, 2021a; Sjöblom & Hamari, 2017) while utilising cognitive skills in an attractive virtual digital world (Martin-Niedecken & Schättin, 2020).

Esports, in general, is in its infancy in South Africa, as reflected by the expected revenue generation probability of R8.2 million by 2023 (Gough, 2021b) compared to the global revenue expected of \$1.87 billion (Gough, 2022b). The popularity of eSports is likely attributed to the tremendous growth in the global modern digital society and an increased interest among consumers to be integrated with global social communities that participate in the various games. Therefore, it is likely that the eSports market will expand significantly soon, especially given the numerous eSports formats.

Cranmer *et al.* (2021) proposed an eSport matrix with four realms that distinguish eSport, sport digitisation (representation of popular physical sports: FIFA eWorld Cup, NBA 2K League, F1 eSport Series), competitive multiplayer computer games (traditional/multiplayer game experience:

Streetfighter, StarCraft II, League of Legends), digitally enhanced sport (modify existing sport and player rules and setups through digital augmentations: basketball, football, F1) and immersive reality sport (new types of immersive eSports incorporating VR technologies: Echo Combat and Space Junkies). Furthermore, they identified three scales in the categorisation of eSports, which include physical activity (passive-active), the role of technology (technology-driven-enhanced) and virtuality (physical-virtual environment).

Figure 1. The scope of physical eSports



Source: Authors' compilation

The scope of physical eSports is outlined in Figure 1 to avoid confusion. As such, physical eSports requires physical movement by the participant to play an online game. From the various definitions in the literature, this study defines physical eSports as “virtual video-based gaming, requiring participants to use full-body movements to compete in recreational and competitive virtual and digital environments integrated with an application/game while simultaneously being able to track their progress and interact with participants worldwide.” This form of eSports emanates from traditional sports and requires users to physically move their bodies to play a virtual game based on popular sports codes. The participants may need additional equipment to participate and view the results of their recorded activity or session. The level of participation in physical eSports ranges from recreational or enjoyment purposes to using it as a training platform or for competitive reasons. Examples of physical eSports include Exergaming, running apps like Zwift, Wahoo RGT, Rolla World, Arcade Fitness and virtual marathon races, indoor cycling apps like Zwift, Rouvy, Wahoo RGT, BKool and Rolla World, and strength training solutions like SymGym. The sessions recorded by these apps can be synchronised to performance monitoring apps like Strava or fitness tracker and smartwatch companion apps from brands including Garmin, Fitbit, Polar, Samsung and Apple. Physical eSports, as per the definition and scope of this study, excludes at-home sports simulators like golf, baseball, and soccer, online or DVD-based at-home fitness programmes and sports integrated with console or PC-based video game eSports like FIFA or Tiger Woods golf. Figure 1 illustrates the scope of this study to avoid confusion.

Physical eSports is multifaceted, as it provides users with an opportunity to socialise and integrate as part of global communities (Allenbey, 2022) and complete structured training programmes (Hurley, 2023), which serve as a performance management tool (Dunn, 2017). The attributes

above are what make physical eSport unique. This uniqueness of physical eSports is further evident from the apps, games and equipment used to participate in this form of eSports. Applications for indoor eSports training for cycling include Zwift, Wahoo X (Wahoo SYSTM and RGT), TrainerRoad, Rouvy, BKool, Kinomap, FulGaz, Kinetic Fit, Tacx Training, and Peloton (Von Bromley, 2022), for running includes Peloton, Zwift (Sayer *et al.*, 2023), Arcade Fitness and RollaWorld, where full-body training games include SymGym (Esquada, 2016) and Exergaming (Benzing & Schmidt, 2018; Cataldo *et al.*, 2019). Types of equipment used for indoor training and performance monitoring include bikes, smart trainers, treadmills, fitness mirrors, along with fitness and smart watches (Moscaritolo, 2022). Streaming live sessions and communicating with eSports social communities and clubs are essential to participating in physical eSports. The top streaming and interaction platforms include Twitch, Discord and YouTube (Esports, 2023).

Despite the likely success and global participation of the physical eSports market, the topic's novelty automatically explains the lack of research on the topic. However, some attempts are noted in the literature, particularly regarding virtual physical eSports, that report on some benefits and barriers to participation. Two studies (Benzing & Schmidt, 2018; Cataldo *et al.*, 2019) reported the benefits of Exergaming: engagement and motivation, social interaction, the variety of games and applications and the participant's overall health. However, given the novelty of physical eSports, the literature reporting the barriers is limited. One study revealed two Exergaming barriers, namely that it is costly to the average consumer and there are some associated technical restrictions (Benzing & Schmidt, 2018). Therefore, the benefits and barriers linked to physical eSports participation in general need to be investigated. In accordance, this study provides a departure point and provides some insights into user-identified barriers. However, a more valuable departure point is constructing a user profile of the average physical eSport participant.

Given the novelty of physical eSports in general, primarily in South Africa, paired with the non-existent research on the topic in the country, there are no findings to compare or derive information to report what the typical physical eSports participant looks like in South Africa. The only reference, since the concept is often misinterpreted and physical eSports, namely console-based eSports, is to review the scope of eSports and use these demographic profiles as a departure point when reporting the findings of this study. Nagorsky and Wiemeyer (2020) found that the typical console-based eSports player ranged from 13–47 years and was dominated by males (95%).

All arguments considered, this study aims to provide the first profile of the average physical eSports participant, if not globally, though contextualised for South Africa. The findings have significant theoretical, managerial, and practical implications. That is, at a minimum, the findings will assist physical eSports game designers, app developers, equipment manufacturers and the like in having a strategic position and will provide critical suggestions to target the South African consumer market.

3. METHODOLOGY

3.1 Research design, sampling method and data collection

This study was guided by a descriptive research design and a cross-sectional approach. The target population comprised adult consumers who, in 2022, were aged 18–56 years and residing in South Africa. This age inclusion was based on the definition of generational cohorts by Markert (2004),

where 18–36-year-olds represented the Generation Y cohort, and 37–56-year-olds represented the Generation X cohort.

This quantitative study collected data from 500 general South African consumers at the end of 2022 by implementing a computer-administered survey. In order to ensure a 100 percent response rate, a reputable research company in South Africa with access to thousands of panel members that adhere to ethical standards and POPI Act regulations was used to distribute the online survey. A further consideration was the possible biased nature of the responses since this research company awards participants with points that can be exchanged for vouchers. However, despite this, no prior evidence of biased responses using this company had been reported.

Since this study endeavoured to collect data from a specific target population, quotas were set before distribution. In addition, these quotas, specifically the equal gender, cohort, and age distribution, were vital to limit the skewness of the findings and the possible misrepresentation of an average physical eSports participant. Of course, to report a profile of South African physical eSports participants, the country of residence was a strict requirement where this study targeted adult consumers within the two stated generations.

The following quotas were applicable when the online questionnaire was compiled:

- 500 responses
- 50 percent gender distribution [male: female]
- 50 percent of Generation Y [18–36] and Generation X [37–56]
- Respondents had to be aged 18–56 years in 2022.
- Respondents had to be a South African national residing in the country at the time of the survey.

With these criteria, no data were collected that fell outside the study's target population. The data were returned to the researchers in the form of data files immediately after the quota of 500 was reached. The turnaround time was three days, which was one of the justifications for using this research company.

3.2 Research instrument

The electronic research instrument used in this study consisted of three sections, the first being the cover page that included the study's information, a clear definition and graphical depictions of physical eSports and types to clarify the scope of the research. The cover page concluded with a statement of informed consent emphasising that this was a minimal-risk study based on voluntary participation and respondents could withdraw at any point without penalty. The respondents acknowledged the information and were advised that the results would only be reported in aggregate form. The second section sought to obtain demographic information, including gender, age, province of residence, highest qualification, and individual monthly income before tax. The third section was aimed at understanding respondents' background in terms of traditional sport, but more purposely, physical eSports-related questions and the perceived barriers associated with participating in physical eSports. As for this specific paper, data were validated based on content and face validity, and since a reputable research company was used, the data were automatically deemed reliable.

3.3 Data analysis

Since research linked to physical eSports is in its infancy, it is appropriate for this study to rely on descriptive statistics to report preliminary findings that can be used to build a research repertoire. As such, frequencies were computed for each relevant response to report on the study sample's profile, physical eSports participants' background information and reporting on the barriers the sample associated with participation in physical eSports. Furthermore, the mean values of specific and relevant responses were calculated, and a graphic depiction emerged that represents a profile of the average South African physical eSports participant. The items used to generate this profile included cohort, age, gender, province of residence, income level and highest qualification. Background information that contributed to the profile included physical eSports-related questions (see Table 3). Since the study aimed to generate a preliminary profile based on frequencies and measures of central tendency, no specific cut-off values are applicable.

Some considerations when interpreting the results are as follows. The cohorts were reported as per the definitions by Markert (2004). While the respondents had to indicate their age at the last birthday, this study reports the results as they align with the cohort definitions, whereby 18–26 and 27–36 represent the two upper and lower portions of the Generation Y cohort, respectively, and 37–46 and 47–56 the same, but for Generation X. The income brackets were derived from a South African study (Maphupha, 2018) that outlined the nation's income classes and the coinciding annual income of residents. This study divided these annual income values by 12 and requested respondents indicate their gross monthly income.

4. FINDINGS, DISCUSSION AND RECOMMENDATIONS

With the quota set at 500 responses, a 100 percent response rate was achieved. Although, after performing a Mahala Nobis distance test (Tabachnick & Fidell, 2013), 26 outliers had to be removed, resulting in a 94.8 percent success rate. Furthermore, given the novelty of the concept of physical eSports at the time of data collection, many respondents misinterpreted it with console-based eSports. As a result, the data were split into three categories of eSports participation as it was essential to isolate physical eSports participants from the other respondents. Consequently, the three categories represented by the study sample were as follows: physical eSports (24.9%), console-based eSports (11.4%) and non-users (63.7%).

With the three categories established, further analysis could be reported appropriately. Table 1 outlines the total study sample's profile, while Table 2 presents the isolated 118 physical eSports participant cases. For the total sample, an almost equal gender distribution was achieved, with slightly more female (50.2%) than male (49.6%) respondents. As explained, equal distribution was not achieved for the cohort criteria, with consequent implications for age. Nonetheless, 61 percent of respondents represented the Generation Y cohort, with 25.3 percent aged 18–26 years and 35.7 percent between 27–36 years. Generation X was represented by 39 percent of the sample, with 28.9 percent being aged between 37–46 years, with the least representation from 47–56 years (10.1%).

Table 1. Study sample’s profile

| Category ^a | <i>f</i> | % | Cohort | <i>f</i> | % | Province | <i>f</i> | % |
|----------------------------|----------|------|-----------------------------------|----------|------|---------------------------|----------|------|
| Physical eSports | 118 | 24.9 | Gen Y | 289 | 61 | E-Cape | 27 | 5.7 |
| Console-based | 54 | 11.4 | Gen X | 185 | 39 | Free State | 15 | 3.2 |
| Non-users | 302 | 63.7 | Age | <i>f</i> | % | Gauteng | 226 | 47.7 |
| Gender | <i>f</i> | % | 18-26 | 120 | 25.3 | KZN | 71 | 15 |
| Male | 235 | 49.6 | 27-36 | 169 | 35.7 | Limpopo | 24 | 5.1 |
| Female | 238 | 50.2 | 37-46 | 137 | 28.9 | Mpumalanga | 21 | 4.4 |
| Other | 1 | 0.2 | 47-56 | 48 | 10.1 | N-Cape | 7 | 1.5 |
| Income ^b | <i>f</i> | % | Qualification ^c | <i>f</i> | % | North-West | 10 | 2.1 |
| R0–4500 | 78 | 16.5 | <Grade 12 | 126 | 26.6 | W-Cape | 73 | 15.4 |
| R4501–12500 | 122 | 25.7 | Certif./Dipl. | 138 | 29.1 | Spend ^e | <i>f</i> | % |
| R12501–30000 | 158 | 33.3 | U-degree | 122 | 25.7 | R0 | 51 | 10.8 |
| R30001–52500 | 72 | 15.2 | P-degree | 85 | 17.9 | R1-100 | 144 | 30.4 |
| R52501–72000 | 22 | 4.6 | MBA | 3 | 0.6 | R101-300 | 180 | 38 |
| R72001–110000 | 7 | 1.5 | T-Sport ^d | <i>f</i> | % | R301-R500 | 71 | 15 |
| R110001+ | 15 | 3.2 | Yes | 404 | 85.2 | R500+ | 28 | 5.9 |
| | | | No | 70 | 14.8 | | | |

Notes for the table:

n=474

^a Category — refers to the three types of eSports users.

^b Income — monthly before tax (gross)

^c Qualification — highest | undergraduate and postgraduate degrees

^d T-Sport — traditional sport participation

^e Spend — willing to spend on a monthly eSports subscription

Moreover, most respondents resided in Gauteng (47.7%), followed by Western Cape (15.4%) and KwaZulu-Natal (15%). The other 21.9 percent of the respondents represented the Eastern Cape (5.7%), Limpopo (5.1%), Mpumalanga (4.4%), Free State (3.2%), North West (2.1%) and the Northern Cape (1.5%). The reason for the majority of respondents residing in the Gauteng province may be due to the province being the most densely populated of the other eight (Statistics SA, 2022). It can also generally be accepted that more Gauteng-based consumers completed the survey, given a higher interest in the topic, as these respondents are situated in major metropolitan areas and test markets (For example, Johannesburg, Tshwane, Cape Town) and are usually exposed to leading technology before other areas of the country. As such, reporting that an average South African physical eSports participant primarily resides in Gauteng may also be limited to and perhaps slightly biased in this study sample, simply due to most respondents who happen to reside in Gauteng. A more accurate picture may emerge if there was equal representation from each of the nine provinces, though this limitation should be considered for future studies.

Regarding income classes, a third of the respondents (33.3%) earned a gross income between R12,001 and R30,000 per month. This aligns with a South African employee’s average monthly salary, which in 2023 stood at R26,032 (Business Tech, 2023). A total of 25.7 percent of respondents earned between R4,501 and R12,500, 16.5 percent between R0 and R4,500 and 15.2 percent between R30,001 and R52,500. The remaining 9.3 percent of the sample earned between R52,501 and R72,00 (4.6%), R72,001 and R110,000 (1.5%) and more than R110,001 (3.2%).

The amount of money the respondents were willing to spend on a monthly subscription to access physical eSports games is somewhat related to their income level. That is, 42.2 percent of respondents earned between R0-R12,500, and 41.2 percent were willing to spend only between R0-R100 monthly. The logical explanation could be that these consumers have less disposable income and must prioritise other expenses. A promising finding for physical eSports game developers specifically is that 58.9 percent of the respondents were willing to spend between R101-R300 (38%), R301-R500 (15%) and more than R500 (5.9%) on a monthly subscription.

Contrary to the national average, where only 7 percent of South African adults are reported to have a tertiary education (Organisation for Economic Co-operation and Development (OECD), 2019), 44.2 percent of this study's sample had obtained an undergraduate degree (25.7%), a postgraduate degree (17.9%) and an MBA (0.6%). However, the majority of this study's sample either had a certificate or diploma (29.1%), and 26.6 percent did not complete Grade 12.

There is an expected relationship between consumers who participated in traditional sports and the likelihood of them moving to physical eSports, though in perfect conditions and eliminating the possible barriers. Of the 474 respondents, 404 or 85.2 percent had participated in some form of traditional sports, the most common being soccer, netball, and cross-country running. Only 103 of the 85.2 percent are active physical eSports participants since 15 of the 118 cases had not participated in traditional sports. Again, the most likely reason is the respondents' extensive unfamiliarity with physical eSports, where Table 4 outlines other barriers. Regardless, there are unique opportunities for physical eSports stakeholders, specifically game and equipment developers and marketing professionals, to target South African consumers and increase the awareness of a fun, engaging, safe and healthy way to participate in sports while being part of global sporting communities.

As per the aim of this study, Table 2 isolates the responses recorded by verified physical eSports (p-eSp) cases in the dataset. Compared to the total study sample, the gender distribution remained consistent and distributed nearly equally, with slightly more females with a recorded difference of 0.6 and 0.8 percent, respectively. Therefore, physical eSports participation in South Africa is, at the time of data collection and, according to these respondents, equally represented by both genders. Similarly, there were more respondents and subsequent representation from members of the Generation Y cohort. That is, 61 percent of the study sample and 66.1 percent of the physical eSports participants were represented by Generation Y consumers. Therefore, even though the primary sample had a skewed response rate in terms of the cohort, the findings from the isolated cases affirm that participation by Generation Y consumers outweighs their Generation X counterparts. This finding aligns with the post-COVID growth in console-based eSports participation by South Africans aged 16–35 (VS Gaming, 2021). Further supporting that Generation Y consumers dominate physical eSports participation is that a combined 66.1 of (the isolated) respondents and a combined 61 percent of the study sample were aged 18–36 years. The mean age for the total sample was 34.07 and 32.86 for the isolated physical eSports participants, affirming that physical eSports participants in South Africa, for this sample at the time of data collection, are Generation Y consumers aged 18-36 years.

Table 2. Physical eSports participant sample profile

| Gender | <i>f</i> | % | Cohort | <i>f</i> | % | Province | <i>f</i> | % |
|----------------------|----------|------|----------------------------|----------|-------|--------------------|----------|------|
| Male | 58 | 49.2 | Gen Y | 78 | 66.1 | E-Cape | 7 | 5.9 |
| Female | 60 | 50.8 | Gen X | 40 | 33.9 | Free State | 2 | 1.7 |
| Income ^a | <i>f</i> | % | Age | <i>f</i> | % | Gauteng | 59 | 50 |
| R0-4500 | 10 | 8.5 | 18-26 | 39 | 33.05 | KZN | 19 | 16.1 |
| R4501-12500 | 29 | 24.6 | 27-36 | 39 | 33.05 | Limpopo | 4 | 3.4 |
| R12501-30000 | 46 | 39 | 37-46 | 30 | 25.4 | Mpumalanga | 5 | 4.2 |
| R30001-52500 | 21 | 17.8 | 47-56 | 10 | 8.5 | N-Cape | 0 | 0 |
| R52501-72000 | 3 | 2.5 | Qualification ^c | <i>f</i> | % | North-West | 4 | 3.4 |
| R72001-110000 | 4 | 3.4 | <Grade 12 | 26 | 22 | W-Cape | 18 | 15.3 |
| R110001+ | 5 | 4.2 | Certif./Dipl. | 28 | 23.7 | Spend ^d | <i>f</i> | % |
| T-Sport ^b | <i>f</i> | % | U-degree | 35 | 29.7 | R0 | 4 | 3.4 |
| Yes | 103 | 87.3 | P-degree | 27 | 22.9 | R1-100 | 30 | 25.4 |
| No | 15 | 12.7 | MBA | 2 | 1.7 | R101-300 | 57 | 48.3 |
| | | | | | | R301-R500 | 22 | 18.6 |
| | | | | | | R500+ | 5 | 4.2 |

Notes for the table:

n=118

^a Income — monthly before tax (gross)

^b T-Sport — traditional sport participation

^c Qualification — highest | undergraduate and postgraduate degrees

^d Spend — willing to spend on a monthly eSports subscription

Regarding the province of residence, for both samples, most respondents resided in Gauteng, with 47.7 and 50 percent, respectively. With this, it can be deduced that an average physical eSports participant resides in the country’s most densely populated province. However, this can again be because most respondents were from the province. Therefore, the finding does not reflect the profile of all South Africans, merely the sample. Furthermore, the second and third most significant representation was from the Western Cape and KwaZulu-Natal. However, no preference can be concluded or claimed with such a slight difference reported for both samples (1–2 case difference). A combined 21.9 percent (n=474) of total sample respondents and a combined 18.6 percent (n=118) of the physical eSports participants resided in the other six provinces, with the latter having zero representation from the Northern Cape.

There was only a small difference between participation in traditional sports between the two samples, where, respectively, 85.2 percent and 87.3 percent had participated in traditional sports, and respectively 14.8 and 12.7 percent did not. Those who participated in physical eSports were automatically assumed to have participated in some form of traditional sport, which exposed them to the virtual world. This finding is positive for physical eSports stakeholders since the successful diffusion and adoption of physical eSports games, equipment and platforms are not reliant on historical experience with the sport, and the targeting strategies are open to all consumers.

Additional findings suggest that physical eSports participants in South Africa are slightly more affluent and educated than the averages recorded for the total sample. That is, while most respondents from both samples earned between R4501–R1200 [Total=25.7% & P-eSp=24.6%] and between R12501–R30000 [Total=33.3% & P-eSp=39%], meaning skewed to the left in both

cases. The slightly higher affluence is deduced because 27.9 percent of physical eSports cases earned above R30001, compared to the 24.5 percent average recorded for the total sample.

Most of the total sample had a certificate or diploma (29.1%), followed by 26.6 percent have not completed Grade 12, yet 25.7 percent possessed an undergraduate degree. Fewer respondents had a postgraduate degree (17.9%) or MBA (0.6%). In comparison, most physical eSports participants had an undergraduate degree (29.7%), followed by a certificate or diploma (23.7%) and then a postgraduate degree (22.9%). However, a significant portion had not completed Grade 12, with two out of the three participants representing the MBA graduates of the study sample. As such, it can be said that as the level of education increases, so too does the likelihood of physical eSports participation among tertiary-educated South African consumers. As such, physical eSports game and equipment developers, resellers and marketing professionals should intentionally target tertiary-educated South Africans. These consumers are likely higher-income earners with a higher disposable income.

The last aspect with similar yet slightly different results relates to South Africans' willingness to spend a certain amount of money on a monthly subscription to access physical eSports games. The total and isolated samples were willing to primarily spend between R101–R300 on a monthly subscription, followed by R1–R100. The major difference is that 10.8 percent of the combined sample were willing to spend R0 on a subscription, compared to 3.4 percent of the physical eSports participants. To understand the current South African physical eSports market, this study asked respondents who confirmed their physical eSport participation to respond to specific questions. The responses are outlined in Table 3.

There are two main reasons for participating in physical eSports, namely for recreational purposes, which include playing the game, socialising, staying healthy or completing a structured training program, or competing against other participants in structured events such as e-racing. Of the 118 respondents, 108 or 91.5 percent of South African participants do so for recreational purposes, whereas only 20 or 16.9 percent actively compete in e-racing. Targeting South Africans by emphasising that physical eSports games have several recreational benefits may increase participation. Per the definition of physical eSports, participants must use their bodies to play a game. As such, respondents had to indicate the type of eSport game they played, where they could indicate all applicable types, meaning for some, there were multiple types. From the data, 22 or 18.6 respondents participated in full-body games, 53 or 44.9 percent in indoor cycling games and 60 or 50.8 percent in indoor running games.

Knowing which applications or games respondents use will enable pointed industry recommendations. A limitation of the findings presented is that 48.3 percent of the respondents did not specify the application or game they used, or others were identified. Further, besides the findings of this study showing slightly higher participation in indoor running (50.8%) as opposed to indoor cycling (44.9%), the latter is the globally preferred eSports type. Additionally, the most popular indoor cycling application is Zwift (Von Bromley, 2022) and this is reflected by this study's eSports sample, with a recorded 39 percent being Zwift users. As one of the longest-standing physical eSports games, the Zwift app went commercial at the end of 2014 or early 2015 (Zwift, 2015) and has since reached a market value above \$1 billion (Christovich, 2023). This

game alone had a reported 3 million users worldwide in 2021 (Reed, 2021), and the opportunity should be taken to target and increase user rates among South African consumers.

Table 3. Physical eSports participants’ background information

| Reason^a | <i>f</i> | % | Platform^d | <i>f</i> | % |
|-------------------------------------|----------|------|-----------------------------|----------|------|
| Recreation | 108 | 91.5 | Mobile | 54 | 45.8 |
| Competitive | 20 | 16.9 | Tablet | 16 | 13.6 |
| | | | PC/Laptop | 45 | 38.1 |
| | | | Smart TV | 61 | 51.7 |
| Application/Game^c | <i>f</i> | % | Equipment | <i>f</i> | % |
| Arcade Fitness | 6 | 5.1 | Bike-related | 24 | 20.3 |
| Exergaming | 3 | 2.5 | Bike trainer | 30 | 25.4 |
| Peloton | 1 | 0.8 | Foot pod | 24 | 20.3 |
| SymGym | 4 | 3.4 | Treadmill | 60 | 50.8 |
| Rouvy | 1 | 0.8 | Other | 5 | 4.2 |
| Zwift | 46 | 39 | Period^e | <i>f</i> | % |
| Not specified/other | 57 | 48.3 | A week-month | 26 | 22 |
| eSport-type^b | <i>f</i> | % | 3-6 months | 33 | 28 |
| Full body | 22 | 18.6 | Six months – 1 year | 27 | 22.9 |
| Indoor cycling | 53 | 44.9 | 1-2 years | 17 | 14.4 |
| Indoor running | 60 | 50.8 | 2 years + | 9 | 7.6 |
| | | | Missing | 6 | 5.1 |

Notes for the table:

n=118

^a Reason for participation | The responses overlap since some participants had dual motives for participating.

^b eSport-type — since respondents were not limited to one response, it is likely that some participate in more than one type of eSport.

^c Application or game — respondent had to select their primary preference.

^d Platform — respondents could select all applicable platforms, and overlaps are likely.

^e Period pertains to how long respondents have been participating in physical eSports.

Reporting the platforms used in physical eSports is vital since game and application developers can optimise the games for these platforms. For example, an app should work seamlessly on smart TVs, more so as on Tablets, thereby ensuring improved accessibility to these games and apps. The most preferred platforms were smart TVs (51.7%), followed by mobile devices such as smartphones (45.8%), personal computers or laptops (38.1%) and tablet devices (13.6%). Many physical eSports participants generally prefer to use a combination of these devices, such as using a smartphone or laptop to run the application while projecting the screen on a larger display using a cable or casting device. This enhances the gaming experience significantly. Tablets are not preferred in comparison. As such, apps and games must be optimised primarily for smart TVs and mobile devices while ensuring high functionality on personal computers/laptops.

Similarly, game and app developers, specifically eSports equipment manufacturers, can benefit greatly if they have data reporting the equipment used by physical eSports participants. There was 24 or 20.3 percent of the 118 cases that used bike-related equipment, including speed and cadence sensors attached to a bicycle that serves as the input to control the game. Dedicated bike trainers, whether dumb or smart trainers, were used by 30 or 25.4 percent of the respondents. As for indoor

running apps or games, 24 or 20.3 percent used a foot pod and whether in collaboration with or independently, 60 or 50.8 percent used a treadmill. These findings align with the eSports types identified. However, future research should include smart wearables like wearable activity trackers as input sensors to control these apps and games.

Lastly, this study aimed to determine how long respondents had participated in physical eSports. The findings affirm that physical eSports is a new concept among South African consumers, where only 53 had been engaging with these apps and games for more than six months and 59 between a week and six months.

In line with the study's findings, a physical eSports participant in South Africa can be described as follows:

“A Generation Y male or female 32.86 years of age with at least an undergraduate degree, residing in the Gauteng province earning a gross income between R12501–R30000 per month. While being willing to spend between R101–R300 for a subscription, this individual engages in physical eSports for recreational reasons, using a smart TV or mobile device paired with a treadmill or bike trainer to run or cycle indoors while mainly doing so on Zwift, and has done so for at least six months.”

With a preliminary description of a South African physical eSports participant, the question that needs to be addressed relates to the barriers associated with participation. As such, the remainder of the sample had to indicate why they did not engage with physical eSports. These reasons, in descending order, are outlined in Table 4.

Table 4. Barriers to physical eSports participation

| Barriers | <i>f</i> | % |
|--------------------------------------|----------|-------|
| Preference for traditional sports | 73 | 20.51 |
| Not having the resources | 62 | 17.42 |
| Unfamiliar with the technology/games | 61 | 17.13 |
| Expensive/waste of money | 31 | 8.71 |
| Not having the time | 29 | 8.15 |
| Lack of interest | 19 | 5.34 |

Notes for the table:

n=356

Respondents could select a maximum of two reasons.

The two main barriers associated with physical eSports participation were a preference for traditional sports and not having the resources needed to participate in physical eSports, referring to the funds, equipment, and physical space. In South Africa, sport has served as a crucial vehicle to unite the nation regardless of external challenges. Sport has allowed people from all over the country to come together, celebrate momentous moments and socialise. With the main barrier being a preference for traditional sports, physical eSports stakeholders have a massive task at hand if they want to sway this preference. A possible approach could be to convince South Africans that, when the opportunities to play and consume traditional sports, they can continue the uniting

effect by participating in physical eSports, where several apps and games allow them to engage with friends, family, peers, and international users at their convenience.

Addressing the lack of resources, physical eSports stakeholders should partner with recreation facilities, universities and private fitness centres like gymnasiums and integrate physical eSports equipment in their service offering. This will increase awareness of and accessibility and effectively target both generations. This will also address the third barrier, namely the unfamiliarity with the technology. Another recommendation to address the latter barrier is that physical eSports apps and game developers, equipment manufacturers, resellers and marketing professionals should allocate more of their budget to marketing efforts. With that, they should use paid and targeted ads to target South African consumers and introduce them to the games, apps, technology, equipment, and subscription options while emphasising the numerous benefits linked to this form of eSports. By explaining the price of the benefits and uses of these games and apps, consumers will likely adapt their perception of this form of eSports being too expensive or a waste of money.

Overall, the low response regarding not being interested in physical eSports is a positive and hopeful finding for the South African eSports market. This perception may also change more positively by implementing the recommendations in this paper. Lastly, with only 8.15 percent of this sample indicating a lack of time as a barrier, the same stakeholders need to emphasise that users have access to customised and shorter routes and events that can easily be integrated with their schedule, especially since they will save time travelling as with normal outdoor activities.

5. CONCLUSION

Physical eSports is expected to grow in South Africa, albeit slowly, and as with many Western countries, will eventually become mainstream. For physical eSports apps, equipment developers and manufacturers to effectively target the appropriate customer segments, they need access to literature that can guide their efforts. To this end, this study generated a preliminary profile of South African physical eSports participants, the first study of its kind. This study also revealed essential barriers to participating in physical eSports from a South African consumer's perspective. Given that this eSports format is in its infancy, practically and specifically as a research theme, several future studies are recommended. Future suggested research to guide marketing and industry efforts should investigate behavioural aspects, perceptions and adoption behaviour related to physical eSports apps, games, and live events in South Africa and abroad.

REFERENCES

- Allenbey, C. (2022). How Zwift is creating an online community for cyclists. Bikeradar. Retrieved from <https://www.bikeradar.com/advertising-feature/zwift-online-community/>
- Benzing, V. & Schmidt, M. (2018). Exergaming for children and adolescents: Strengths, weaknesses, opportunities, and threats. *Journal of Clinical Medicine*, 7(11):422.

-
- Business Tech. (2023). *These job sectors pay the highest average salaries in South Africa*. Retrieved from <https://businesstech.co.za/news/wealth/676933/these-job-sectors-pay-the-highest-average-salaries-in-south-africa>
- Cataldo, LJ, Alic, M & Atkins, WA. (2019). *Exergaming*. Retrieved from <https://reference.jrank.org/fitness/Exergaming.html>.
- Christovich, A. (2023). *Zwift Continues to Level Up With \$620M Investment*. Retrieved from <https://tinyurl.com/mr374xe8>.
- Cranmer, E. E., Han, D. I. D., van Gisbergen, M., & Jung, T. (2021). Esports matrix: Structuring the esports research agenda. *Computers in Human Behavior*, 117, 106671.
- Dunn, N. (2017). *Managing Performance*. Zwift Insider. Retrieved from <https://zwiftinsider.com/managing-performance/>.
- ESPORTS.Net. (2023). *Esports streaming platforms: where can you watch esports online?* Retrieved from <https://www.esports.net/wiki/guides/esports-streaming-platforms/>.
- Esqueda, A. (2016). This exercise equipment doubles as a video game controller. Cnet. Retrieved from <https://www.cnet.com/culture/this-exercise-equipment-doubles-as-a-video-game-controller-tomorrow-daily-401-show-notes/>.
- Filchenko, M. (2018). A comparison between esports and traditional sports. Introduction to Games Studies.
- Gough, C. (2021a). *Esports market - statistics & facts*. (Video Gaming & eSports). Retrieved from https://www.statista.com/topics/3121/esports-market/#topicHeader__wrapper.
- Gough, C. (2021b). *Market value of the esports in south africa from 2014 to 2023, by category (in million South African rand)*. (Video Gaming & eSports). Retrieved from <https://www.statista.com/statistics/1067793/south-africa-value-esports-market-type/>
- Hurley, S. (2023). *Indoor Cycling Training Plan: Beginner's Guide to Indoor Cycling*. Trainerroad. Retrieved from <https://www.trainerroad.com/blog/the-beginners-guide-to-indoor-cycling-training/>.
- Janas, M. (2019). *Cycling powers further into esports*. (eSports). Retrieved from <http://thesportdigest.com/2019/10/cycling-powers-further-into-esports/>.
- Maphupha, P. (2018). *The reliability of public transport: a case study of Johannesburg*. (Bachelor of Technology). University of Johannesburg, Johannesburg.
- Markert, J. (2004). Demographics of age: Generational and cohort confusion. *Journal of Current Issues & Research in Advertising*, 26(2):11–25.
-

-
- Martin-Niedecken, A.L. & Schättin, A. (2020). Let the body'n'brain games begin: Toward innovative training approaches in esports athletes. *Frontiers in Psychology*, 11:138.
- Mateo, A., SI Showcase & Pillar4. (2023). *The best indoor cycling apps: which is the right one for you?* Retrieved from <https://www.si.com/showcase/fitness/best-indoor-cycling-app>.
- Moscaritolo, A. (2022). *Work out at home: the best smart fitness equipment for 2023*. Retrieved from <https://www.pcmag.com/picks/the-best-smart-home-gym-equipment>.
- Nagorsky E, Wiemeyer J. (2020). The structure of performance and training in esports. *PLoS ONE*, 15(8): e0237584.
- Organisation for Economic Co-operation and Development. (2019). *Education at a glance*. Retrieved from https://www.oecd.org/education/education-at-a-glance/EAG2019_CN_ZAF.pdf.
- Reed, R. (2021). *Do you even Zwift? the indoor cycling platform is having a moment*. Retrieved from <https://www.forbes.com/sites/robreed/2021/02/17/do-you-even-zwift-the-indoor-cycling-platform-is-having-a-moment/?sh=3198cdb63f86>.
- Riatti, P., & Thiel, A. (2021). The societal impact of electronic sport: a scoping review. *German Journal of Exercise and Sport Research: Sportwissenschaft*, 1–14. <https://doi-org.nwulib.nwu.ac.za/10.1007/s12662-021-00784-w>
- Sayer, A., SI Showcase & Pillar4. (2023). *The best treadmill apps for running and walking indoors in 2023*. Retrieved from <https://www.si.com/showcase/fitness/best-treadmill-app>.
- Sjöblom, M. & Hamari, J. (2017). Why do people watch others play video games? An empirical study on the motivations of Twitch users. *Computers in human behavior*, 75:985-996.
- Statistics SA. (2022). *Mid-year population estimates 2022*. Pretoria.
- Stryda. (2023). *5 Best esports apps to take your game up a notch*. Retrieved from <https://stryda.gg/news/5-best-esports-apps>.
- Tabachnick, B.G., & Fidell, L.S. (2013). *Using Multivariate Statistics* (6th ed.). Pearson.
- Von Bromley, S. (2022). *The best indoor cycling apps compared: which training app should you use?* Retrieved from <https://www.bikeradar.com/advice/buyers-guides/best-indoor-cycling-apps/>.
- VS Gaming. (2021). *The evolution of sports*. (Traditional sporting schools are dominating in VS Gaming). Retrieved from <https://vsgaming.co.za/discover/evolution-sports>.
- Zwift. (2015). *The early days*. Retrieved from <https://www.zwift.com/news/102-the-early-days>.
-

SSIRC 2023-127**AN EXPLORATORY STUDY OF YOUNG ADULTS' PERCEPTIONS OF ADULTHOOD THROUGH SUBLIMINAL MESSAGING IN SELECTED TELEVISION CARTOONS****K. Rabanye**

North-West University, South Africa

C. T. Lenyidi

North-West University, South Africa

O. Maunatlala

North-West University, South Africa

ABSTRACT

This study explores the perceptions of young adults regarding adulthood through subliminal messaging in television cartoons. Its primary objective is to understand the potential influence of subliminal messages within these cartoon programmes on the attitudes young adults have towards adulthood. Cartoons are a ubiquitous part of popular culture, and they play an important role in shaping the attitudes and beliefs of young adults. While extensive research exists on the effects of overt messaging in cartoons, the potential impact of subliminal messaging on young adults' perceptions of adulthood remains relatively uncharted. Adulthood is a multifaceted concept shaped by social, cultural, and psychological factors. Young adults' perceptions of adulthood can be influenced by various factors, including their personal experiences, socialisation, and exposure to media messages. Cartoons are especially intriguing to study in this context because they cater to young viewers and often present simplified, exaggerated portrayals of adult characters and behaviours. The cultivation theory is considered to explain how repeated exposure to subliminal messages in cartoons may shape young adults' perceptions of adulthood, emphasising the importance of responsible media consumption. While the use of subliminal messaging in media has been controversial, evidence suggests that it can have a subtle but powerful influence on viewers' perceptions and behaviours. Thus, this study focuses on selected cartoons, including *SpongeBob SquarePants*, *The Simpsons*, *Avatar: The Last Airbender*, and *The Boondocks*. By employing a qualitative research design, to collect data from a sample of 20 young adults aged between 18 - 30 years. The study's findings can help shed light on the potential impact of subliminal messaging in cartoons on young adults' perceptions of adulthood, contributing to a better understanding of the role of media in shaping attitudes and beliefs.

KEYWORDS: adulthood, attitudes, cartoons, cultivation theory, subliminal messaging,**1. INTRODUCTION**

The role of media in shaping young adults' perceptions of adulthood has been a subject of interest in various fields of study. In particular, the influence of subliminal messaging in the media on people's attitudes and behaviours has been extensively studied in psychology and communication

studies. According to research, subliminal messages can affect people's perceptions and behaviour without their conscious awareness (Dixon & Foster, 2014). Among the various types of media, television shows, including cartoons, are among the most popular sources of entertainment for young adults (Vaterlaus *et al.*, 2019; Wijethilaka, 2020). However, the content of television shows, especially the presence of subliminal messaging, has been criticized for potentially conveying harmful messages to young audiences (Borovac & Zekan, 2022). Therefore, exploring young adults' perceptions of adulthood through subliminal messaging in cartoon television shows is a crucial area of research.

Previous studies have explored the impact of media on young adults' development, including their social, emotional, and cognitive well-being (Madigan *et al.*, 2019). However, few studies have specifically examined how subliminal messaging in cartoon television shows may influence young adults' perceptions of adulthood.

Therefore, this study aims to fill this gap by exploring young adults' perceptions of adulthood through subliminal messaging in cartoon television shows. According to research, subliminal messages, which are concealed or disguised messages that viewers do not consciously receive, can influence people's views and behaviours (Zdravkovska, *et al.*, 2021). The purpose of this research is to investigate young adults' perspectives on adulthood through subliminal messages in cartoon television shows, through the themes that arise from young people's responses using a qualitative questionnaire and thematic analysis and sheds light on how subliminal messaging in television cartoon shows may alter their perceptions of adulthood.

2. LITERATURE REVIEW

2.1 Theoretical framework

The use of subliminal messaging in media has been controversial for decades. Subliminal messaging includes hidden messages in media content that are not consciously perceived by the viewer but can affect their attitudes and actions. While the use of subliminal messaging in media has been debated, research suggests that it can subtly but significantly influence viewers' perceptions and behaviours. Karremans, *et al.* (2006) found evidence of this in their study, where participants who were subliminally exposed to messages exhibited changes in their behaviour.

According to a study conducted by Karremans *et al.* (2006), individuals who were subconsciously exposed to positive words had a higher likelihood of selecting a drink associated with the brand paired with positive words, as opposed to those who were not exposed to such words. This implies that subliminal messaging has the potential to influence consumer choices and preferences. Although the impact of explicit messaging in cartoons has been extensively researched, the possible influence of subliminal messaging on young viewers remains largely unexplored. Cartoons, which are created to appeal to young viewers and often portray adult characters and behaviours in a simplified and exaggerated manner, present a fascinating subject of study in this regard (Lemish, 2007).

The idea of adulthood is intricate and diverse, encompassing a range of social, cultural, and psychological aspects. How young individuals understand adulthood can be shaped by various

factors, such as personal experiences, socialisation, and exposure to media messages. Arnett's (2000) research coined the term "emerging adulthood" to describe the transitional phase between adolescence and adulthood, characterised by identity exploration, instability, and a focus on self-growth. The study highlights that emerging adults' perceptions of adulthood are influenced by their cultural context and socialisation experiences.

2.2 Cultivation Theory

The cultivation theory, proposed by George Gerbner and Larry Gross, is a communication theory that can be applied to the perceptions of young adults regarding adulthood through subliminal messaging in cartoons.

According to the theory, the media has a long-term and cumulative effect on viewers' perceptions of the world, shaping their beliefs and attitudes over time (Gerbner, 1998). The cultivation theory posits that television programmes, movies, and other forms of media are the primary source of shared meanings and messages about society and culture (Vinney, 2019). Gerbner and his co-authors argue that repeated exposure to media messages leads to the cultivation of shared beliefs and values among viewers. Thus, the cultivation theory suggests that television programmes are an important source of cultural messages that shape viewers' attitudes and beliefs about the world (Shrum, 2017).

According to Morgan and Shanahan (2010), this theory is based on the fundamental assumption that television serves as a primary source of entertainment and information for most individuals. The theory suggests that television's pervasive impact can lead to a shared understanding of reality, which can influence people's attitudes, beliefs, and behaviours. Gerbner (1972) argues that "television cultivates from infancy the very predispositions and preferences that used to be the reward of a long and rich socialisation process, one in which the child gradually learns what he can and cannot expect from other people in his environment, and what he can and cannot expect from himself." This quote highlights that television can significantly shape people's beliefs and attitudes, especially among young individuals who are still in the process of developing their worldviews.

The cultivation theory encompasses a significant concept known as 'resonance,' which illustrates the degree to which television content reinforces an individual's personal experiences. This concept holds relevance when scrutinising young adults' perceptions of adulthood through subliminal messaging conveyed in cartoons. If young adults have encountered negative experiences with adult figures like parents or teachers, they may be inclined toward negative portrayals of adults in cartoons. Gerbner (1972) asserts that "if the viewer's social reality is congruent with the images on the screen, his own experiences are reinforced, and if it is discrepant, his experience is contradicted and thus disrupted." In the case of young adults' perceptions of adulthood through subliminal messaging in cartoons, resonance can help explain how certain messages may be influential depending on the viewer's personal experiences.

The cultivation theory has gained immense popularity in the realm of media research for its effectiveness in analysing the influence of media on viewers' beliefs and attitudes. Studies exploring the impact of media on topics such as violence, gender, and race have widely employed

this theory (Morgan & Shanahan, 2010). Nonetheless, the potential of the cultivation theory in investigating the perceptions of young adults towards adulthood via subliminal messaging in cartoons remains largely unexplored.

The cultivation theory provides a comprehensive framework that can aid in comprehending the potential impact of subliminal messaging in cartoons on young viewers' perceptions of adulthood. The repeated exposure to certain messages in cartoons that portray adults in either a positive or negative light can have a profound impact on the attitudes of young viewers towards adulthood. By applying the cultivation theory, we can understand how the subliminal messages in cartoons shape the belief systems of young viewers. If young viewers are exposed to negative subliminal messages, such as the portrayal of corrupt or incompetent adults, it may lead to a belief system that is distrustful and disrespectful towards adult figures. Conversely, positive subliminal messages that highlight the importance of hard work and perseverance can cultivate a belief system that values these qualities and sees them as crucial for success in adulthood.

Various research studies have been carried out to evaluate the cultivation theory and assess the influence of media on the attitudes and beliefs of viewers. For instance, Shrum, Wyer, and O'Guinn (1998) conducted a study that explored the cultivation of consumer attitudes and beliefs through advertising. The study revealed that regular exposure to advertising resulted in the cultivation of beliefs and attitudes about products, as well as general attitudes about the world. Another study by Morgan and Shanahan (2010) examined the effect of television news on viewers' perceptions of crime. The study found that individuals who watched a lot of television news tended to overestimate the prevalence of crime in their communities and had a critical view of law enforcement.

In the context of cartoons, Stockdale, and Coyne (2018) conducted a study that investigated the cultivation of aggressive behaviour in preschool children who were exposed to violent content in cartoons. The study found that children who were exposed to violent cartoons showed higher levels of aggression than those who were not exposed.

Cartoons, such as *SpongeBob SquarePants*, *The Simpsons*, *Avatar: The Last Airbender*, and *The Boondocks*, are popular among young adults. These cartoons have subliminal messages that may influence how young adults perceive adulthood. In the case of *SpongeBob SquarePants*, repeated exposure to subliminal messages that portray adults as incompetent and foolish may cultivate a belief system that is disrespectful and distrustful of adult figures.

In *SpongeBob SquarePants*, the character of Mr. Krabs, *SpongeBob's* boss, is portrayed as greedy and money hungry. According to Gerbner (1998), repeated exposure to the negative portrayals of adult figures in the media can lead to the cultivation of a negative belief systems about adults. This negative belief system may result in young adults becoming distrustful of and disrespectful towards adult figures in real life. In the case of *The Simpsons*, repeated exposure to subliminal messages that portray adults as flawed and dysfunctional may cultivate a belief system that is cynical and distrustful of adult figures (Morrow, 2008). In *The Simpsons*, the character of Homer Simpson, the father of the family, is portrayed as lazy, incompetent, and selfish. This may result in young adults becoming cynical and distrustful of adult figures in real life.

The Avatar: The Last Airbender series presents an interesting example of the potential effects of subliminal messaging on young adults. Specifically, the repeated portrayal of adult figures as wise and capable through the character of Iroh may contribute to the cultivation of a positive belief system towards adults. This belief system, in turn, could foster greater respect and trust towards adult figures in real life. As noted by Robinson *et al.* (2007) exposure to positive media portrayals can have a significant impact on the development of young adults' attitudes and beliefs. This highlights the need for further research in this area to better understand the potential effects of media on youth development.

In *The Boondocks*, the character of Uncle Ruckus, an elderly black man, is portrayed as a self-hating, racist character who criticises and oppresses other black characters (Smith, 2018; Palfrey *et al.*, 2009). These repeated exposures to negative portrayals of adult figures in the media can lead to the cultivation of a negative belief system about adults and black characters. This may result in young adults becoming racists, criticising others, and oppressing another race, which is a very serious topic in the world.

In conclusion, subliminal messaging in cartoons can have a powerful impact on young adults' perceptions of adulthood. Studies have shown that the theory of cultivation applies not only to traditional media, such as television and movies but also to advertising and cartoons. The cultivation theory provides a useful framework for understanding the potential impact of repeated exposure to subliminal messages on young adults' attitudes towards adulthood. Therefore, it is important for media creators to use subliminal messaging responsibly and for young adult viewers to consume media messages critically.

3. METHODOLOGY

3.1 Research design

The methodology for studying young adults' perceptions of adulthood through subliminal messaging in cartoons draws on a qualitative approach, which is most suitable for this type of research.

Aspers & Corte (2019) define qualitative research as a holistic, interpretative approach to the subject matter within its natural setting or state. This means that qualitative studies aim at investigating events that happen within the environments they occur in and constructing and assigning meaning to individuals. According to McGuirk & O'Neill (2016) rather than measuring and quantifying aspects of social reality, qualitative research employs methodologies aimed at understanding the complexity of everyday life, the intricacies of meaning-making in an ever-changing environment, and the diversity of variables that form human lived experiences (Herbet, 2012).

This approach was particularly pertinent to the study, which aimed to delve into the nuanced and multifaceted perceptions of adulthood shaped by subliminal messages in cartoons, requiring a comprehensive understanding that goes beyond mere measurement and quantification.

3.2 Sampling method

The study used purposive sampling, which involved selecting participants based on specific criteria. In this case, participants were selected based on their age and exposure to cartoons. The sample consisted of 20 young adults aged between 18 - 30 years who regularly watch cartoons.

The utilisation of purposive sampling ensures that participants not only fall within the desired age range but also possess the critical attribute of regular exposure to the medium under investigation. This sampling method allows for the focus on individuals with the most relevant characteristics and experiences, thereby maximising the depth and relevance of the data collected. Furthermore, it aligns with the cultivation theory-driven approach which requires participants likely to have been exposed to the selected cartoons and subliminal messages, ultimately enhancing the study's capacity to address its aims effectively.

3.3 Research instrument

The proposed research instrument for this study is a questionnaire, which was administered online for ease of access. The selected research instrument was chosen for this study because it best answered the questions and fulfilled the study's aims. Additionally, they provide participants with the freedom to express their thoughts, encouraging comprehensive and nuanced responses. This approach is especially valuable for a complex, exploratory study where detailed and context-rich insights are essential. Open-ended questions also facilitate thematic analysis, enabling the identification of recurring themes and unique perspectives. Unlike their quantitative counterparts, which make use of close-ended questions with predetermined responses; qualitative questionnaires allow for in-depth, personalised, and rich material as "respondents are encouraged to answer the questionnaire based on their own experiences" (Eckerdal & Hasgstrom, 2016).

Overall, open-ended questionnaires offer flexibility, depth, and the ability to capture diverse viewpoints, making them the ideal choice for this research.

3.4 Data collection

The data for this study was collected over a duration of three (3) weeks to ensure a thorough exploration of young adults' perceptions of adulthood through subliminal messaging in cartoons. Open-ended questionnaires were administered to 20 participants aged between 18-30 years, all of whom were regular viewers of cartoons, thus allowing for a comprehensive and in-depth analysis of their insights and experiences.

The questions were aimed at eliciting relevant information concerning perceptions of adulthood through cartoons. Questions relating to how often they watch cartoons, if they notice subliminal messaging within cartoons, what they think the characteristics of an adult are, and if adults are portrayed accurately within these cartoons were asked throughout the questionnaire.

- The questionnaire had five sections:
- Section "A" is on the personal data of the respondents, which is inclusive of demographical information.

- Section “B” is on the participants’ television habits. It has three (3) items/questions.
- Section “C” contains questions on perceptions about adulthood. It has three (3) items.
- Section “D” is on perceptions of cartoon television shows, which has three (3) items.
- Section “E”, made up of five (5) items, is on the perceptions of adulthood in cartoon television shows.

The instrument was structured into close-ended questions and open-ended questions. Respondents were then instructed to respond according to the degree of their understanding of the statements and questions contained in the instrument.

3.5 Data analysis

For the interpretation of the collected data, thematic analysis will be adopted as the analytic measure for this study. Thematic analysis is defined as a qualitative method of detecting, interpreting, and reporting patterns within a data set (Kristina & Matthew, 2019). Sundler, *et al.* (2019) further describe the goal of thematic analysis as the quest for underlying themes that appear as significant depicitors of a phenomenon (Braun & Clarke, 2006; 2013).

According to Sundler *et al.* (2019), thematic analysis is conducted in three steps: First, the researcher needs to gain acquaintance with the data by reading with open-mindedness, this allows the researcher to investigate the experiences reflected in the data, determining how they are narrated and how meanings might be comprehended. Keeping the study’s goal in mind is to illuminate unique information rather than inform what is already known.

Secondly, the pursuit of themes and meanings deepens as the researcher notes down meanings corresponding to the study’s aim, further identifying similarities and differences between meanings and therefore conceptualising a pattern and preliminary name. This process involves coding, which is assigning a label or tag to a section of data based on its meaning (Nowell *et al.*, 2017).

Lastly, themes are developed from organised meanings and patterns. At this point, with the reflective mind of the researcher, the findings are constantly rewritten until tentative themes reflect the essence of the original data (Vaismoradi *et al.*, 2016).

In the context of interpreting data on perceptions of adulthood through cartoon shows, thematic analysis can assist the researcher in identifying common and distinctive patterns and themes across various participants (Robinson *et al.*, 2007). For example, the research may suggest that subliminal signals are more typically related to certain perceptions of adulthood, such as what it means to be an adult, their attitudes towards adulthood, and their experiences of being exposed to subliminal messages in cartoons (Booker, 2010). Alternatively, the research may indicate significant disparities in adulthood beliefs based on demographic parameters such as age or gender (Voelkle *et al.*, 2012).

Finally, the researcher presents the findings in a clear and concise manner, using relevant quotes and examples from the data to support the themes (Sundler *et al.*, 2019). The researcher also discusses the implications of the findings and how they overall relate to the research.

As a result, thematic analysis is a valuable tool for comprehending perceptions of adulthood through subliminal messages in cartoons. It provides a detailed and nuanced analysis of the data, which can assist researchers in identifying significant patterns and themes in participants' perceptions of adulthood and the potential impact of subliminal messages in cartoons on these perceptions (Atabey, 2021).

3.6. Data analysis process

Once the questionnaire responses were collected, a systematic data analysis process was undertaken to extract meaningful themes and patterns from the large quantities of qualitative data. The analysis process involved several key steps as highlighted by Voelkle, *et al.*, (2012); Sundler *et al.*, (2019); Atabey, (2021) and Robinson *et al.*, (2007):

- a. **Data Preparation:** Initially, all responses were transcribed and organised, ensuring that each participant's input was easily accessible for analysis. This step involved compiling the text-based responses into a coherent dataset.
- b. **Familiarisation:** To gain a holistic understanding of the data, this involved reading through each participant's contributions multiple times to become immersed in the content.
- c. **Initial Coding:** Using Excel, the data was subjected to initial coding. This process involved identifying and labelling specific phrases, sentences, or paragraphs that contained key concepts or ideas related to the study's research questions. Codes were generated in an inductive manner, allowing themes to emerge naturally from the data itself.
- d. **Generating Themes:** After initial coding, codes were grouped together to form preliminary themes. This process involved collating codes that shared commonalities or addressed similar aspects of young adults' perceptions of adulthood and subliminal messaging in cartoons.
- e. **Review and Refinement:** The identified themes were reviewed and refined through an iterative process. This entailed revisiting the data to ensure the themes accurately reflected the content and context of participants' responses. Themes were adjusted, merged, or split as necessary to enhance their clarity and representativeness.
- f. **Interpretation and Documentation:** Each theme was interpreted in the context of the study's research objectives. The interpretations were documented to provide a narrative understanding of the themes and their relevance to the research questions.
- g. **Data Verification:** To enhance the reliability and rigor of the analysis, data verification techniques, such as peer debriefing and member checking, were employed. This involved seeking feedback from colleagues and participants to validate the identified themes and interpretations.

- h. Report Writing: Finally, the findings were synthesised and reported, with thematic quotes from participants included to illustrate and support the identified themes. The analysis aimed to capture the depth and diversity of young adults' perceptions of adulthood shaped by subliminal messages in cartoons, offering a comprehensive understanding of the study's central focus.

Overall, this systematic data analysis process ensured that the large quantities of qualitative data obtained were rigorously examined and transformed into meaningful themes, contributing to the study's overall depth and quality of findings.

4. RESULTS AND DISCUSSION

4.1. Perceptions of adulthood through subliminal messaging in selected television cartoon shows questionnaire results.

The current study sought to explore young adults' perceptions of adulthood through subliminal messaging in selected cartoon shows. The study utilised a qualitative questionnaire as the primary method of data collection, and thematic analysis was employed to interpret the data.

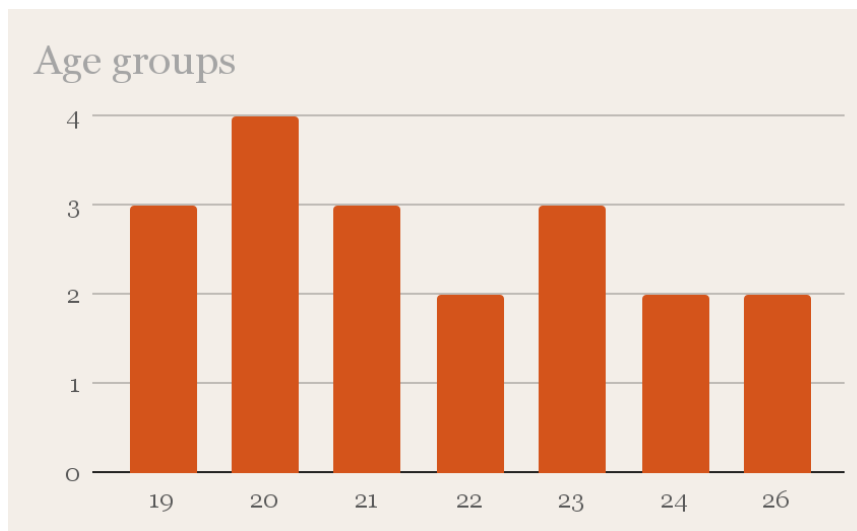


Figure 4-1: Age statistics of participants.

The data was collected from a sample pool of $n = 20$ participants aged 18 - 30 years. As illustrated in Figure 4-1, the highest age group of participants within the questionnaire is the 20-year-old age group ($n = 4$ respondents), followed by 19, 21 and 23 age groups ($n = 3$ respondents each), and lastly, 22, 24 and 26-year-old age groups ($n = 2$ respondents each).

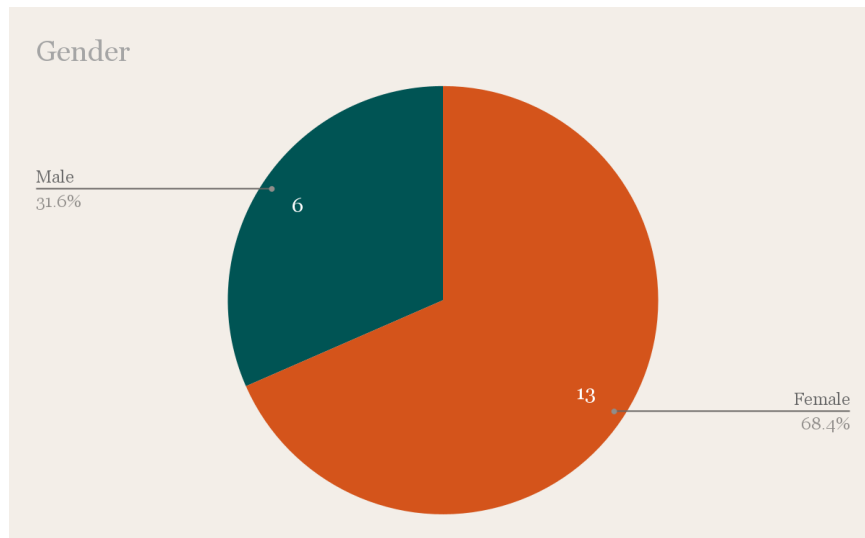


Figure 4-2: Gender statistics of participants.

In Figure 4-2, the statistics of female participants in the questionnaire were much higher than those of male participants, with female participants statistics at 68.4% (n = 13) and in comparison, to male participants at 31.6% (n = 6).

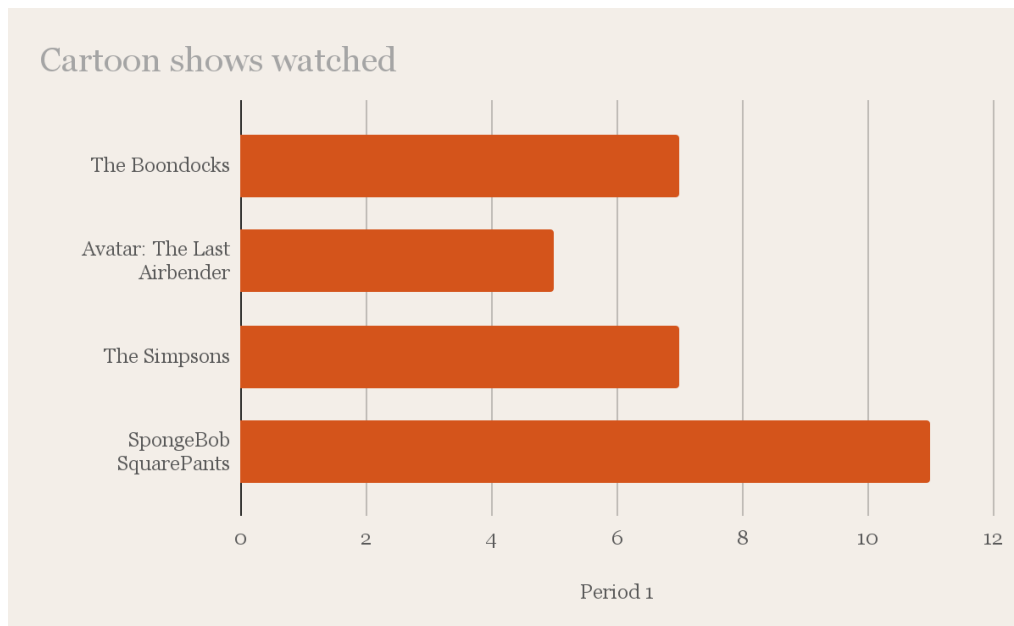


Figure 4-3. Television cartoon shows watched by participants.

Participants were then asked to indicate which television cartoon shows they’ve watched within the past year, between *SpongeBob SquarePants*, *The Boondocks*, *Avatar: The Last Airbender*, and *The Simpsons*. According to Figure 4-3, *SpongeBob SquarePants* opted to be the most watched cartoon television show amongst participants with n = 11 respondents, followed by both *The Simpsons* and *The Boondocks* with n = 7 respondents, and lastly, *Avatar: The Last Airbender* with n = 5 respondents.

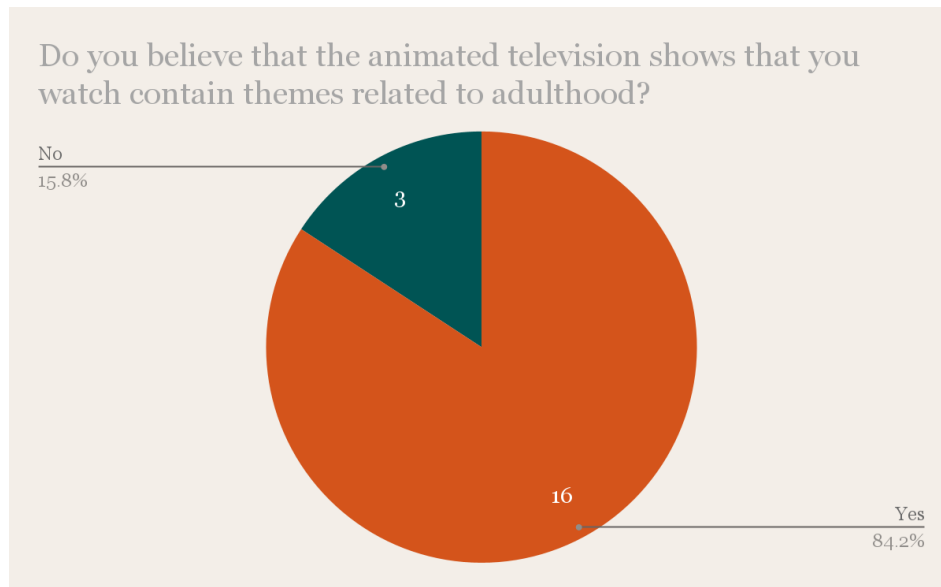


Figure 4-4. Participants' belief that television cartoon shows contain themes related to adulthood

In Figure 4-4, participants were asked to state whether they agreed or disagreed with whether the television cartoon shows they indicated watching contained themes related to adulthood. 84.2% (n = 16) of the participants agreed to notice subliminal themes and messages appearing, whereas 15.8% (n = 3) disagreed that cartoons had subliminal themes or messages.

Participants were later asked to discuss or give examples of the subliminal messages they had noticed in the shows they watched, which will be further grouped into themes in the next section.

4.2. Themes

The thematic analysis of the data collected through the qualitative questionnaire identified several themes related to young adults' perceptions of adulthood through subliminal messages in selected television cartoon shows. The study aimed to explore how young adults perceive adulthood and how subliminal messages influence these perceptions. Several key themes were identified and discussed below:

a) Maturity

This theme is mentioned several times throughout the data, as many participants associated adulthood with maturity, which could include characteristics such as sound-mindedness and responsibility.

Participant quote:

- *“Although I'm not a big TV fan based on the few shows I have watched, I believe the subliminal messages behind some of the TV shows have influenced my perception to become financially responsible, practice being emotionally stable, and improve my time-management skills as a young adult.”*

b) Responsibility

Participants noted that the portrayal of adult responsibilities in television cartoons is often shown in a negative light or in a burdensome way, such as taking care of children, having a job, or paying bills. This illustrates that cartoons send out the message that being an adult means giving up on fun and freedom.

Participant quote:

- *“Adulthood is not about enjoying life. Having a little enjoyment here and there occasionally is all that counts.”*

c) Gender role portrayal

Several participants noted the subliminal messages in television cartoons that reinforce traditional gender role stereotypes. Female characters, specifically mothers, were depicted as caregivers and nurturers, whereas male characters, specifically fathers, were depicted as irresponsible or not present in the livelihoods of their children.

Participant quote:

- *“It is that mothers are more caring than fathers, and it is rare for a father to be there for his child also mother's love supersedes anything in this universe.”*

d) Relationships

Participants also noticed subliminal messages in cartoons about relationships, this being either friendship, romantic relationships, or family. Illustrating that the only way to have a long fulfilling life as an adult is to form valuable relationships with those around them.

Participant quote:

- *“I've learned keeping people who have your best interests at heart close is always important.”*

e) Morality

o Consequences of actions:

Participants noted that cartoons often depict characters facing consequences for their actions. This can reinforce the idea that adulthood involves taking responsibility for one's actions and dealing with the consequences that come with them.

Participant quote:

- *“I am taught that everything I do in life has consequences and that I should be able to take responsibility for whatever consequences.”*

o *Good vs. Evil:*

Many participants highlighted that cartoons have clear distinctions between good and evil characters. This can reinforce the idea that adulthood involves making moral judgments about right and wrong and taking action against those who are doing harm.

Participant quotes:

- *“Good always prevails over bad.”*
- *“I watch Anime. The one I watch teaches one about the balance of good and bad, and how one needs the other for the world to function.”*

f) Life challenges

o *Personal Growth*

Participants have noted that the subliminal messages conveyed through television cartoons suggest that adulthood involves overcoming obstacles, learning to cope with life's difficulties overall, and learning to become wholesome with yourself.

Participant quotes:

- *“In life as an adult, we go through different stages - we could form new relationships just to end them again, be confronted by who we are versus what the world wants us to be, and also face challenges to be the best version of ourselves.”*
- *“In a way, they do help me understand certain things clearly about life and give clarity to certain struggles in life in a colourful way.”*
- *“For example, in Avatar: The Last Airbender, we see the main character Aang go through different trials and tests to ultimately get him ready to face Fire Lord Aizen. With these tests that Aang goes through, we see him change from the naive boy he was at the beginning to a wise and strong individual.”*

g) Independence

The theme of independence emerged from young adults' perceptions of adulthood through subliminal messages in television cartoons because many participants noticed that characters who were independent were often portrayed as successful and happy, while those who relied on others or lacked independence were often portrayed as unsuccessful and unhappy.

Participant quote:

- *“In television shows, we always see adults always working to achieve a greater goal. So in my mind, the essence of being an adult is to always be productive to get what you want in life.”*

h) Unrealistic expectations

Participants highlighted that many cartoons portray adult life in a highly idealised and unrealistic way. Characters may have exciting and glamorous jobs, live in beautiful homes, and enjoy perfect relationships. These subliminal messages can create unrealistic expectations for young adults about what adult life should be like.

Participant quote:

- *“The media often portray adults as having it all together. For instance, they have successful careers, happy relationships, and perfect homes. This can create unrealistic expectations for what adulthood should look like and can make us feel like we are falling short if we don't measure up.”*

Thematic analysis of the data revealed several themes related to young adults' perceptions of adulthood through subliminal messaging in television cartoons. These themes highlight the complexity of young adults' perceptions of adulthood and the potential impact of subliminal messages in cartoons on these perceptions.

4.3 Discussion

The findings of this study hold significant relevance to the cultivation theory, a communication theory that posits that media has a cumulative, long-term influence on viewers' perceptions of the world, shaping their beliefs and attitudes over time. These findings closely align with the principles of the cultivation theory, revealing how subliminal messages in selected television cartoons can cultivate specific beliefs and attitudes about adulthood among young adults.

For instance, the theme of “Responsibility” underscores how cartoons often depict adult responsibilities negatively or as burdensome, contributing to the cultivation of a belief system associating adulthood with constraints and limitations. Similarly, the theme of “Gender Role Portrayal” highlights how traditional stereotypes are reinforced in cartoons, potentially cultivating gender-related beliefs, and attitudes among young viewers.

The theme of “Life Challenges” and “Personal Growth” mirrors the cultivation theory's assertion that media can shape perceptions of life difficulties and the importance of personal development. Repeated exposure to characters overcoming challenges may cultivate the belief that adulthood entails resilience and continuous self-improvement.

Furthermore, the theme of “Independence” resonates with the cultivation theory's prediction that media can cultivate beliefs about individualism and self-reliance. The portrayal of independent

characters as successful and content can contribute to the cultivation of the idea that independence is vital for adult achievement.

However, it's crucial to acknowledge. The theme of "Unrealistic Expectations", which reveals that cartoons sometimes convey an idealised and unrealistic depiction of adult life. This portrayal may cultivate unrealistic beliefs about the perfection and ease of adulthood, which may not align with real-life experiences.

In summary, the study's findings demonstrate how subliminal messages in television cartoons can shape young adults' perceptions of adulthood, and these perceptions are in line with the cultivation theory's predictions. These themes underscore the theory's relevance in understanding how media influences beliefs and attitudes about adulthood, emphasising the need for responsible media messaging to ensure a balanced and realistic portrayal of this life stage.

5. CONCLUSION

In conclusion, using a qualitative questionnaire and thematic analysis, this study explored young adults' perceptions of adulthood through subliminal messaging in cartoon television shows. The findings revealed that young adults perceive adulthood as being characterised by maturity, responsibility, independence, unrealistic expectations, life challenges, morality, gender roles, and the value of relationships. These themes were consistent with traditional societal expectations of what it means to be an adult, but they were also influenced by the subliminal messages presented in the selected cartoon television shows. The themes suggest that cartoon television shows can potentially shape young adults' perceptions of adulthood and may play a role in their development. Further research is needed to explore the extent of this influence and how it may impact young adults' lives. Nonetheless, the findings of this study provide valuable insights into how subliminal messaging in cartoon television shows may contribute to the formation of young adults' perceptions of adulthood.

REFERENCES

- Arnett, J. J. (2000). A Theory of Development Erikson, EH (1989). *Identitas dan Siklus*, 469-480.
- Aspers, P. & Corte, U. (2019). What is Qualitative in Qualitative Research. *Qual Sociol* 42, 139–160 <https://doi.org/10.1007/s11133-019-9413-7>
- Atabey, D. (2021). Cartoons: A Profound Outlook within the Scope of Children and Media. *International Journal of Research in Education and Science*, 7(1), 93-111.
- Booker, M. K. (2010). Disney, Pixar, and the hidden messages of children's films. ABC-CLIO.
- Borovac, Z., S., & Zekan, I. (2022). SUBLIMINAL MESSAGES IN ADVERTISING: DO THEY REALLY WORK? In DIEM: *Dubrovnik International Economic Meeting* 7(1), 102-113. Sveučilište u Dubrovniku.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.

-
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. London, England: SAGE
- Dixon, G. N., & Foster, K. (2014). The effects of subliminal suggestion on academic performance. *Journal of Articles in Support of the Null Hypothesis*, 11(2), 1-14.
- Eckerdal, R. and Hagström, C. (2017). Qualitative questionnaires as a method for information studies research. *Information Research*, 22(1), 1639
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1986). Living with television: The dynamics of the cultivation process. *Perspectives on media effects*, 1986, 17-40.
- Gerbner, G. (1972). Violence in TV drama: Trends and symbolic functions. *Television and Sound Behaviour: Reports and Papers*, 1-5.
- Gerbner, G. (1998). Cultivation theory. In M. B. Salwen & D. W. Stacks (Eds.), *An integrated approach to communication theory and research* (pp. 155-170). Routledge.
- Gerbner, G. (1998). Cultivation Analysis: An overview. *Mass Communication and Society* 1, 174-194.
- Herbert, S. (2012). 'A taut rubber band: theory and empirics in qualitative geographic research', In D. DeLyser, S. Herbert, S. Aitken, M. Crang and L. McDowell, eds, *The Sage Handbook of Qualitative Geography*, Los Angeles: Sage
- Karremans, J. C., Stroebe, W., & Claus, J. (2006). Beyond Vicary's fantasies: The impact of subliminal priming and brand choice. *Journal of experimental social psychology*, 42(6), 792-798.
- Kristina M. S. & Matthew L. S. (2019) What is a theme? Teaching thematic analysis in qualitative communication research methods. *Communication Teacher*, 33(2), 117-121, DOI: 10.1080/17404622.2018.1536794
- Lemish, D. (2007). *Children and television: A global perspective*. Blackwell publishing.
- Madigan, S., Browne, D., Racine, N., Mori, C. & Tough S. (2019). Association Between Screen Time and Children's Performance on a Developmental Screening Test. *JAMA Pediatr*, 173(3), 244-250. doi:10.1001/jamapediatrics.2018.5056
- McGuirk, P. M. & O'Neill, P. (2016). Using questionnaires in qualitative human geography. In I. Hay (Eds.), *Qualitative Research Methods in Human Geography* (pp. 246-273). Don Mills, Canada: Oxford University Press.
- Morgan, M., & Shanahan, J. (2010). The state of cultivation. *Journal of broadcasting & electronic media*, 54(2), 337-355.
- Morrow, V., 2008. Ethical dilemmas in research with children and young people about their social environments. *Children's geographies*, 6(1).49-61.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*, 16(1). <https://doi.org/10.1177/1609406917733847>
-

-
- Palfrey, J. G., Gasser, U., Simun, M., & Barnes, R. (2009). Youth, creativity, and copyright in the digital age. Berkman Center Research Publication, (2009-05).
- Robinson, T., Callister, M., Magoffin, D., & Moore, J. (2007). The portrayal of older characters in Disney animated films. *Journal of aging studies*, 21(3), 203-213.
- Robinson, T., Callister, M., Magoffin, D., & Moore, J. (2007). The portrayal of older characters in Disney animated films. *Journal of aging studies*, 21(3), 203-213.
- Shrum, L. J., Wyer Jr, R. S., & O'Guinn, T. C. (1998). The effects of television consumption on social perceptions: The use of priming procedures to investigate psychological processes. *Journal of Consumer Research*, 24(4), 447-458.
- Shrum, L. J. (2017). Cultivation Theory: Effects and Underlying Processes. In: Patrick Rössler, Cynthia A. Hoffner & Zoonen, L. V. (eds.) *The International Encyclopedia of Media Effects*. France: John Wiley & Sons, Inc.
- Smith, K. M. (2018). The Educated Hustlers and Divas: How Black Youth Use Black Television as a Tool to Communicate While in School.
- Stockdale, L., & Coyne, S. M. (2018). Video game addiction in emerging adulthood: Cross-sectional evidence of pathology in video game addicts as compared to matched healthy controls. *Journal of affective disorders*, 225, 265-272.
- Sundler, A. J., Lindberg, E., Nilsson, C., & Palmér, L. (2019). Qualitative thematic analysis based on descriptive phenomenology. *Nursing Open*. <https://doi.org/10.1002/nop2.275>
- Vaismoradi, M., Jones, J., Turunen, H. & Snelgrove, S. (2016). Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice*, 6(5), 100-110 <http://dx.doi.org/10.5430/jnep.v6n5p100>
- Vaterlaus, J. M., Spruance, L. A., Frantz, K., & Kruger, J. S. (2019). College student television binge watching: Conceptualization, gratifications, and perceived consequences. *The Social Science Journal*, 56(4), 470-479.
- Vinney, C. (2019). Cultivation Theory. <https://www.thoughtco.com/cultivation-theory-definition-4588455> (Date of access: 19 Apr. 2022).
- Voelkle, M. C., Ebner, N. C., Lindenberger, U., & Riediger, M. (2012). Let me guess how old you are: effects of age, gender, and facial expression on perceptions of age. *Psychology and aging*, 27(2), 265.
- Zdravkovska, S. D., Haque, S., & Szydłak, W. (2021). Subliminal Messages-Motivating Learners Using Visual Cues: An Experimental Study. *Balkan Social Science Review*, 18, 367-385.

SSIRC 2023-129**SKILLS DEVELOPMENT USING CASE STUDY TEACHING AND LEARNING METHOD: A CASE OF A STRATEGIC MANAGEMENT COURSE AT A UNIVERSITY IN SOUTH AFRICA****M.K. Kimanzi**

Central University of Technology, South Africa.

ABSTRACT

Teaching and learning using case studies is a popular method applied in Business Management disciplines. The case study method is an active learning method that requires participation and involvement from the students in the classroom and is intended to develop skills to prepare business management students for their managerial roles. This study was intended to establish the development of skills using case studies in enhancing teaching and learning and the influence of personal characteristics on analysing case study problems based on student performances. Using a strategic management course at a university in South Africa, a quantitative approach was adopted to gather information using questionnaires. The results were received from 53 students enrolled in the course. The data was analysed and presented using descriptive statistics and regression analysis. Results indicated that the use of a case study mostly enhances analytical skills and that there is a positive relationship between working experience and student performance. It is recommended that other methods of teaching case studies be integrated, such as simulations or work-integrated learning, to be offered in these courses for students to be able to gain more practical experience.

KEYWORDS: Case study, management, teaching and learning, skills development.

1. INTRODUCTION AND BACKGROUND

The case study method of teaching and learning is an active learning method that requires participation and involvement from the students, unlike the traditional lecture method (Healy & McCutcheon, 2010). It is often used in management education in various courses to stimulate students' thinking and application abilities to real-life scenarios and problem-solving from the management point of view (Hodgson et al. 2014). Several authors have emphasized the need for teachers to use teaching methods that develop students' generic skills (Virtanen & Tynjälä, 2018, Ballantine, 2004, Evans, 2016, Tuononen et al., 2022). These generic skills are transferable or soft skills, which include communication skills, written skills, interpersonal skills, critical, problem-solving, judgment, and analytical skills, among others, and are transferable across disciplines (Ballantine, 2004). Management students need these generic skills beyond theoretical knowledge to carry out their jobs effectively in the workplace. Generic skills are essential in helping graduates deal with the complexities of the modern business environment when they step out into the world of work (Bayona et al., 2017; Farashahi et al., 2018; Mahdi et al., 2020). There is therefore general agreement that one of the best techniques for developing generic skills in management courses is the use of case studies and that teaching using case studies is a powerful methodology for management classes, as it makes it possible to establish a link between the learning environment

and the real world of organizations. This inherently leads to the development of generic skills in the learning process (Thompson & Dass, 2000; Minniti et al., 2017).

Mesny (2013) argues that the case method stands as a major pedagogy in management education. Literature has reported a wide variety of positive effects of the case study method on various educational outcomes. These include the improvement of higher thinking skills, the learning of core competencies, the improvement of oral communication (Noblitt et al., 2010), the motivation to learn information and apply the knowledge learned to unknown problems (Bonney, 2015), the ability to ask questions and diagnose situations, and the ability to integrate theory with practice and decision-making (Popil, 2011).

The strategic management course is meant to train students to make top-level decisions at the workplace. The learning content includes the strategic planning process, from planning to the development and implementation of the plans. Each topic therefore contains theoretical content and case studies relevant to the theory. These case studies are therefore used in teaching and learning as well as for assessment purposes. For students who have been exposed only to traditional teaching methods, this calls for a major change in their approach to learning (Trejo-Pech & White, 2017).

Research objectives

The main aim of this study was to establish the skills that were honed through the use of the case study method of teaching and learning in a strategic management course at a university in South Africa. To achieve this, the following objectives are formulated:

- To establish the skills that were enhanced using case studies in a strategic management course,
- To find out the relationship between personal characteristics and student performances using the case study method of assessment

2. LITERATURE REVIEW

2.1 Case Study Method

Typically, a case study refers to a detailed depiction of an actual scenario involving an individual or group within an organization, often involving a challenge, decision, opportunity, or problem (Healy & McCutcheon, 2010). According to Kaddouro (2011), the case study method was first introduced at Harvard University in the early 1870s, and consequently, it has been used at the university since then, and then the application of the method was adopted in other learning institutions (Kaddouro, 2011). The case study method is done in three stages: individual preparation, small group discussion, and large group or class discussion (Leenders et al., 2001). These stages are illustrated below.

Figure 1: Teacher and student roles in a regular case class

| When | Teacher | Student or Participant |
|---------------------|---|---|
| Before Class | Assigns case and often readings | Receives case and assignment |
| | Prepares for class | Prepares individually |
| | May consult colleagues | Discusses case in small group |
| During Class | Deals with readings | Raises questions regarding readings |
| | Leads case discussion | Participates in discussion |
| After Class | Evaluates and records student participation | Compares personal analysis with colleagues' analysis. |
| | Evaluates materials and updates teaching note | Reviews class discussion for major concepts learned. |

Source: Leenders, M. R., Mauffette-Leenders, L. A., & Erskine, J. A. (2001). *Writing cases* (4th ed.)

The processes followed in case study teaching and learning are as above. This is usually done in class and consequently in groups to prepare the students for assessments, which may not involve the teacher.

Mahdi and Almuslamani (2020) argue that case studies do not provide straightforward or direct solutions; instead, they stimulate students' critical thinking abilities, demonstrate professional thought processes, and encourage the application of theoretical concepts to address practical problems. Additionally, the case study approach possesses distinctive characteristics, including its foundation in real-life situations, the provision of relevant data and documents for analysis, and the presentation of open-ended questions or problems that require potential solutions (Evans, 2016). Case studies can be assigned to individuals or teams, but they are typically tackled collaboratively in groups, allowing for collective brainstorming of solutions to the problems or questions posed (Johnson et al., 2021). These cases vary in type, spanning from uncomplicated situations to more challenging and complex scenarios. Engaging in case-based learning facilitates students leveraging their existing knowledge, merging different knowledge components, and contemplating how to apply that knowledge in future situations (Vora & Shah, 2015).

2.2 Benefits of Case Study Method

There are several specific benefits associated with employing the case study approach, as highlighted by various research studies. The utilization of the case study method offers multiple advantages, as asserted by Gooding et al. (2013). Herreid & Schiller (2013) further emphasize that case studies provide students with opportunities to engage in discussions, analyze practical problem-solving strategies, apply theoretical knowledge in real-world scenarios, and enhance learning through active participation and teaching others. Studies carried out by several researchers have supported these arguments. A study carried out at a university in South Africa revealed that the case study teaching and learning method was beneficial to students of supply chain management course learning skills, and hence that it increased their chances of employment

(Naude & Derera, 2014). Another study conducted at a community college in the USA found that the use of the case study method is significantly more effective than other methods of content delivery in increasing performance on examination questions in a biology course (Bonney, 2015). Additionally, a study conducted in Bahrain on students enrolled in a leadership and group dynamics course found that case studies enhanced critical thinking skills (Mahdi & Almuslamani, 2020). In their study, Farashahi and Tajeddin (2018) compared three teaching methods: simulation, case study, and lecture methods, with a group of MBA students. Findings indicated that case study and simulation methods were perceived as similar when it comes to problem-solving skills as opposed to the lecture method. Despite all these benefits associated with the case study method, there are few studies that attribute the skills learned to various individual characteristics such as age, years of working experience, and employment status.

3. METHODOLOGY

3.1 Research design

The study followed a quantitative research design. This design was used to be able to quantify the findings of the study and to use statistical calculations to determine relationships. The study also consisted of aspects of statistics such as average test marks obtained from the case study assessments and other demographic statistics such as age, years of work experience, and type of employment. Therefore, the quantitative design was suitable for this.

3.2 Sampling method

Sampling refers to the process of selecting a subset of the units of observation from the population (Ghauri et al., 2020). Although there are many types of sampling techniques, this study followed the simple random sampling method, which is based on choosing respondents in no order. Due to the small size of the class, with a population of 61 students, a sample size of 53 was calculated using the Raosoft sample size calculator with a margin of error of 5% and a confidence level of 95%.

3.3 Research instrument

The study used a questionnaire to collect data from the respondents. The questionnaire consisted of two main sections: Section A, a demographic section consisting of 4 questions, and Section B, which consisted of 25 questions, covering the main areas of the study. The questions are based on a 4-point Likert scale ranging from strongly disagree, disagree, agree, and strongly agree. These were used to measure the respondents' attitudes by asking the extent to which they agreed or disagreed with a particular question or statement about the use of the case study and skills gained.

3.4 Data collection

Self-administered questionnaires were distributed to strategic management course students at the end of the semester to get composite responses. This was after the application of seven major case studies covering seven different topics in the course during the semester. Students were given a week to complete the questionnaires, after which they were collected as per individual preferences. A total of 60 questionnaires were distributed, and responses were received from 53 respondents.

3.5 Data analysis

Data analysis is the process of describing and presenting data obtained from a research project. Descriptive statistics using measures of central tendencies and measures of dispersion were also included in the analysis (mean and standard deviation). The mean was used to calculate the arithmetic average. The mean is preferred because it is the most precise as it considers the magnitude of all scores (Johnson & Christensen, 2014). The standard deviation was used to measure how far the numbers tend to vary from the mean. Cross-tabulation was used in organizing data by groups, thereby facilitating comparisons between groups. To test for relationships between different variables, regression analysis was used.

4. RESULTS AND DISCUSSION

This section discusses the results of the study.

4.1: Demographic information

TABLE 1: Gender

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------|-----------|---------|---------------|--------------------|
| Male | 17 | 32.1 | 32.1 | 32.1 |
| Female | 36 | 67.9 | 67.9 | 100.0 |
| Total | 53 | 100.0 | 100.0 | |

According to Table 1, there were more females than males who were registered in the advanced strategic management course.

TABLE 2: Age

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------------|-----------|---------|---------------|--------------------|
| Between 21-25 years | 22 | 41.5 | 41.5 | 41.5 |
| Between 26-30 years | 17 | 32.1 | 32.1 | 73.6 |
| Above 30 years | 14 | 26.4 | 26.4 | 100.0 |
| Total | 53 | 100.0 | 100.0 | |

Table 2 shows that most of the respondents are between the ages of 21-25. Surprisingly there was nobody below the age of 20.

Table 3: Employment status

| Occupation | | | | |
|-------------------|-----------|---------|---------------|--------------------|
| | Frequency | Percent | Valid Percent | Cumulative Percent |
| Employed | 17 | 32.1 | 32.1 | 32.1 |
| Unemployed | 36 | 67.9 | 67.9 | 100.0 |
| Total | 53 | 100.0 | 100.0 | |

Table 3 shows that most of the students enrolled in the advanced strategic management course are unemployed.

Table 4: Working experience.

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------|-----------|---------|---------------|--------------------|
| No experience | 24 | 45.3 | 45.3 | 45.3 |
| between 1-5 years | 14 | 26.4 | 26.4 | 71.7 |
| Between 6-10 years | 7 | 13.2 | 13.2 | 84.9 |
| More than 10 years | 8 | 15.1 | 15.1 | 100.0 |
| Total | 53 | 100.0 | 100.0 | |

Table 4 shows that most of the respondents do have working experience with a cumulative percentage of 55%. 45% of the respondents do not have any working experience.

4.2: Results from the study

4.2.1 Skills developed using the Case Method

Table 5: Generic skills

| | N | Mean | Std. Dev |
|-------------------|----|--------|----------|
| Analytical skills | 53 | 3.5212 | .34991 |
| Affective skills | 53 | 3.3019 | .40567 |
| Cognitive skills | 53 | 3.2985 | .29532 |

Table 5 above shows that analytical skills are more developed than affective and cognitive skills.

Table 6: Cognitive skills

| Cognitive skills | N | Mean | Std dev |
|---|----|------|---------|
| Think critically | 53 | 3.68 | .471 |
| Conceptual thinking | 53 | 3.55 | .503 |
| Consider multiple perspectives | 53 | 3.53 | .504 |
| Distinguish between facts and opinions | 53 | 3.51 | .541 |
| Improve judgement skills | 53 | 3.42 | .497 |
| Gain insight into the complexity of 'real-world business situations | 53 | 3.38 | .527 |
| Deal with situations of uncertainty and ambiguity | 53 | 3.36 | .558 |
| Enhance understanding of phenomena studied | 53 | 3.34 | .445 |
| Apply knowledge to new and unique circumstances | 53 | 3.32 | .510 |
| Enhance understanding of the environment within which strategic management problems exist | 53 | 3.26 | .478 |
| Relate theory to practice | 53 | 3.23 | .542 |

Table 6 above indicates that the use of case studies in strategic management courses helps develop more critical thinking while the least aspect that was developed was the skill of relating theory to practice.

Table 7: Affective skills

| Affective skills | N | Mean | Std dev |
|-------------------------------------|----|------|---------|
| More responsibility for my learning | 53 | 3.68 | .510 |
| Personal motivation | 53 | 3.42 | .570 |

| Affective skills | N | Mean | Std dev |
|---|----|------|---------|
| Involvement in the learning process | 53 | 3.40 | .494 |
| Enhance understanding of SM problems | 53 | 3.34 | .478 |
| Increased confidence | 53 | 3.28 | .662 |
| Increased interest | 53 | 3.26 | .711 |
| Enhanced participation in business seminars | 53 | 3.15 | .770 |

Results have indicated that the use of case studies in strategic management courses enhances the ability of students to take more responsibility for their learning, while the least aspect enhanced is the participation in business seminars.

Table 8: Analytical skills development

| Analytical skills | N | Mean | Std dev |
|------------------------|----|------|---------|
| Problem-solving skills | 53 | 3.62 | .489 |
| Communication skills | 53 | 3.60 | .494 |
| Written skills | 53 | 3.57 | .537 |
| Questioning skills | 53 | 3.55 | .539 |
| Analytical skills | 53 | 3.51 | .505 |
| Interpretation skills | 53 | 3.49 | .541 |
| Library skills | 53 | 3.21 | .661 |

According to Table 8, problem-solving skills were most enhanced using case studies, while library skills were the least enhanced.

4.2.1 To establish the relationship between case study performance and student characteristics.

Table 9: Cross tabulation

| Benefits of case studies within advanced strategic management course | Group A- Employed | Group B- Unemployed | Z | Sig. (P) |
|--|----------------------|------------------------|--------|----------|
| Relate theory to practice | 32.74 | 24.29 | -2.373 | .018 |
| Gain insight on real world | 32.29 | 24.50 | -1.996 | .046 |

According to Table 9, the employed group of respondents scored higher means in their assessments than the unemployed group of students in two areas. Relating theory to practice and gaining insights into the real world.

Table 10: ANOVA

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|----|-------------|-------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 78.415 | 4 | 19.604 | 4.570 | .003 ^b |
| | Residual | 205.887 | 48 | 4.289 | | |
| | Total | 284.302 | 52 | | | |

a. Dependent Variable: Test scores

b. Predictors: (Constant), Years of working experience, Gender, Age, Occupation

ANOVA test was used to analyse the difference between the means of more than two groups. According to Table 10, the p-value is 0.003. this is statistically significant as it is less than 0.05.

This therefore indicates that the group of independent variables gender, age, employment status and years of working experience can be used to reliably predict the dependent variable-test scores.

TABLE 11: regression analysis

| Coefficients ^a | | Unstandardized Coefficients | | Standardized Coefficients | t | 95.0% Confidence Interval for B | | |
|---------------------------|-----------------------------|-----------------------------|------------|---------------------------|--------|---------------------------------|-------------|-------------|
| Model | | B | Std. Error | Beta | | Sig. | Lower bound | Upper bound |
| | (Constant) | 11.562 | 3.434 | | 3.367 | .002 | 4.658 | 18.465 |
| | Gender | -1.516 | .625 | -.305 | -2.424 | .019 | -2.773 | -.259 |
| | Age | .084 | .529 | .030 | .159 | .874 | -.980 | 1.149 |
| | Occupation | 2.947 | 1.171 | .594 | 2.517 | .015 | .593 | 5.302 |
| | Years of working experience | 1.544 | .482 | .727 | 3.204 | .002 | .575 | 2.512 |

a. Dependent Variable: Test scores

The regression equation for predicting the dependent variable from the independent variable.

$$Y = \beta_0 + \beta_1*1 + \beta_2*2 + \beta_3*3 + \beta_4*4 + \beta_e$$

Expressed in terms of the variables used in this study. The regression equation is

$$\text{Test scores predicted} = 11.562 + -1.516 (\text{gender}) + 0.84 (\text{age}) + 2.9479 (\text{employment status}) + 1.544 (\text{years of working experience}).$$

These estimates indicate the increase in test scores that would be predicted by a 1-unit increase in the predictor. For every increase of 1 point in gender, there is a decrease of 1.516 in the test scores. For every 1-unit increase in employment status, there is an increase of 2.947 units in test scores. For every 1-unit increase in years of working experience, there is a 1.544 increase in predicted test scores. The co-efficient of gender for the sample is negative and significant at 0.019. This is an indication that females are less knowledgeable than male students, as they reduce the test scores by 1.5 points. The co-efficient of employment status for the sample is positive and significant at 0.015. This is an indication that employed students are more favoured as they increase their test scores by 2.947 points. The co-efficient of years of working experience for the sample is positive and significant at 0.002. This is an indication that students with more working experience scored highly employed, as they increased their test scores by 2.947 points.

4.3 Discussion of the results

The study aimed to find out the skills developed using the case study method. The study discovered that analytical skills are more developed than affective and cognitive skills. This concurs with several studies (Mahdi & Almuslamani, 2020; Herried & Schiller, 2013). The argument is that analytical skills are important, especially in training managers of organizations to make key decisions. The skills are important to students undertaking the strategic management course, as it is structured to assist students in becoming critical thinkers and making strategic plans for their organizations. Additionally, problem-solving skills emerged as the skills developed most through

the cluster of analytical skills. This is attributed to the fact that these skills are needed by students to transfer their theoretical skills to practice in the real world (Farashi et al., 2018). Additionally, studies have indicated that problem-solving skills enhance creativity, which leads to innovativeness, a skill that is an enabler for change in this era (Bonney, 2015).

Another observation was that the skill of communication was also enhanced using case studies in teaching and learning. According to Minniti et al. (2017), these are skills that prepare students to carry out their jobs effectively at their workplaces. Communication skills are important as they assist managers in effectively conveying key information to their subordinates on aspects such as the strategic plans of the organization. Managers are also able to communicate with their employees, motivating them to participate in organizational processes where innovative ideas can be born to aid in problem-solving. These skills are therefore interrelated.

The study also aimed to identify if there were any relationships between different groups of students and their academic performance in the subject. The study found that students who are employed performed higher than those who are unemployed in two main areas: relating theory to practice and gaining insights into the real world. Evans (2016) argues that case-based assessments provide a closer fit to workplace reality, which in turn enhances learning. In addition, studies have shown that there is a positive relationship between academic performance and personality traits and work experience (Bayona & Castaneda, 2017). The fact that the margin of performance difference is minimal indicates that the case-based learning method is effective in preparing strategic management students for the future of work and employability, as evidenced by Naude & Derera (2014).

5. CONCLUSIONS

The study aimed at establishing the skills that were enhanced using case studies in a strategic management course. The study found that analytical skills were more enhanced, as opposed to affective and cognitive skills. In the analytical skills, problem-solving skills were most enhanced. Additionally, critical thinking skills were enhanced as opposed to relating theory to practice skills.

The study also aimed to determine the relationship between personal characteristics and student performances using the case study method of assessment. The study found that there are significant relationships between gender, age, employment status years of working experience and assessment performance. Firstly, the employed group of respondents scored higher means in their assessments than the unemployed group of students in two areas. Relating theory to practice and gaining insights into the real world. Additionally, employed students and students with more working experience scored higher on the tests than the unemployed students and lastly, female students scored less than their male counterparts in tests.

6. RECOMMENDATIONS

It is recommended that other methods of teaching case studies be integrated, such as real-life simulations, especially with the advent of artificial intelligence, or work-integrated learning to be offered in these courses, for students to be able to gain more practical experience. Further studies are to be conducted as to why females scored less than males in the course.

REFERENCES

- Ballantine, J. A., & Larres, P. M. (2004). A critical analysis of students' perceptions of the usefulness of the case study method in an advanced management accounting module: the impact of relevant work experience. *Accounting Education, 13*(2), 171-189.
- Bayona, J. A., & Castañeda, D. I. (2017). Influence of personality and motivation on case method teaching. *The International Journal of Management Education, 15*(3), 409-428.
- Bonney, K. M. (2015). Case study teaching method improves student performance and perceptions of learning gains. *Journal of microbiology & biology education, 16*(1), 21-28.
- Evans, C. (2016). Re-thinking case-based assessments in business management education. *The international journal of management education, 14*(2), 161-166.
- Farashahi, M., & Tajeddin, M. (2018). Effectiveness of teaching methods in business education: A comparison study on the learning outcomes of lectures, case studies and simulations. *The international journal of Management Education, 16*(1), 131-142.
- Ghuri, P., Grønhaug, K., & Strange, R. (2020). *Research methods in business studies*. Cambridge University Press.
- Gooding, H. C., Ziniel, S., Touloumtzis, C., Pitts, S., Goncalves, A., Emans, J., & Burke, P. (2016). Case-based teaching for interprofessional postgraduate trainees in adolescent health. *Journal of Adolescent Health, 58*(5), 567-572.
- Healy, M., & McCutcheon, M. (2010). Teaching with case studies: an empirical investigation of accounting lecturers' experiences. *Accounting Education: An International Journal, 19*(6)
- Herreid, C. F., & Schiller, N. A. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching, 42*(5), 62-66.
- Hodgson, Y., Brack, C., & Benson, R. (2014). Introducing case-based peer-assisted learning in a professional course. *Journal of University Teaching and Learning Practice, 11*(2), 1-15.
- Johnson, R and Christensen, L (2014). *Educational Research*. 5th Edition. Sage, California.
- Johnson, F., Leenders, M. R., & Flynn, A. E. (2021). *Purchasing and supply management*. McGraw Hill Companies, Inc.
- Kaddouro, M. A. (2011). Critical thinking skills of nursing students in lecture-based teaching and case-based learning. *International Journal for the Scholarship of Teaching and Learning, 5*(2), 1–18.
- Leenders, M. R., Mauffette-Leenders, L. A., & Erskine, J. A. (2001). *Writing cases* (4th ed.). Ivey Publishing, Richard Ivey School of Business.

-
- Mahdi, O. R., Nassar, I. A., & Almuslamani, H. A. I. (2020). The Role of Using Case Studies Method in Improving Students' Critical Thinking Skills in Higher Education. *International Journal of Higher Education*, 9(2), 297-308.
- Mauffette-Leenders, L. A., Erskine, J. A., Leenders, M. R., & University of Western Ontario. Richard Ivey School of Business (London, Ont.). (1997). *Learning with cases*. London: Richard Ivey School of Business, The University of Western Ontario.
- Mesny, A. (2013). Taking stock of the century-long utilization of the case method in management education. *Canadian Journal of Administrative Sciences*, 30(1), 56–66.
- Minniti, L. F. S., Melo Jr, J. S. M., Oliveira, R. D., & Salles, J. A. A. (2017). The use of case studies as a teaching method in Brazil. *Procedia-Social and Behavioral Sciences*, 237, 373-377.
- Naude, M., & Derera, E. (2014). Using the case study method to enhance the learning skills of supply chain management students. *Industry and Higher Education*, 28(5), 351-359.
- Noblitt, L., Vance, D. E., & Smith, M. L. D. (2010). A comparison of case study and traditional teaching methods for improvement of oral communication and critical-thinking skills. *Journal of College Science Teaching*, 39(5), 26.
- Popil, I. (2011). Promotion of critical thinking by using case studies as teaching method. *Nurse Education Today*, 31(2), 204-207.
- Sharma, D. (1998) Accounting students' learning conceptions, approaches to learning, and the influence of the learning-teaching context on approaches to learning, *Accounting Education: an International Journal* 6 (2), 125–46.
- Tompson, G. H., & Dass, P. (2000). Improving students' self-efficacy in strategic management: The relative impact of cases and simulations. *Simulation & Gaming*, 31(1), 22–41.
- Trejo-Pech, C. J., & White, S. (2017). The use of case studies in undergraduate business administration. *Revista de administração de empresas*, 57, 342-356.
- Tuononen, T., Hyytinen, H., Kleemola, K., Hailikari, T., Männikkö, I., & Toom, A. (2022,). Systematic Review of Learning Generic Skills in Higher Education—Enhancing and Impeding Factors. In *Frontiers in education* (Vol. 7, p. 885917). Frontiers.
- Virtanen, A., & Tynjälä, P. (2018). Factors explaining the learning of generic skills: a study of university students' experiences. *Teaching in Higher Education*.
- Vora, M. B., & Shah, C. J. (2015). Case-based learning in pharmacology: Moving from teaching to learning. *International Journal of Applied and Basic Medical Research*, 5(Suppl 1), S21.
-

SSIRC 2023-137**PROFESSIONAL LEARNING ACTIVITIES OF GRADE 10 MATHEMATICAL LITERACY TEACHERS DURING COVID-19 PANDEMIC: A CASE STUDY OF PIETERMARITZBURG CENTRAL CLUSTER****V. Makwara**

Durban University of Technology, South Africa

F.Q.B. Zulu

University of KwaZulu-Natal, South Africa

ABSTRACT

Various studies report that the emergence of COVID-19 pandemic in 2020 impacted on teachers' professional learning. This study illuminates the impacts of COVID-19 on teacher professional learning of Mathematical Literacy (ML) and how these teachers professionally learnt during the pandemic period. The study was located within an interpretive paradigm and adopted a qualitative case study. Semi-structured interviews were used to generate data from four Grade 10 Mathematical Literacy teachers in Pietermaritzburg Central Cluster. The results of the study revealed that the impacts of COVID-19 led the teachers to engage in collaborative learning activities through WhatsApp and online Microsoft Teams cluster meetings. WhatsApp emerged as the major tool, which offered the Grade 10 Mathematical Literacy teachers a platform to share ideas with other colleagues. However, participation in online learning activities was hampered by the lack of technological knowledge, resources, and national infrastructure. The findings showed that the teachers also learnt through reading and searching for information from Google, experimentation with different teaching methods, using trial and error online teaching methods. Based on the findings of the study, it is recommended that the Department of Education provide support and resources to enhance teachers' technological knowledge. This would help teachers stay abreast of technology and sharing ideas with other teachers, subject advisors, and stakeholders within the Department of Education.

KEYWORDS: teacher learning, teacher professional learning, teacher professional learning activities, clusters, mathematical literacy.

1. INTRODUCTION

The South African Department of Education (DoE) introduced Mathematical Literacy (ML) in 2006 as an alternative subject for learners who do not want to pursue pure Mathematics in Grade 10 to 12 (Spangenberg, 2012:1). Bansilal (2014) highlighted that ML was introduced in South Africa as a subject in the Further Education and Training (FET) band in a bid to improve the low levels of numeracy amongst the adult population. ML is the subject that uses Mathematical concepts and applies them to day-to-day activities or situations and should not be viewed as an alternative to Standard Grade Mathematics (Clark, 2012). Furthermore, Spangenberg (2012:1) defines this subject "as a specific form of academic knowledge which integrates theory, skills and

values.” In other words, ML can be viewed as a subject that stimulates learner’s thinking skills which adopts a hands-on approach in solving real life challenges of every South African citizen.

However, generally, in South Africa, ML is viewed as an inferior subject which is taken by learners who have performed badly in grade 9 or after the learners have failed Mathematics in grade 10 and 11. This is supported by Graven and Venkatakrishnan (2006:7) who argue that “there is a perception amongst learners that Mathematical Literacy is for those who cannot do Mathematics...” Pasensie (2012) noted that in South Africa more attention is given to students who passed Mathematics in Grade 12, and little is being done about those who passed ML. Lekota (2015) asserts that Mathematical Literacy has not been well received by some of the higher education institutions in South Africa.

Nevertheless, South African universities offer ML as one of the specialisations in the teaching qualification in the Post Graduate Certificate in Education (PGCE) or Bachelor of Education degree (Bed). ML enhances learners’ ability to identify and solve problems, making decisions using critical and creative thinking (Department of Education (DoE), 2005). For example, teachers could engage in problem-solving where they calculate taxation or compound interest without using the formula. Hence, acquiring ML knowledge became important because it help individuals to handle different situations. For example, in the United States context ML is highly valued. This is evident from Stephen, Register, Reinke, Robinson, Pugalenthi and Pugalee (2021:1) stressed that “a statistically and mathematically literate society is crucial for ensuring that citizens are able to sift through political rhetoric to maintain life-saving procedures such as social distancing and other infection dampening efforts.” Therefore, ML is crucial for individuals to learn for future use.

While the South African universities offer qualifications in ML, in most cases ML is taught by Mathematics teachers and in some cases, it is taught by any teacher who does not have a qualification in the subject. Some studies (Almanthari, Maulina & Bruce, 2020; Chirinda, Mulenga & Marbán, 2020; Ndlovu & Spangenberg, 2021) have explored how Mathematics teachers in secondary schools responded to the call for emergency remote teaching during COVID-19. The findings of these studies suggest that Mathematics teachers transformed their pedagogical practices as an integral part of the transition to online teaching and learning in response to COVID-19. Beyond this, however, little is known about professional development activities of ML teachers and the value of this subject in the South African society. Akiba (2012) defines teacher professional learning activities as intentional activities used to gain new knowledge about teaching and learning processes. These activities thus include collaboration, professional development programs, university courses, informal communications, and individual learning activities. In this article, professional learning activities refers to activities or experiences which Grade 10 teachers undertake to enhance their skills, competencies, and knowledge in the teaching and learning of ML.

The ML teachers were used to meet physically at a selected school. The subject advisor would allocate activities to teachers were they engage in face-to-face discussions in small groups. Thereafter, one group member gave feedback to the whole big group. When COVID-19 lockdowns

were implemented in 2020-2021 one wondered how ML teachers professionally learnt in such conditions if they have learnt at all. Given this background, it was therefore vital for us to understand whether ML teachers engaged in professional learning activities and how they learnt during COVID-19 period. The research questions of this study were: 1. What is the nature of professional learning activities of Grade 10 Mathematical Literacy teachers during COVID-19? 2. How do Grade 10 Mathematical literacy teachers professionally learn during the COVID-19 period?

2. LITERATURE REVIEW

School clusters and teacher clusters are often used interchangeably yet the meaning of these concepts is different. School cluster is the group of schools in the same geographical location, while teacher clusters are made of a group of teachers from different schools. This group of teachers who teach the same subject come together to share knowledge. The school clusters and teacher clusters are both mandatory, but teachers' clusters can be voluntarily formed. Jita and Mokhele (2014) describe clusters as a group of teachers from different schools within one circuit. In clusters, teachers voluntarily work together as a group to engage in discussions on matters related to teaching and learning processes (Jita & Ndlalane, 2009).

The ML cluster is formed by the school cluster, which was mandatory formed, and led by the Department of Education through the ML subject advisor. In other words, it is a group of teachers who share common characteristics like teaching the same subject such as ML at Grade 10 level. In this study, we draw from Jita and Mokhele (2014:2) who view teachers' clusters as part of continual professional development which "replaces cascaded approach where subject advisors trained the heads of department who then trained the classroom teachers." Hence, teacher clusters are viewed as professional learning points, where Grade 10 ML teachers meet and engage in various professional learning activities. The purpose of forming teachers' clusters in South Africa, was to improve teachers' classroom practices and students' performance (Jita & Mokhele, 2014). Muijs (2008) argues that clustering of teachers is a formal school collaboration, which can be considered as a possible intervention strategy to improve schooling in South Africa because it enhances teacher professional development and learning.

We have noticed that there is little research about the knowledge of ML as compared to knowledge of mathematics. Ball, Thames, and Phelps (2008) claim that teachers' mathematical knowledge plays a crucial role in their teaching of mathematics. Ngoepe (2022) argues that in South Africa ML learners experience a lack of career guidance on choices of qualifications, have few learning resources and teaching materials, lack teacher and parental support and lack trained teachers who have specialised in ML. For purposes of this study, we focused on Grade 10 teachers because in Grade 10 learners are expected to make the choice between pure Maths or ML. Furthermore, Grade 10 is the beginning of the Further Education and Training (FET) phase. It is, therefore, important to understand how Grade 10 ML teachers professionally learn during COVID-19 period.

2.1 Conceptual framework

This study employed Kwakman's (2003) model of professional learning activity as a conceptual framework. Kwakman's model of professional learning activity is based on the cognitive learning

theory and professional development perspectives. The cognitive learning theory is grounded on the idea that knowledge and skills can be obtained in a particular learning environment and then transferred in another learning environment. The literature (Adey, Hewitt, Hewitt & Laudau, 2004; Bertram, 2011; Clarke & Hollingsworth, 2002; Day, 2004) showed that transfer of knowledge to another context is not simple as it takes a long period of time for teachers to apply knowledge with confidence in their classroom. According to Kwakman (2003) the professional perspective is based on the idea that teachers are key role players in their own learning, and it favours professional communities as places where effective learning occurs in addition to learning that take place at the workplace. Kwakman (2003) identifies four categories of professional learning activities, shown in Table 1.

| Collaborating | Reading | Experimenting | Not fitting into categories |
|---|--|---|--|
| Storytelling, Asking for help, Giving help, Sharing materials, ideas about innovation, Instructional issues: ideas about pupil counselling, ideas about education | Studying subject matter literature, Reading professional journals, Studying teacher manuals, Reading newspapers | Helping students to learn skills, Preparing lessons individually, Experimenting with new teaching methods, Constructing lesson materials, Constructing lesson materials, Constructing tests, Working with new methods | Counselling pupils, executing non-mural tasks, performing management tasks, organising extracurricular activities |
| Joint work, Coordination, joining committees, | | Supervising student teachers Receiving coaching of guidance, Coaching colleagues Receiving pupil's feedback Implementing innovations | Classroom interaction with pupils, Teaching itself |

Table 1: Kwakman (2003:155) professional learning activities.

Table 1 shows that there four main categories of professional learning activities that teachers should engage in during their daily work. The category that is referred to as non-fitting category acknowledges that participation in professional learning activities takes place beyond the main categories.

For our study, Kwakman's (2003) professional learning activities guided our choices regarding data generation and interpretation, as well as explaining findings. Thus, the framework provided a lens of reference for how the Grade 10 teachers engage in professional learning activities and how they learnt during COVID-19.

3. METHODOLOGY

3.1 Research design

An interpretive case study research design was used with the aim of exploring a general issue within a limited and focused setting (Rule & John, 2011). Furthermore, a case study is often used by researchers to study a person or a group of people. It aims to understand an individual or group of people in-depth within their own environment, as Cohen, Manion and Morrison (2018) state that the aim is to understand the reality of participants' lived experiences of a particular situation. Thus, this study sought to understand lived experiences of the professional learning of Grade 10 ML teachers.

3.2 Sampling method

This study adopted purposive sampling to select the ML cluster. The cluster consists of 32 teachers. Four (one male and three females) out of 32 teachers were willing to participate in this study. These teachers were teaching in schools that operate at different levels in terms of availability of resources. The sample consists of teachers who were teaching Grade 10 in 2020-2021, however, these teachers might also have been teaching Grade 11 and 12 in 2022. Thus, the common characteristic shared by teachers who participated in this study was that they taught the Grade 10 in 2020-2021.

3.3 Research instrument and data collection process

The data was generated in 2022 using semi-structured interviews. Author One conducted interviews face to face with the participants. The author asked questions such as, *How many workshops have you attended during COVID-19? How do other teachers help you during the pandemic period?* The in-depth, semi-structured interviews enabled Author One to gain insight about ML teachers' experiences regarding professional learning activities during the lockdowns of the COVID-19 pandemic. Creswell (2010) asserts that interviews involve probing for more in-depth understanding of a phenomenon instead of casual relationships. It also permits participants to explain their perceptions thereby enabling the researcher to elicit more detailed information. The interview sessions were audio-recorded.

3.4 Data analysis

A deductive approach was adopted to analyse the transcribed qualitative data from semi-structured interviews from audio tape. The data was conceptualised through Kwakman's (2003) professional learning activities (collaboration, reading, experimenting and challenges) to understand the nature of professional learning activities and how ML teachers learnt in their cluster. Pertinent to this limitation of the conceptual framework, we argue that challenges constraining teachers' professional learning activities could be part of Kwakman's (2003) because challenges can emerge in each category. Therefore, the results are presented in four themes in the next section.

4. FINDINGS AND DISCUSSION

The following section is organised into four themes: professional learning activities through collaboration, reading, experimentation and challenges pertaining to teacher's professional learning activities (Kwakman, 2003). We argue that challenges could be part of Kwakman's (2003)

theory because they can emerge in each category. In this study the non-fitting category was not evident in the data. The section also highlights challenges constraining teachers' professional learning in their cluster.

4.1. Professional learning activities through collaboration

Evidence from the interviews indicates that all four participants experienced various professional learning activities through collaboration. Teacher 1 reported about benefits of participating in cluster meeting:

“Participating during the cluster meeting helped me a lot because other people come with different strategies which I didn't know, ...which are simpler than the ones that I was using.”

Interestingly, when Teacher 2 was talking about her learning experiences in the cluster he highlighted that sharing of ideas took place in an online platform. He said:

“I remember what we were discussing answers in the memorandum through Microsoft teams. It was quite helpful because it engaged everyone.”

Similarly, Teacher 3 highlighted that:

“...sharing the information like past papers, revision material that I can use to help my learners.”

This was confirmed by Teacher 4 who explained that:

“Eeh, in most cases we found that other exam papers had the questions that are ambiguous. So, I will ask a colleague to elaborate what is that they want in that question...”

These teachers said that they engaged in collaborative professional learning activities to enhance their understanding of questions in examination papers. This is supported by Kwakman (2003) who asserts that the features of professional learning activities might vary according to the most significant, in this case, Grade 10 teachers getting clarity on ambiguous questions. Therefore, collaboration becomes vital. This is in line with Putnam and Borko's (2000) claim that professional learning takes place in social interaction and in different activities. From this view, the Grade 10 teachers revealed that during COVID-19 lockdowns they shared ideas about memorandum (model answers) in cluster meetings which were held through Microsoft Teams. However, their interview responses seem to suggest that collaboration played a crucial role during COVID-19 period. It allowed them to engage with other colleagues and be exposed to various teaching strategies. The findings of this study corroborate Kaden's (2020) study which established that daily technology support could help in tackling technological problems and sharing platforms. Technological support could include getting assistance on how to operate a laptop or type certain letters and

symbols used in ML. Hence, the pandemic impacted positively on teacher's professional learning activities because it led the participant to learn through collaboration in Microsoft Teams.

There is evidence from the data that indicate that WhatsApp was another platform which helped Grade 10 teachers to engage in collaborative professional learning activities during COVID-19. WhatsApp is a messaging app that uses the internet to send messages, audios, images, and videos. In this study, all four participants commented that they used WhatsApp to communicate, share resource/ideas and learn different things like handling of learners.

Teacher 2:

"Yah, I used WhatsApp quite a lot. It was the one that was accessible to all learners, ...it was the best because I sent voice notes and, they responded if they had questions, they also sent voice notes or took the pictures of the work and sent back then I gave them feedback."

Teacher 3:

"...on our WhatsApp group I do not pose questions about content, only about the administration part. Sometimes they answer and sometimes they don't."

Teacher 4:

"As a cluster coordinator, I share information I get from the subject advisor to teachers' WhatsApp group. I forward resources like learner supporting materials, learner tracking forms, teacher profile forms, teaching plans, dates of assessments past examination papers from different provinces, communique from the department, ...I learnt how to handle different learners from different races. In the past I couldn't understand how to identify if a learner of another race like Indian has a learning disability. Since I am an African, we do things differently from them. Sharing ideas on WhatsApp with colleagues, helped me to learn how to handle such learners in my classroom."

As alluded to in these interview extracts, WhatsApp was a crucial tool for accessing valuable information about teaching and learning skills. These findings relate to Chirinda et al.'s (2021) study that WhatsApp is a vital tool that supported teachers in sharing ideas as well as teaching and learning materials during COVID-19. Sharing of ideas is one of the core functions of professional learning within the clusters which enabled the teachers to access resources during the pandemic. In this study, the teachers showed that they managed to receive valuable messages from the subject advisor and share information with other colleagues. They also viewed WhatsApp as a tool that enabled them to deliver teaching content to their learners. In line with Mpungose (2020) the findings suggest that WhatsApp is these teachers' most preferred communication tool for learning during COVID-19.

4.1.2 Professional learning through reading

Urquhart and Weir (2014) view reading as a process of looking at a series of written symbols and getting sense from them. In this study, reading could be viewed as a way of looking for appropriate information about the use of different technological gadgets (laptops, cell phones, and computers) to enable teachers to teach online and improve their teaching skills. In this study, the Grade 10 ML teachers researched information on how to teach online to enhance their teaching practices. This was confirmed by Teacher 2 and 3 who highlighted:

“Ooh, there is a lot which I learnt on my own through try and error, ...I didn’t feel equipped at that time because we were all like thrown in the deep end when the pandemic came. So, I did my own self research and reading around and that helped me.”

Furthermore, Teacher 2 added:

“It was quite a challenging one. I learnt things like the use of technology on my own from the Google, because it was my first time to use technology to deliver these lessons.”

Like Umugiraneza, Bansilal and North’s (2018) study, the findings seem to suggest that some Grade 10 ML teachers had never used technology in teaching their subject. COVID-19 brought a challenge which made them engage in reading and research on how to manoeuvre and explore about online teaching. This implies that the Grade 10 ML teachers viewed themselves as competent, because they were open to professional learning activities through self-initiatives. Yoon and Armour (2017) claim that the quality of teaching clearly depends on teachers’ continuing professional learning, as teaching contexts, learner behaviour and expectations of teachers change. Given that COVID-19 came to everyone unexpectedly, teachers had to act urgently and make immediate decisions on how to equip themselves through reading and research. Molla and Nolan (2020) assert that “agency freedom” is a core element of teacher professional learning, reflected in the ability of Grade 10 teachers to autonomously act to effect change due to COVID-19. The participants were able to individually advance their technological knowledge and skills.

4.1.3 Teacher professional learning through experimentation

The findings showed that engaging in teacher’s professional learning activities helped them to understand how to teach ML topics like data handling, income tax, and value added tax (VAT). For instance, Teacher 2 says:

“...how to teach VAT, ... others were explaining that they use the formula, the amount that include VAT they divide by 1,15 but to me it doesn’t work because my learners cannot understand a simple formula, so I make use of proportion.”

Teacher 3 also added:

“Solving problems which involves subject of the formula is quite challenging for my learners, others were saying they quickly take off the variable needed calculated but for me, I just use the original formula and switch off the answer at the end.”

Engaging in professional learning activities during COVID-19 exposed teachers to many ways of solving ML problems. Mkhwanazi (2014) argues that cluster meetings helped teachers to communicate with their colleagues from outside their schools. This implies that the Grade 10 teachers might have developed positive attitudes towards their professional learning in order to perform their roles during the COVID-19 pandemic. The findings revealed that discussing different ideas with other teachers assisted the participant to make decisions about teaching methods which suit his/her learners. This is in line with Kwakman (2003) who points out that participating in clusters influenced Grade 10 teachers’ working environment and gave them opportunities to take part in decision-making.

However, the findings also revealed that COVID-19 impacted negatively on Grade 10 ML teachers’ professional learning activities in other ways. The study showed that the participants experienced more job demands like the need for more time during lesson planning, for example, Teacher 2:

“Preparing the online lessons during pandemic was very demanding and time consuming...”

According to Kwakman (2003), pressure of work refers to quantitative demanding aspects such as the pace of work and workload, whereas emotional demands refer to the extent to which the job requires emotional investment. In this study, it emerged that teaching and re-teaching the topics after the pandemic subsided was emotionally draining, for instance, Teacher 4 explains: *“I can say there was some kind of withdrawal from learners ...because I didn’t get 100% cooperation. I had to re-teach again when we came back...”* From the interviews it emerged that all four participants felt that teaching online was a waste of time given that they had to invest a lot of effort in preparing the effective lessons. Again, the lack of learner-cooperation, poor network, and load shedding (shut down of electricity power in parts of a location, town or city) emerged as other negative factors which affected these teachers during the pandemic period. This is illustrated below by Teacher 4:

“...planning for online teaching was quite different to the planning for face-to-face. Firstly, I needed to be well vested in technology, ...it is not like using your scheme book/file. There are other factors that may affect you like power outage and poor network, ...”

Mulenga and Marbán (2020) found that some teachers lack knowledge and skills on how to use online platforms. It seemed as if these teachers had little knowledge about how to plan for the online teaching, hence they might have professionally learnt how to manage their time and adjust from using handwritten planning. This is supported by Kwakman’s (2003) views of professional

learning activities which might influence a teacher has over the working environment which offers opportunities to take part in decision-making.

4.1.4 Challenges constraining teachers' professional learning

Participation and demonstration

WhatsApp groups did not allow teachers to participate and demonstrate on the online platform as they used to do in the face-to-face clusters before COVID-19. Hence, it hindered their professional learning. It affected their classroom practice/teaching as they were not trained to teach online during COVID-19. The findings are drawing us back to indicate that these teachers were not equipped with technological knowledge. The national infrastructure which speaks to the contexts of schools and the presence of relevant resources in the schools under the study.

Makwara (2022) argues that education delivery in South African schools is generally inadequate in various respects which impacts on teacher professional learning. For instance, in this study, only two teachers confirmed that their schools were supplying them with data and also laptops. However, among these two teachers another one came from a school where resources were freely accessible and available, although she could not operate the laptop on her own without guidance. Hence, she had to Google and learn on her own, how to maneuver in isolation, due to the pandemic.

Teacher 2 also added that:

"It was very, very difficult for me to type with my cell phone since it has no signs like square root, PI, and many functions we use in Mathematical literacy. I ended up writing down first and taking pictures then sent to my learners."

Teacher 3 says:

"No, we were not trained, they said you figure your way out because this is a new era in which you should try something to engage with your learners."

Teacher agency during COVID-19 enabled the Grade 10 ML teachers to manage their own learning with the intention to enhance students learning in response to contextual factors of the pandemic (Albion, & Tondeur, 2018). This sense of agency had a positive effect as teachers figured out ways of teaching online on their own with the intention of remaining in the profession as well as delivering of content to the learners during difficult times.

Availability of data and technological devices

The challenges revolving around national infrastructure, availability of data and technological devices are discussed together to avoid repetition. The inequality of education still exists in South African schools (Masinire, 2015; Mukeredzi, & Samuel, 2020; Makwara, 2022). In this study, the participant confirmed this view. For instance, Teacher 1 commended that:

"We didn't do anything because we had no laptops or data. Our learners are also very disadvantaged in the area that we are in. Firstly, we didn't have any details of the learners like their email addresses, or cellphone numbers so that we could call them. ...we didn't teach at all; they were just sitting at home doing nothing."

Teacher 3 added that:

“Most of us in our maths department we were already having laptops. Those who did not have laptops, data or an access to internet were provided for by the school.”

Teacher 1 was coming from a township school while Teacher 3 was in an urban, well-resourced school. From this finding it seems that the learners who were in urban schools typically gained greater overall access to education, receive a higher quality education, and outperform their township and rural counterparts. However, this urban advantage varies across countries but is present in both the developed and developing world (Masinire, 2015). Like in this study, the teacher who was teaching in urban settings like Teacher 1 expressed different opinion about the availability of data and teaching equipment in her school during COVID-19.

For example, Teacher 2 says:

“The school did not provide us with data. They said you need to make your own way through since you are not using transport to come to work, ...use that money for transport to buy data.”

The comment revealed that there is lack of support from the school, as the ML teachers were using their own money to buy data and had to find their ways of teaching online during COVID-19. On the contrary to Teacher 2, Teacher 4 commented:

“The school helped us on how to use technology because most of our meetings were conducted through Zoom and Microsoft Teams. So, they provided us with wifi or internet.”

These findings revealed that there are discrepancies within the schools and particularly the availability of equal resources and treatment within schools.

Poor network connectivity

The negative effects of COVID-19 in rural areas were practically more pronounced due to challenges related to poor internet connectivity, and the general state of infrastructure (Mhlanga & Moloji, 2020; Mukuna & Aloka, 2020). For example, Teacher 1 highlighted that:

“It was very hard because we had difficult network connectivity, WhatsApp was not an easy way of communication with learners. Our learners had no cellphones.”

Furthermore, Teacher 4 added that:

“There are other factors that affected me like poor network connection, which resulted in waiting for longer time to receive a WhatsApp post. By the time the learner’s post arrives, there may already be other posts and hence the learner is left behind.”

Poor network connectivity and learner poverty also contributed to the challenges the participants encountered during COVID-19. Due to poverty and lack of provision of data, poor network connectivity and devices (cell phones, laptops etc), teachers were not able to deliver lessons to their learners as some pupils were unable to access schoolwork.

National infrastructure

In South Africa, poor infrastructure in schools has been identified, including the lack of devices to access the Internet.

Teacher 1:

“No, we were using our own cellphones, I would sit in the car even if it is hot so that I would not be disturbed in the staffroom. I would open my phone and listen to the Microsoft Teams meeting conversations and contribute. We were using our own gadgets.”

Teacher 3:

“Our main channel of communication was Google Classroom. Each class had a Google Classroom with a teacher, where we uploaded the materials and other things for our learners. The school also put learning material for other subjects, general information for parents, or learners on the D6 connect. We also printed out learning material for our learners and parents came and fetch from school. So, there was that option as well.”

Teacher 4: *“...they allocated more computers, we had 5 and they added another 3.”*

The shortage of infrastructure, offices, spare classrooms, devices such as laptops and data, and smartphones affected online learning and teacher professional learning activities during COVID-19 (Mukuna & Aloka, 2020). From the participants' responses above it we conclude that more needs to be done in South African schools in order to realise equal education for all learners. The sentiments presented by these comments need urgent attention from stakeholders responsible for teachers and learners in schools irrespective of their location. The provision of devices suitable to embark on online teaching, needs to be supplied to all schools. The instalment of network boosters needs to be considered if the Department of Basic Education wants to prepare for unforeseen events.

5. CONCLUSION

The study sought to understand impacts of COVID-19 on teacher professional learning of ML and how these teachers professionally learnt during the pandemic period. Although the study found that collaboration was the key to successful teacher professional learning during COVID-19. It also emerged that the teachers learnt how to use technology through their own initiatives- reading and searching information. They also used their own agency including own devices and data to ensure learning continued for learners as well as their own professional growth as tech-savvy teachers. Experimentation played a vital role in widening the teacher's thinking about their teaching methods. The findings revealed that the teachers were limited in participation and demonstration of other ML skills on WhatsApp professional activities. It emerged that the Grade 10 teachers experienced shortage of data and poor network connectivity, and the national infrastructure hampered their professional learning engagement through Microsoft Teams. Furthermore, these teachers needed to engage in collaborative professional learning activities to share ideas and learn from others. We suggest that the Grade 10 ML teachers must engaged in in-service training on how to use technology during teaching and learning processes. This is because

these participants were caught unprepared to navigate their teaching strategies during COVID-19. The participants in this study said they learnt to teach online on their own, and through in-school Microsoft workshops, hence more training on online teaching should be done. Future research could focus on online teaching in schools and how teachers acquired technological knowledge of the 21st century.

REFERENCES

- Adey, P., Hewitt, G., Hewitt, J., & Landau, N. (2004). *The professional development of teachers: Practices and theory*. Norwell: Kluwer Academic Publishers.
- Bansilal, S. (2014). Exploring the notion of Mathematical Literacy teacher knowledge. *South African Journal of Higher Education*, 28(4), 1156-1172.
- Albion, P. R. & Tondeur, J. (2018). 'Information and communication technology and education: Meaningful change through teacher agency', in J. Voogt, G. Knezek, R. Christensen & K-W. Lai (eds.), *Second handbook of information technology in primary and secondary education*, pp. 381–396, Springer, Cham.
- Almanthari, A., Maulina, S., & Bruce, S. (2020). Secondary School Mathematics Teachers' Views on E-Learning Implementation Barriers during the COVID-19 Pandemic: The Case of Indonesia. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(7), 1-9.
- Al-Mutawah, M., Mahmoud, E., Thomas, R., Preji, N., & Alghazo, Y. (2022). Math and science integrated curriculum: Pedagogical knowledge-based education framework. *Education Research International*, 2022(2984464), 1-10. [https://doi.org/ 10.1155/2022/298446](https://doi.org/10.1155/2022/298446).
- Ball, D. L., Thames, M. H., & Phelps, G. (2008). Content knowledge for teaching: What makes it special? *Journal of Teacher Education*, 59(5), 389–407.
- Bansilal, S. (2014). Exploring the notion of Mathematical Literacy teacher knowledge. *South African Journal of Higher Education*, 28(4), 1156-1172.
- Botha, H., Maree, J. & Stols, G. (2013). Mathematical Literacy teachers: Can anyone be one? *Perspectives in Education*, 31(4), 180-194.
- Chirinda, B., Ndlovu, M., & Spangenberg, E. (2021). Teaching mathematics during the COVID-19 lockdown in a context of historical disadvantage. *Education Sciences*, 11(4), 1-14.
- Clark, R. (2012). Maths vs. Maths Literacy: the continuing debate. *Mail & Guardian*, 9 Jan. <http://www.thoughtleader.co.za/readerblog/2012/01/09/maths-vs-maths-literacy-the-continuingdebate>
- Clarke, D. & Hollingsworth, H. (2002) Elaborating a model of teacher professional growth, *Teaching and Teacher Education*, 18(8), pp. 947-967.

-
- Cohen, L, Manion, L. & Morrison, K. (2018). *Research methods in education*. (8th ed.). New York: Routledge.
- Creswell, J. W. (2010). *Qualitative inquiry and research design: choosing among five traditions*. Thousand Oaks: SAGE Publications.
- Day, C. (2004). *A Passion for Teaching*. London: Routledge Falmer.
- Dhurumraj, T., Ramaila, S., Raban, F., & Ashruf, A. (2020). Broadening Educational Pathways to STEM Education through Online Teaching and Learning during COVID-19: Teachers' Perspectives. *Journal of Baltic Science Education*, 19(n6A), 1055-1067.
- Graven, M. & Venkatakrishnan, H. (2006). Emerging Success and Tensions in the Implementation of Mathematical Literacy. *Learning and Teaching Mathematics*, (4), 5-9.
- Jita, L. C. & Mokhele, M. L. (2014). When teacher clusters work: selected experiences of South African teachers with the cluster approach to professional development. *South African Journal of Education*, 34(2), 1-15.
- Jita, L. C., & Ndlalane, T. C. (2009). Teacher clusters in South Africa: Opportunities and constraints for teacher development and change. *Perspectives in Education*, 27(1), 58-68.
- Kaden, U. (2020). COVID-19 school closure-related changes to the professional life of a K–12 teacher. *Education sciences*, 10(6), 1-13.
- Kelly, P. (2006). What is teacher learning? A socio-cultural perspective. *Oxford Review of Education*, 32(4), 505–519.
- Kwakman, K. (2003). Factors affecting teachers' participation in professional learning activities. *Teaching and teacher education*, 19(2), 149-170.
- Lekota, M. L. (2015). *Learners' perceptions of mathematical literacy* (master's dissertation), North-West University, Potchefstroom.
- Makwara, V. (2022). *Foundation phase teacher professional learning outside the formal programmes and its influence on classroom practice in KwaZulu-Natal Province*. (Doctor of Education), Durban University of Technology, Pietermaritzburg.
- Masinire, A. (2015). Recruiting and retaining teachers in rural schools in South Africa: Insights from a rural teaching experience programme. *Australian and International Journal of Rural Education*, 2-14.
- Mhlanga, D., & Moloi, T. (2020). COVID-19 and the digital transformation of education: What are we learning on 4IR in South Africa? *Education sciences*, 10(7), 180.
-

-
- Mkhwanazi, S. (2014). Crossing the past political boundary: Teacher professional learning in a South African reform context. *Mediterranean Journal of Social Sciences*, 5(10), 425.
- Molla, T., & Nolan, A. (2020). Teacher agency and professional practice. *Teachers and Teaching*, 26(1), 67-87.
- Mpungose, C. B. (2020). Is Moodle or WhatsApp the preferred e-learning platform at a South African university? First-year students' experiences. *Education and Information Technologies*, 25: 927-941 <https://doi.org/10.1007/s10639-019-10005-5>
- Muijs, D. (2008). Widening opportunities? A case study of school-to-school collaboration in a rural district. *Improving Schools*, 11(1), 61-73.
- Mukeredzi, T. G., & Samuel, M. A. (2020). Learning About Rurality and Teacher Professionalism in a South African Teacher Education Practicum. *Journal of Educational Studies*, 19(1), 115-140.
- Mukuna, K. R., & Aloka, P. J. (2020). Exploring educators' challenges of online learning in COVID-19 at a rural school, South Africa. *International Journal of Learning, Teaching and Educational Research*, 19(10), 134-149.
- Mulenga, E. M., & Marbán, J. M. (2020). Prospective teachers' online learning mathematics activities in the age of COVID-19: A cluster analysis approach. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(9), em1872.
- Ngoepe, M. G. (2022). The Opinions of Grade 10 Learners on Mathematical Literacy: A Constructivist Perspective. *Journal of Educational Studies*, 21(4), 8-28.
- Pasensie, K. (2012). Matric 2011: Playing the number crunching game yet again. <http://www.cpl.org.za>
- Putnam, R. T., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1), 4-15.
- Rahmadi, F. (2020). WhatsApp group for teaching and learning in Indonesian higher education: What's Up. *International Journal of Interactive Mobile Technologies*, 14(13): 150-159. <https://doi.org/https://doi.org/10.3991/ijim.v14i13.14121>.
- Rule, P. & John, V. (2011). *Your guide to case study research*. Pretoria: van Schaik.
- South Africa. Department of Education. (2005). National Curriculum Statement Grade 10 – 12 (General): Subject Assessment Guidelines. Mathematical Literacy. Pretoria.
- Spangenberg, E. D. (2012). Thinking styles of Mathematics and Mathematical Literacy learners: Implications for subject choice. *Pythagoras*, 33(3), 1-12.
-

Stephan, M., Register, J., Reinke, L., Robinson, C., Pugalenti, P., & Pugalee, D. (2021). People use math as a weapon: Critical mathematics consciousness in the time of COVID-19. *Educational Studies in Mathematics*, 108(3), 513-532.

Umugiraneza, O., Bansilal, S., & North, D. (2018). Exploring teachers' use of technology in teaching and learning mathematics in KwaZulu-Natal schools. *Pythagoras*, 39(1), 1-13.

Urquhart, A. H. and Weir, C. J. (2014). *Reading in a second language: process, product and practice*. Abingdon: Routledge.

Yoon, K. and Armour, K. M. (2017). Mapping physical education teachers' professional learning and impacts on pupil learning in a community of practice in South Korea. *Physical Education and Sport Pedagogy*, 22(4), 427-444.

SSIRC 2023-139**ANALYSING THE INTERRELATIONSHIP BETWEEN SUSTAINABILITY REPORTING AND COMPANY-SPECIFIC ATTRIBUTES OF ZSE-LISTED COMPANIES****P. Korera**

Africa University, Zimbabwe

D. Schutte

North-West University, South Africa

M. Oberholzer

North-West University, South Africa

ABSTRACT

Companies' stakeholders increasingly use the conceptual framework of environmental, social and governance (ESG) reporting to measure companies' sustainability performance. The study analysed Zimbabwean Stock Exchange (ZSE) listed companies' interrelationship between sustainability performance reporting and company-specific attributes and the interrelationship between the three pillars of ESG reporting. ESG scores were calculated for ZSE-listed companies applying a self-developed index, based on ZSE listings report ESG key performance indicators' conforming with the ZIMCODE and GRI-G4 sustainability requirements. The governance pillar has the highest reporting score, with an average of 77.69%, followed by the social and environmental pillars, with 59.99% and 42.70%, respectively. The overall average score is 65.93%. Except for the environmental pillar, which is below 50%, the scores are moderate to good. The study found a positive but negligible correlation between the total ESG disclosure index and firm performance. The ESG sub-indices have no correlation with business success, as this study likewise found. Nevertheless, this study proves that there is room for Zimbabwean companies to improve ESG reporting; especially the environmental pillar; that especially older companies should increase their ESG reporting efforts, and that especially more profitable companies can spend more to improve their ESG reporting efforts. This study's contribution extends the body of knowledge to sustainability performance, using the pillars of ESG reporting as a conceptual frame to analyse ZSE companies.

KEYWORDS: Sustainability reporting; firm performance, National Code on Corporate Governance, Zimbabwe (ZIMCODE), Zimbabwe Stock Exchange (ZSE)

1. INTRODUCTION

Companies' stakeholders increasingly use the conceptual framework of environmental, social and governance (ESG) reporting to measure companies' sustainability performance (Bernardi & Stark, 2018; Aureli et al., 2020). Several criteria usually compile the three pillars. For example, FTSE Russell (2023) allocates the environmental pillar to biodiversity, climate change, pollution,

resources, and water security. The social pillar comprises customer responsibility, human rights and community, health and safety and labour standards. The governance pillar includes anti-corruption, corporate governance, risk management and tax transparency.

Several studies, for example Carnini Pulino et al. (2022), Cheung et al. (2010), Ismai et al. (2020), Kiliç & Kuzey (2018) and Lipunga (2015) sourced companies' ESG ratings from ESG data providers (e.g., Bloomberg, FTSE Russell, Refinitiv), which quantify the variables in their selected criteria to enable assigning a numerical sustainability performance score to a company. Other studies employed indexes to calculate sustainability performance scores, for example, Kiliç and Kuzey (2018), Korera et al. (2020), Owusu-Ansah (1998) and Sanan and Yadav (2011). These indexes are based on standards like S&P Transparency and Disclosure, GRI Sustainability, Integrated Reporting, and corporate governance rules.

Reforms to enhance company ESG reporting have been enacted in developed and developing nations (Yuen et al., 2022). This investigation focuses on three groups of studies. Firstly, those who investigated the ESG reporting's (i.e., sustainability performance) association with company performance, mainly the accounting-based and market-based performance. Most companies have a positive correlation between ESG and financial performance, according to Friede et al.'s 2015 meta-analysis of 2200 studies. In support of Friede et al. (2015), Adegboyegun et al. (2020), Brogi and Lagasio (2018, Ismai et al. (2020), Kiliç and Kuzey (2018), Gutiérrez-Ponce (2022) and Zhou et al. (2022) all found positive associations, which either imply that company profitability has a favourable and considerable influence on sustainability outcomes or that sustainability performance promotes profitability. Contrary to the positive association, Carnini Pulino et al. (2022), Wasiuzzaman et al. (2022), and Yuen et al. (2022) found negative associations and concluded that sustainability performance reduces profitability. Finally, Atan et al.'s (2018) inconclusive study did not find a significant relationship between ESG reporting and financial performance.

The second group of studies found contradictory results between company financial performance and ESG pillars. For example, one pillar correlates positively with financial performance and the other two correlate either negatively or the results are inconclusive (Aydoğmuş et al., 2022; Alareeni & Hamdan, 2020; Atan et al., 2018; Buallay, 2018; Iliemena et al., 2023; Velte, 2017; Zhang et al., 2022).

The third group embraces most of the above studies, which applied regression analysis where company or sustainability performance is the dependent variable. To conclude causality, several company-specific control variables were included in the regression models, such as company age, company size, leverage, and liquidity (Carnini Pulino et al., 2022; Ismai et al., 2020; Zhou et al., 2022). In those studies, some control variables significantly correlate (positively or negatively) with the dependent variable, while others do not.

Considering the above groups of related studies, the contradictory results are apparent. In the context of companies listed on the Zimbabwean Stock Exchange (ZSE), the questions arise: What is the relationship between ZSE companies' financial performance and sustainability performance (i.e., ESG and the individual pillars thereof)? Secondly: What is the relationship between the

different pillars of ESG reporting? Thirdly: What is the relationship between control variables on either company sustainability or performance? Therefore, the study aims to analyse the interrelationship between sustainability performance reporting and company-specific attributes and the interrelationship between the three pillars of ESG. The objectives are (i) to calculate the ESG score, broken up into the three pillars of Zimbabwean listed companies, and to determine the correlation between those companies' (ii) financial performance and ESG reporting, (iii) individual ESG reporting pillars, and (iv) ESG reporting and financial performance with other company-specific attributes.

2. LITERATURE REVIEW

2.1 Conceptual framework

The study's first focus is reporting the sustainability performance of ZSE-listed companies. As explained above, the concept of ESG reporting is designated to serve as a conceptual framework to measure sustainability. Even though "ESG" appears extensively in the literature, the idea lacks a clear definition. Taliento et al. (2019) claim that sustainability is an organisation's relationship with its environment and internal controls to serve stakeholders' interests. According to Iamandi et al. (2019), ESG entails companies' commitment to corporate social responsibility (CSR) and is a sustainability performance measure.

According to Nordqvist (2019), environment, social, and governance parameters are non-monetary indicators of performance focusing on acceptable, ecological, and governance matters to increase accountability and lower companies' carbon footprints, depletion of resources, waste, pollution, and other harmful environmental effects. Issues related to society have a bearing on governance factors such as executive salary, board makeup, auditing processes, and business executive's adherence to the law, ethical principles, and code of ethics. They also have a consequence on workplace health and safety, job opportunities, and diversity. Each of the three criteria improves ESG performance (Taliento et al., 2019).

This study adopted the three-pillar concept of ESG reporting to act as the conceptual framework. Following the practice of studies such as Kiliç and Kuzey (2018), Korera et al. (2020), Owusu-Ansah (1998) and Sanan and Yadav (2011), this study also employs a self-developed index to calculate sustainability performance scores. Kiliç and Kuzey (2018), Owusu-Ansah (1998) and Sanan and Yadav (2011) employed indexes based on models such as Integrated Reporting, GRI Sustainability, S&P Transparency and Disclosure, and corporate governance rules. For example, Sanan and Yadav (2011) investigated 30 Indian BSE-listed companies and developed a Corporate Governance Transparency and Disclosure Score for each company. Kiliç and Kuzey (2018) analysed companies' qualitative and quantitative disclosure using a forward-looking disclosure index.

Refinitiv Eikon, a financial database run by Refinitiv, a London Stock Exchange Group and one of the leading producers of financial markets data, has a structure that is comparable to the one used in this work to construct a sustainability reporting index (Refinitiv, n.d.). Fifty (50) ESG criteria or metrics make up the ESG disclosure index (ESGDI), which is organised into three different sub-indexes

(pillars): Environmental (3 areas), social (4 areas), and governance (3 areas). The total number of entries varied for each ESG disclosure index category in the index since thematic and focal areas have variable characteristics. The environmental sub-index (ESGE) includes information on emissions, resource consumption, and innovation. Workforce, human rights, community, and product responsibility make up the four components of the social sub-index (ESGS). Governance (ESGG), the third sub-index, deals with management, shareholders, and corporate social responsibility (CSR) strategy.

The focus on ESG reporting in Zimbabwe, a developing market, and the literature's references to earlier Zimbabwean studies (Korera et al., 2020; Lipunga, 2015; Mangena & Tauringana, 2007; Owusu-Ansah, 1998), which only focused on corporate governance disclosure, make this study significant. Furthermore, the ESG reporting's relationship with company-specific attributes is also to be investigated.

2.1 Hypothesis

The second focus of the study is to investigate the interrelationship between ESG reporting and company-specific attributes and the interrelationship between the three pillars of ESG. The introduction section already classified previous related studies into three groups. The first group are those who investigated the ESG reporting's relationship with company performance. As indicated in the introduction, researchers found mixed (positive, negative, and inconclusive) associations.

Depending on a study's theoretical foundation, Ismai et al. (2020) investigated whether profitability (financial performance) considerably influences sustainability outcomes. They found a positive association. Their study supports a cutting-edge analysis by Gutiérrez-Ponce (2022) on the transparency of non-financial information on the websites of firms listed on Spain's leading stock exchange index (IBEX 35). However, the latter investigated the variables differently, namely whether sustainability outcomes disclosure promotes profitability. They found that the most transparent companies are also among the most profitable.

According to agency theory and related theories, ESG reporting enhances company performance (Kiliç & Kuzey, 2018; Adegboyegun et al., 2020; Carnini Pulino et al., 2022;). Financial performance is enhanced by sustainability practices. ESG reporting is necessary for many investors, especially those who invest long-term (Eccles & Klimenko, 2019). Clark et al. (2015) state that solid sustainability standards enhance operations, capital availability, costs, and risk. Additionally, according to Clark et al. (2015), strong ties between an organisation's three primary investors - employees, clients, and society - improve performance.

Researchers use a variety of financial performance measures. The market-based ratio Tobin's Q, and accounting-based ratios such as return on equity (ROE) and return on assets (ROA) are all applied in various ways to gauge a company's performance. Shaikh (2021) made use of all three performance indicators. Five hundred ten businesses from 17 different countries were investigated between 2010 and 2018 for their ESG Score, ROA, ROE, and Tobin's Q. Aydoğmuş et al. (2022), Atan et al. (2018) and Zhou et al. (2022) also applied both market-based and accounting-based

measures as proxies for financial performance's. Korera et al. (2020) applied only accounting-based ratios (ROA, ROE and return on capital employed (ROCE)), and Zhang et al. (2022) applied market returns to investigate ESG performance's association with future stock performance.

The second group of studies reported the inconsistency of the ESG reporting pillars with financial performance. Iliemena et al. (2023) found that the social pillar is significant to financial performance while the environmental pillar is not. Zhang et al. (2022) reported that the social and governance pillars work in opposite directions when predicting future financial performance.

Velte (2017) and Buallay (2018), Alareeni and Hamdan (2020) found that the *environmental* category harmed ROA. According to Alareeni and Hamdan (2020), the environmental pillar lowers ROE while raising Tobin's Q. Additionally, Buallay (2018) discovered that the environmental pillar positively influences Tobin's Q. The positive link between ROE and the environmental pillar may be explained by investors' perceptions of environmental practices as a critical driver of asset efficiency (Buallay, 2018). The companies' higher disclosure costs (Alareeni & Hamdan, 2020) may cause the environmental pillar's unfavourable link with ROA and ROE.

According to several studies (Buallay, 2018; Alareeni & Hamdan, 2020), the *social* category of ESG lowers ROA and ROE. According to Alareeni & Hamdan (2020), the negative link may be explained by higher spending that comes with engaging in socially responsible behaviour. In their study of 412 listed German companies between 2010 and 2014, Velte (2017) found a strong correlation between the social pillar and ROA. According to several studies, the social category and Tobin's Q have a positive correlation (Alareeni & Hamdan, 2020). This suggests that companies view CSR initiatives as key components of their market performance (Alareeni & Hamdan, 2020). The social pillar and Tobin's Q have been linked in other studies in an adverse or inconsequential way (Velte, 2017; Buallay, 2019).

Like the other two categories, *governance* has been examined concerning ROA, ROE, and Tobin's Q. Studies (Velte, 2017; Buallay, 2018) have shown that Tobin's Q has a favourable impact on governance. Alareeni & Hamdan (2020) claim that effective governance practices lessen information asymmetry in financial reporting, which benefits stakeholders and shareholders. Velte (2017) discovered that due to Germany's longstanding practice of governance disclosure going back to Code 2002, governance had the most significant impact on financial outcomes. In the opinion of Buallay (2018) and Alareeni & Hamdan (2020), corporate governance reduces ROE. Investigations on governance and ROA have produced a mixed bag of results. While Buallay (2018) discovers a negative association, Velte (2017) and Alareeni & Hamdan (2020) provide positive statistics.

The third group of studies included control variables in regression analysis which may be associated with ESG reporting or financial performance. As many variables have been applied, we selected only company age, size, leverage, and liquidity (Ismail et al., 2020; Carnini Pulino et al., 2022; Zhou et al., 2022) for further analysis.

The findings of previous investigations on the relationship between business performance and transparency and disclosure could be more consistent. The varied outcomes of empirical proof indicate that further support is required for several claims. Rules and laws, governing systems, markets, research methods, and design all have the potential to affect the outcomes. As a result, the study aims to analyse the interrelationship between sustainability performance reporting and company-specific attributes and the interrelationship between the three pillars of ESG. However, this will aid in getting a glimpse of what kind of ESG reporting ZSE companies do (objective (i)). This topic examines whether companies with ZSE listings report ESG key performance indicators' conforming with the ZIMCODE and GRI-G4 sustainability requirements. This paves the road to determining the association that ESG reporting has with company performance, how the ESG pillars associate with each other and how, other than financial performance, company attributes are associated with ESG reporting or financial performance. In Making the previous three groups of studies relevant to this study, the literature can be summarised by stating the following hypotheses (which are also aligned with objectives (ii), (iii), and (iv), respectively):

H₁: There is a significant relationship between ESG reporting (overall and the individual pillars) and the financial performance of ZSE-listed companies.

H₂: There is a significant relationship between the individual pillars of ESG reporting of ZSE-listed companies.

H₃: There is a significant relationship between ESG reporting and financial performance with other company-specific attributes (company age, company size, leverage, and liquidity).

3. METHODOLOGY

This study utilized a quantitative dominant methodology, incorporating both phenomenological and positivist approaches. The study aims to explore ESG disclosure, seek new perspectives, reevaluate the phenomenon, and generate new research ideas through descriptive exploratory methods.

3.1 Research design

The study aims to analyse the interrelationship between sustainability reporting and company-specific attributes. First, sustainability reporting is measured by the ESG disclosure index (ESGDI), which consists of the ESG environmental index (ESGEI), ESG social index (ESGSI) and ESG governance index (ESGGI). The company-specific attributes are, firstly, financial performance indicators. Following studies such as Alareeni and Hamdan (2020), Buallay (2018) and Korera et al. (2020), the following accounting-based financial measures were selected, ROA, ROCE, and ROE. Secondly, other selected variables are company age (CAge) in years, company size (CSize) expressed in millions of United States Dollars, leverage (LEVRG) in terms of equity divided by debt, and liquidity (LIQDTY) in terms of total current assets divided by total current liabilities.

3.2 Sampling method

In this investigation, purposive sampling was used because it takes judgment to choose the sample organisations for this study. According to Saunders et al. (2019), this aids in the study's goal- and

research-related question-answering. The study selected a sample of 30 ZSE-database enterprises from various economic areas, using their annual reports as a reference.

3.3 Research instrument

The Global Reporting Initiative (GRI-G4) guidelines were one of many frameworks from which the requirements or questions of the score system was primarily derived. In order to become familiar with the scoring system, reference was made to the score structure from the Refinitiv Eikon. The three primary categories (sub-indices) that make up the ESG disclosure index (ESGDI), which has 50 indicators total, are as follows: (i) ESG environmental index (11 indicators), ESG social index (11 indicators), and ESG governance index (28 indications). A score of zero was assigned for no disclosure, one for disclosure to a lesser extent, and two for significant disclosure under the ESGDI scoring system's three-point Likert scale.

3.4 Data collection

Thirty ZSE-listed companies from various economic sectors make up the final sample. The yearly filings were acquired from a variety of sources, including (i) the firm website; and (ii) the African Financials database (African Financials, n.d.) in electronic form spanning 2017 to 2021. Selecting 30 companies over six years provide 150 data points.

3.5 Data analysis

The data analysis aims to report on ZSE companies' ESG reporting scores, as calculated by the self-developed index, and to test relationships indicated in the three hypotheses as stated above. Descriptive statistics were calculated for each variable to introduce the reader to the data. The actual continuous data were analysed. After that, the RANK.AVG function in Excel was applied to arrange the data in ranking order. The ranking order is required to enable the calculation of Spearman's rank correlation coefficient to assess the relationships. Gupta (2023) states that Spearman's rank correlation is a tool to measure the strength and direction of the relationship between two ranked variables. This is a measure of the monotonicity of the relationship. The ranking of data ensures that the influences of outliers are limited.

Hypothesis testing followed the rule that only $\rho < \alpha = 0.05$ (two-tailed) assumes a strong enough relationship which is sufficient evidence to accept a hypothesis (Oberholzer, 2013).

4. RESULTS AND DISCUSSION

4.1 Descriptive statistics

The descriptive statistical results are shown in Table 1. Reporting on the ESG reporting scores of the sample companies (objective (i)) reveals that the mean value of the environmental pillar score (ESGEI) is 42.70% with a standard deviation of 47.17. This shows that the environmental reporting of these listed companies is relatively low. The reporting on the social element (ESGSI) is generally high, indicated by a score of 59.99%, while the standard deviation is 25.98%. For ESGEI and ESGSI, the lowest and maximum values are 0% and 100%, respectively. The governance pillar score (ESGGI) has a mean value of 77.69%, a standard deviation of 12.34, a minimum value of 52%, and a maximum value of 100%. This shows a fair amount of reporting on key performance

indicators for corporate governance. The overall ESG score (ESGDI) ranges from 31% to 100%, with a mean value of 65.93% and a standard deviation of 20.23%.

The second group of variables in Table 1 selected the company-specific attributes, CAge, CSize, LEVRG and LQDTY. The average age of the companies is 66.38 years, with an average size of 195.57USD million. The extremely high standard deviation of CSize indicates that the company sizes are very widely spread. The LEVRG indicates that the average leverage level is 13.08%, and the average liquidity of companies is 3.51 times. The third group of variables represents firm performance, which is all ratios. The average profitability, ROA, ROCE and ROE seems good (9.91%, 23.91% and 16.99%); however, the data is relatively widely spread, ranging from loss-making to highly profitable companies.

4.2 Hypothesis testing

The second objective was to test H_1 that there is a significant relationship between ESG reporting and the financial performance of ZSE-listed companies. Table 2 shows that none of the individual and overall ESG reporting elements (ESGEI, ESGSI, ESGGI and ESGDI) significantly correlate with any financial performance indicators (ROA, ROCE and ROE). Therefore, H_1 is rejected. This contradicts Friede et al.'s 2015 meta-analysis of 2200 studies that found ESG reporting is mostly positively related to financial reporting. This is also contradictory to the studies that all found a *significant positive* relationship between ESG reporting and financial performance (Adegboyegun et al., 2020; Brogi & Lagasio, 2018; Ismai et al., 2020; Klç & Kuzey, 2018; Gutiérrez-Ponce, 2022; Zhou et al., 2022), and those who found a *significant negative* relationship (Carnini Pulino et al., 2022; Wasiuzzaman et al., 2022; Yuen et al., 2022). However, this study's results correspond with Atan et al.'s (2018) inconclusive results who did not find a significant relationship between ESG reporting and financial performance. The lack of significant relationships testing H_1 confirms that further, more advanced analysis, such as regression analysis, would not lead to another result/conclusion.

The third objective was to test H_2 that a significant relationship exists between the individual pillars of ESG reporting of ZSE-listed companies. This hypothesis was inspired because many studies found that the different pillars of ESG reporting relate differently to financial performance. Therefore, this study wants to determine the extent to which an interrelationship exists between the ESG pillars. Table 2 indicates that H_2 is accepted. All three ESG pillars (ESGEI, ESGSI, ESGGI) have a positive relationship with each other at a 1% significance level. These results are indirectly contradictory to studies that found that the different elements of ESG reporting relate differently to financial performance (Aydoğmuş et al., 2022; Alareeni & Hamdan, 2020; Atan et al., 2018; Buallay, 2018; Iliemena et al., 2023; Velte, 2017; Zang et al., 2022). However, the results indirectly support studies that found that all the elements of ESG work in the same direction when compared with a variable such as financial performance (Atan et al., 2018; Mans-Kemp & van der Lugt, 2020).

Table 1 Descriptive statistics

| | ESGEI | ESGSI | ESGGI | ESGDI | CAge | CSize | LEVRG | LQDTY | ROA | ROCE | ROE |
|-----------------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|
| Mean | 42,70 | 59,99 | 77,69 | 65,93 | 66,38 | 195,57 | 13,08 | 3,51 | 9,91 | 23,91 | 16,99 |
| Median | 5 | 64 | 77 | 55 | 67 | 49 | 0 | 2 | 7 | 16 | 13 |
| S. D | 47,17 | 25,98 | 12,34 | 20,23 | 22,44 | 322,73 | 67,38 | 16,77 | 42,05 | 52,83 | 51,65 |
| Kurtosis | -1,84 | -0,57 | -0,32 | -1,23 | 0,61 | 10,17 | 139,27 | 145,62 | 74,44 | 42,87 | 38,58 |
| Skewness | 0,31 | -0,30 | -0,01 | 0,12 | 0,13 | 2,75 | 11,60 | 11,99 | 6,09 | 5,64 | 3,40 |
| Minimum | 0 | 0 | 52 | 31 | 20 | 0 | -0,1 | 0 | -208 | -116 | -236 |
| Maximum | 100 | 100 | 100 | 100 | 125 | 2170 | 818 | 206 | 434 | 461 | 456 |
| Count | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |

Table 2 Spearman's correlation analysis

| | ESGEI | ESGSI | ESGGI | ESGDI | CAge | CSize | LEVRG | LQDTY | ROA | ROCE | ROE |
|----------------|-------|---------|---------|---------|----------|-------|--------|--------|--------|---------|---------|
| ESGEI | 1,00 | 0,67*** | 0,51*** | 0,79*** | -0,11 | -0,01 | -0,11 | -0,03 | 0,11 | 0,00 | 0,08 |
| ESGSI | | 1,00 | 0,72*** | 0,92*** | -0,06 | 0,09 | -0,04 | -0,13 | 0,01 | -0,01 | 0,08 |
| ESGGI | | | 1,00 | 0,82*** | -0,32*** | 0,12 | 0,05 | -0,02 | -0,07 | -0,02 | 0,05 |
| ESGDI | | | | 1,00 | -0,17** | 0,06 | -0,04 | -0,07 | 0,04 | 0,00 | 0,10 |
| CompAge | | | | | 1,00 | -0,11 | -0,08 | 0,13 | 0,13 | 0,11 | 0,09 |
| CompSz | | | | | | 1,00 | 0,17** | -0,03 | 0,12 | 0,12 | 0,15* |
| LEVRG | | | | | | | 1,00 | -0,16* | -0,02 | -0,08 | 0,02 |
| LQDTY | | | | | | | | 1,00 | 0,19** | 0,08 | -0,03 |
| ROA | | | | | | | | | 1,00 | 0,66*** | 0,85*** |
| ROCE | | | | | | | | | | 1,00 | 0,64*** |
| ROE | | | | | | | | | | | 1,00 |

*, **, *** Correlation is significant at 10%, 5% and 1%, respectively (two-tailed)

The fourth objective was to test H_3 that there is a significant relationship between ESG reporting and financial performance with other company-specific attributes (company age, company size, leverage, and liquidity). Table 2 indicates that H_3 is only partly rejected. The following are the significant relationships found between ESG/ financial performance and the other company-specific attributes:

- Company age highly correlates negatively with ESG's governance pillar (ESGGI) at a 1% significance level. This finding implies that younger companies are much better governed than older ones.
- The ESG reporting as a whole (ESGDI) and company age are significantly negatively related at a 5% significance level, implying that younger companies are more sustainable than older ones.
- Only one financial performance indicator (ROA) positively correlates with a company-specific attribute, liquidity (LQDTY), at a 5% significant level. That implies that liquidity promotes financial performance as measured by ROA.
- Some correlation was found between companies' liquidity (LQDTY) and leverage (LEVRG) and between ROA and company size (CSize); however, the significance in both analyses is significant at a 10% level, probably not strong enough to accept a hypothesis.

5. CONCLUSION

This study analysed the interrelationship between sustainability performance reporting and company-specific attributes and the interrelationship between the three pillars of sustainability performance. ESG reporting three pillars provided a conceptual framework wherein sustainability performance was researched. The first objective was to develop an index to calculate the sustainability performance scores of 30 selected ZSE-listed companies. This index is based on ESG KPIs conforming with the ZIMCODE and GRI-G4 sustainability requirements. The governance pillar has the highest reporting score, with an average of 77.69%, followed by the social and environmental pillars, with 59.99% and 42.70%, respectively. The overall average score is 65.93%. Except for the environmental pillar, which is below 50%, the scores are moderate to good.

The second objective was to test H_1 that there is a significant relationship between ESG reporting and the financial performance of ZSE-listed companies. None of the individual and overall ESG reporting elements significantly correlate with financial performance. The third objective, testing H_2 , revealed that all three pillars of ESG reporting are highly related. The fourth objective, testing H_3 , revealed that few other company-specific variables relate to ESG reporting, namely that younger companies do better in sustainability than older companies and that liquidity may promote financial performance.

Therefore, the study concludes that Zimbabwean companies' sustainable performance does not promote financial performance, and *vice versa*. Thus, financial performance and ESG reporting are independent of each other. Furthermore, the ESG pillars are working in the same direction and

finally, older companies cannot keep up with younger companies in ESG reporting. The value of the study is that this is, as far as the authors' knowledge, the first effort to analyse the sustainability performance of ZSE-listed companies. The study's results should be assessed against the backdrop that ESG reporting is mainly voluntary. Nevertheless, this study proves: that there is room for Zimbabwean companies to improve ESG reporting; especially the environmental pillar; that especially older companies should increase their ESG reporting efforts, and that especially more profitable companies can spend more to improve their ESG reporting efforts.

This study's contribution extends the body of knowledge to sustainability performance, using the pillars of ESG reporting as a conceptual frame to analyse ZSE companies. Similarities and contradictions in the literature were clearly uncovered. The study's primary limitation is that a causal relationship analysis between sustainability and financial performance was not accomplished due to the poor correlation coefficients between those two variables. Future studies can fill this gap to enable determining the direction of associations.

REFERENCES

- Adegboyegun, A. E., Alade, M. E., and Ben-Caleb, E. (2020). Integrated reporting and corporate performance in Nigeria: evidence from the banking industry. *Cogent Business & Management*, 7(1), 1-12.
- African Financials (n.d.). African Stock Market Companies. Retrieved from <https://africanfinancials.com/african-listed-companies/?wpv-tax-country=zw>
- Alareeni, B. A., and Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance (Bradford)*, 20(7), 1409-1428.
- Atan, R., Alam, M. M., Said, J., and Zamri, M. (2018). The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies. *Management of Environmental Quality: An International Journal*, 29(2), 182-194.
- Aureli, S., Gigli, S., Medei, R., and Supino, E. (2020). The value relevance of environmental, social, and governance disclosure: Evidence from Dow Jones sustainability world index listed companies. *Corporate Social Responsibility and Environmental Management*, 27, 43-52.
- Aydoğmuş, M., Gülay, G., and Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, 22(2), S119-S127.
- Bernardi, C., and Stark, A. W. (2018). Environmental, social and governance disclosure, integrated reporting, and the accuracy of analyst forecasts. *The British Accounting Review*, 50(1), 16-31.
- Brogi, M., and Lagasio, V. (2018). Environmental, social, and governance and company profitability: Are financial intermediaries different? *Corporate Social Responsibility and Environmental Management Journal*, 26(3), 576-587.

-
- Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, 30(1), 98-115.
- Buallay, A. (2018). Sustainability reporting and firm's performance: Comparative study between manufacturing and banking sectors. *International Journal of Productivity and Performance Management*, 69(3), 431-445.
- Carnini Pulino, S., Ciaburri, M., Magnanelli, B. S., and Nasta, L. (2022). Does ESG Disclosure Influence Firm Performance? *Sustainability*, 2022(14), 7595.
- Cheung, Y-L., Jiang, P., and Tan, W. (2010). A transparency disclosure index measuring disclosures: Chinese listed companies. *Journal of Accounting and Public Policy*, 29(3), 259-280.
- Clark, G. L., Feiner, A., and Viehs, M. (2015). From the stockholder to the stakeholder: How sustainability can drive financial outperformance. Retrieved from <http://ssrn.com/abstract=2508281>.
- Eccles, R. G., and Klimenko, S. (2019). The Investor Revolution Shareholders are getting serious about sustainability. *Harvard Business Review*, 97(3), 106-116.
- Friede, G., Busch, T., and Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment*, 5(4), 210–233.
- FTSE Russell. (2023). ESG scores. Retrieved at <https://www.ftserussell.com/data/sustainability-and-esg-data/esg-ratings>.
- Gupta, A., 2023. Spearman's rank order correlation: The definitive guide to understand. Retrieved from <https://www.simplilearn.com/tutorials/statistics-tutorial/spearman's-rank-correlation>.
- Gutierrez-Ponce, H. (2022). Sustainability as a strategy base in Spanish firms: Sustainability reports and performance on the sustainable development goals. *Sustainable Development*. 2023, 1-16.
- Iamandi, I. E., Constantin, L.-G., Munteanu, S. M., and Cernat-Gruici, B. (2019). Mapping the ESG behavior of European Companies: A holistic Kohonen approach. *Sustainability*, 11(12), 3276.
- Iliemena, R. O. P., Ijeoma, N. B., and Uagbale-Ekatak, R. (2023). Sustainability Reporting and economic value added: Empirical evidence from listed manufacturing entities in Nigeria. *Science and Education*, 3(4), 660-677.
- Ismail, N., Isa, M. A. M., Rahman, N.H.A., and Mazlan, N. F. (2020). Sustainability performance using environmental, social and governance (ESG) scores: Evidence from public listed companies in Malaysia. *International Journal of Accounting*, 5(30), 183-194.
- Kaiser, L. (2020). ESG integration: value, growth and momentum. *Journal of asset management*, 21(1), 32-51.
-

-
- Kılıç, M., and Kuzey, C. (2018). Determinants of forward-looking disclosures in integrated reporting. *Managerial Auditing Journal*, 33(1), 115-144.
- Korera, C. P., Schutte, D. P., and Oberholzer, M. (2020). The association between Zimbabwean listed firms' financial performance and the quality of their corporate disclosure and transparency practices. *International Journal of Business and Management Studies* 12(2), 388-402.
- Lipunga, A. M. (2015). Integrated reporting in developing countries: Evidence from Malawi. *Journal of Management Research*, 7(3), 130.
- Mangena, M., and Tauringana, V. (2007). Disclosure, corporate governance, and foreign share ownership on the Zimbabwe Stock Exchange. *Journal of International Financial Management & Accounting*, 18(2), 53-85.
- Mans-Kemp, N., and Van der Lugt, C. T. (2020). Linking integrated reporting quality with sustainability performance and financial performance in South Africa. *South African Journal of Economic and Management Sciences*, 23(1), 1-11.
- Nordqvist, C. (2019). What is ESG? Retrieved from <https://marketbusinessnews.com/financial-glossary/esg-definition-meaning/>.
- Oberholzer, M. (2013). A non-parametric comparison among firms' income statement-based and balance sheet-based performance. *International Business & Economics Research Journal*, 12(11), 1467-1478.
- Owusu-Ansah, S. (1998). The impact of corporate attributes on the extent of mandatory disclosure and reporting by listed companies in Zimbabwe. *The International Journal of Accounting*, 33(5), 605-631.
- Refinitiv (n.d). An overview of Environmental, Social and Corporate Governance - ESG. Retrieved from <https://www.refinitiv.com/en/financial-data/company-data/esg-data>.
- Sanan, N., and Yadav, S. (2011). Corporate governance reforms and financial disclosures: a case of Indian companies. *The IUP Journal of Corporate Governance*, 10(2), 62-83.
- Saunders, M. N. K., Lewis, P., and Thornhill, A. (2019). *Research methods for business students*. New York: Pearson.
- Shaikh, I. (2021). Environment, social and governance (ESG) practice and firm performance: International evidence. *Journal of Business Economics and Management*, 23(2), 218-237.
- Taliento, M., Favino, C., and Netti, A. (2019). Impact of environmental, social, and governance information on economic performance: Evidence of a corporate' sustainability advantage' from Europe. *Sustainability*, 11(6), 1738.
- Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. *Journal of Global Responsibility*, 80(2), 169-178
-

ZSE (Zimbabwe Stock Exchange). (2020). Zimbabwe Stock Exchange Listing Rules. Retrieved from <https://www.zse.co.zw/>.

Wasiuzzaman, S., Ibrahim, S. A., and Kawi, F. (2022). Environmental, social and governance (ESG) disclosure and firm performance: Does national culture matter? *Meditari Accountancy Research*, (ahead-of-print).

Yuen, M. K., Ngo, T., Le, T. D., and Ho, T. H. (2022). The environment, social and governance (ESG) activities and profitability under COVID-19: Evidence from the global banking sector. *Journal of Economics and Development*, 24(4), 345-364.

Zhang, X., Zhao, X., and He, Y. (2022). Does it pay to be responsible? The performance of ESG investing in China. *Emerging Markets Finance and Trade*, 58(11), 3048-3075.

Zhou, G., Liu, L., and Luo, S. (2022). Sustainable development, ESG performance and company market value: Mediating effect of financial performance. *Business Strategy and the Environment*, 31(7), 3371-3387.

SSIRC 2023-140

THE EFFECT OF DOMESTIC CREDIT AND DEBT ON ECONOMIC GROWTH OF SOUTH AFRICA

N.E. Ratombo

University of Limpopo, South Africa

I.P. Mongale

University of Limpopo, South Africa

ABSTRACT

While there is an irreconcilable difference between the controversial credit and debt view, which assumes that increasing domestic credit stimulates economic growth, increasing debt is proposed as another key to restricting economic growth. Previous empirical literature shows mixed outcomes that countries are experiencing through their economic growth. Countries' mixed sentiments are echoed by various policies and the level of development. The study used the Autoregressive Distributed Lag (ARDL) to investigate the effects of domestic credit and debt on the economic growth of South Africa. The study attempted to achieve its aim by using annual time series secondary data covering two decades from 2000 to 2020 and the data were collected from the World Bank. The unit root tests were performed to validate that stationarity was obtained as I (0) and I (1). The ARDL was used to reveal the cointegration bounds test outcome, and the short and long run results. A cointegrating long-run relationship among the variables was found. The results revealed that in the long-run domestic credit by the private sector to banks has a positive impact on gross domestic product (GDP) growth and a negative impact on GDP per capita. South Africa reveals a poor distribution of GDP growth and GDP per capita compared to a good distribution of domestic credit by the private sector to banks and external debt over the period 2000-2020. South Africa is applying a neutral or non-aligned hypothesis between financial depth and economic growth. The current study contributes to the body of knowledge by outlining that the country's economic growth is used as an autonomous competitor between domestic credit and debt.

KEYWORDS: Domestic credit, Debt, Economic growth, ARDL, South Africa

1. INTRODUCTION

Domestic credit and debt are increasingly recognised as serious worldwide concerns that drive both developed and developing countries' economic growth to multiple spheres (Jones & Knaack 2019). This increases the level of contradiction between the domestic credit and debt view by assuming that increasing domestic credit stimulates economic growth, while on the other hand, it is anticipated that an increase in domestic debt restricts economic growth (Jones et al. 2019).

Previous empirical literature shows mixed outcomes that countries are experiencing through their economic growth. Arcand et al. (2015) as well as Rousseau and Wachtel (2017) show that above

a certain threshold, there is a negative relationship between financial deepening and economic growth. This notion is echoed by Alter et al. (2018) who posit that household debt increases the probability of banking crises and the effect is twice as large as non-financial corporate debt. This result is even stronger when the level of household debt is above 65 percent of GDP. Furthermore, Bezemer et al. (2021) indicate that credit flows to nonfinancial businesses typically support private sector investment and innovation, and thereby wider productivity growth.

Wamba et al. (2017) revealed that in Cameroon, loans are useful and effective during the company foundation phase. However, their effectiveness disappears quickly if the loan duration stretches, and it results in fragile growth. As countries received plentiful funding, it was believed that most developing countries would remain extremely indebted to their suppliers. Henceforth, the effects of domestic credit and debt on economic growth have increased uncertainty at the country's level (Wamba et al. 2017).

Apparently, domestic credit was provided by banks to support long-term economic growth and to improve the financial system connection. These credits are used to purchase productive resources that are linked to country growth (Camba & Camba 2020). Domestic credit was provided to sustain financial corporations in the private sector through loans and by purchasing non-equity securities. Financial corporations take advantage of the country's trade credits and financial records to measure their accurate monetary aggregates (Ibrahim & Alagidede 2017; Fosu & Abass 2019).

On the other hand, Kiptui (2020) and World Bank International Debt Statistics (2022) discovered that developing countries' external debt stock reached 702 billion during the year 2020. These increasing levels of public debt have continued to create economic growth uncertainty and decreased the country's level of growth significantly (Kiptui 2020).

As a country experiences unpredictable credit and debt, its growth becomes incapacitated. This indicates a need to understand the various perceptions of domestic credit and debt in relation to economic growth. However, there is also increasing concern over economic growth insecurity in developing countries such as South Africa. To the best of the researchers' knowledge, there is limited evidence of literature focusing on this issue in South Africa. It is against this context that the current study intends to investigate the effect of domestic credit and debt on the economic growth of South Africa. The questions of concern in the study are structured as follows: What are the effects of domestic credit on economic growth? What are the effects of debt on the economic growth in South Africa?

The remaining section of this study is arranged as follows, section 2 discusses the literature, and the study methodology is presented in Section 3. Section 4 presents the findings and section 5 provides the conclusion and makes recommendations to improve policy implications on the effects of domestic credit and debt on economic growth of South Africa.

2. LITERATURE REVIEW

This section presents the theoretical and empirical literature related to this study.

2.1 Theoretical literature

The current study adopted the four financial depth assumptions to detect the relevant method that can improve South Africa's economic growth based on domestic credit and debt. Firstly, the study considers the supply-leading hypothesis. This theory opposes the use of untested financial depth to be used as a prerequisite to economic growth (Shaw 1973; King & Levine 1993; Rudra et al. 2017). The followers of this hypothesis retain that financial depth is useful to persuade direct savings and deposits from the financial assets to the capital formation that encourages future economic growth (Quartey & Prah 2008; Pradhan 2011; Rudra et al. 2017). As a result, this connection runs from financial depth to economic growth.

Secondly, the study used the demand-following hypothesis. According to this hypothesis, the connection runs from economic growth to financial depth through collective funding and investment opportunities and expanding risk. This theory relies on the strength of economic growth to respond to additional financial services (Jung 1986; Odhiambo 2008; Rudra et al. 2017).

Thirdly, the feedback hypothesis was used to reveal a bidirectional connection between financial depth to economic growth is crucial. This theory reveals that financial depth can be used to supplement and support economic growth in a well-organised economy by creating joint contributions (Demetriades & Hussein 1996; Pradhan & Gunashekar 2013; Rudra et al. 2017). Lastly, it elucidates the neutrality hypothesis between financial depth and economic growth. This theory contends that there is an autonomous relationship between financial depth and economic growth (Chandavarkar 1992; Rudra et al. 2017).

Thus, the reviewed theories form part of a continuous question of whether domestic credit and debt drive economic growth or not. Furthermore, the differences from the selected theories permit this study to be presented to further increase the research scope of this nature in the region and particularly in South Africa.

2.2 Empirical literature

The empirical literature is divided into the effects of domestic credit and economic growth and external debt and economic growth.

2.2.1 Effects of domestic credit on economic growth

As a part of their study on the domestic credit influence on the GDP between 1995 to 2018, Camba et al. (2020) used the ARDL model and found that in Philippines' GDP per capita growth has a negative influence on the domestic credit of the country. Acharya (2015) applied a vector error correction model to investigate the relationship between Nepal's level of GDP, domestic credit, and exports from 1975 to 2014. In the long run, it was noted that domestic credit doubled GDP. About 2.06% of domestic credit was achieved in the short run, which doubled to 4.65% over the long run period in Nepal.

Usman (2023) applied ARDL to examine the linkages between trade, financial openness, and economic growth in China from 1992 to 2021. The study findings highlighted that domestic credit

extension by the banking industry encourages global trade growth and provides a meaningful relationship between economic growth.

Rana and Barua (2015) found that domestic credit has failed to foster economic growth in South Asian countries covering the period from 1980 to 2012. After that, Patra and Dastidar (2018) discovered that South Asian countries revealed positive domestic credit although it was insignificantly aligned with a country's economic growth from 1990 to 2015. Their findings were later supported by Rahman et al. (2019) who used the generalised methods of moments and data from 1975 to 2016 to investigate the same relationship in the same region. They found a positive and significant relationship between domestic credit and economic growth. However, on the contrary, using the ARDL approach Rudra et al. (2017) revealed a unidirectional link between domestic credit to the private sector and economic growth for India and Pakistan.

2.2.2 Effects of debt on economic growth

Musyoka (2017) found that Kenya's national debt has a negative influence on the country's economic growth. In the same view, Senadza et al. (2017) reveal that external debt has negative effects on economic growth in 39 sub-Saharan countries from 1990 to 2013. A negative relationship was also noted by Megersa and Cassimon (2015) who established that a developing country's public debt had a negative connection with economic growth from 2005-2011. Furthermore, Pegkas (2018) found a negative long-run influence between government debt and the economic growth of Greece. The study concluded that debt and growth have always displayed a breaking link in Greece.

According to Lidiema's (2017) findings, domestic debt has a negative and significant relationship with Gross fixed capital formation, which weakens in the long run. The study used ARDL to confirm that extreme domestic borrowing made by the government can spur negative effects to investment and ultimately harm the country's economic growth. Similarly, Liu and Lee (2018) discovered that public debt and economic growth relationships moved from bad to worse because of concealed information. The concealed information is normally disclosed during the crowding-out (debt extension) period due to failure to make systematic payments. Festus and Saibu (2019) found that in Nigeria, external debt was used to spur negative growth.

Guei (2019) used 13 emerging countries to reveal the negative link between debt and economic growth. The study findings reveal that public debt fails to influence economic growth during its long-run period. In addition, Kiptui (2020) used the data from 1970 to 2019 to reveal Kenya's negative public debt related to economic growth in the long run. This made Kenya's domestic debt to be significant on growth in the short run while long-run effects are insignificant to the country's growth. According to Abubakar and Mamman (2020), public debt effects on economic growth have put forth negative and positive transient on 37 Organisation for Economic Co-operation and Development (OECD) countries from 1980 to 2018. Debt reveals negative and long-lasting effects on economic growth. On the other hand, the positive transitory was compelled by the undesirable long-lasting effects that exhibit unimportant economic growth. A macro panel regression approach was applied in Kenya, Uganda and Tanzania to determine and define the

effects of public debt on economic growth (Fatoki & Muoki, 2021). The study revealed a significant and positive effect between external debt and economic growth. However, domestic debt discloses some negative incentives towards economic growth. Moreover, Ndubuisi (2017) revealed that there is a long-run relationship between external debt and GDP in Nigeria.

The reviewed literature revealed that to date developing countries have tended to focus on domestic credit and debt than economic growth. As a result, the existing interpretations fail to resolve the effect of domestic credit and debt refutation toward economic growth. Moreover, the literature reveals that South Asian countries/regions are fascinated with evaluating their domestic credit more than the African region while the African region’s attention is hooked on either public debt or external debt. After locating the gap in previous studies’ research concentration, the researchers saw a need to clarify several aspects between domestic credit and debt intention on the economic growth of South Africa. The current study attempts to contribute to this scholarly debate using both domestic credit and debt to reveal the level of South Africa’s economic growth from 2000 to 2020.

3. METHODOLOGY

This section outlines the data collection process, model specification and econometric techniques applied by the study.

3.1 Data

The current study applied annual time series data from 2000 to 2020. The data were sourced from the World Bank. Annual data were selected to capture various domestic credit and debt dimension for the period under investigation.

3.2 Model specification and estimation techniques

The current study followed the footprint of Camba et al. (2020) who measured economic growth through GDP growth and GDP per capita. The independent variables are measured as follows: domestic credit is measured by domestic credit to the private sector by banks while debt is measured by the total loan debt of the national government (R millions) (Kiptui 2020; Ajayi & Edewusi 2020). E-views 12 software was used to analyse the data.

To achieve its aim, this study itemised its models after Kiptui (2020) and Camba et al. (2020) as follows:

Model_1

$$\begin{aligned} \Delta GDPGRW_t = & \mu_{11GDPGRW} + \sum_{j=1}^k Y_{11GDPGRW_i} \Delta GDPGRW_{t-i} + \sum_{j=1}^q \alpha_{11GDPGRW_j} \Delta DCREDIT_{t-j} \\ & + \sum_{k=1}^r \beta_{11GDPGRW_k} \Delta EXTDEBT_{t-k} + \delta_{11GDPGRW} GDPGRW_{t-1} + \omega_{11GDPGRW} DCREDIT_{t-1} + \\ & \rho_{11GDPGRW} EXTDEBT_{t-1} + \varphi_{11t} \end{aligned} \tag{1}$$

Model_2

$$\begin{aligned} \Delta GDPPC_t = & \mu_{11GDPPC} + \sum_{j=1}^k Y_{11GDPPC_i} \Delta GDPPC_{t-i} + \sum_{j=1}^q \alpha_{11GDPPC_j} \Delta DCREDIT_{t-j} \\ & + \sum_{k=1}^r \beta_{11GDPPC_k} \Delta EXTDEBT_{t-k} + \delta_{11GDPPC} GDPPC_{t-1} + \omega_{11GDPPC} DCREDIT_{t-1} + \\ & \rho_{11GDPPC} EXTDEBT_{t-1} + \varphi_{11t} \end{aligned} \tag{2}$$

Where:

Δ stands for change, μ denotes the drift and φ is the error term. Y represents short-run coefficients while the long-run multiplier is specified as δ, ω and ρ .

The study’s prior expectation was that there is a long-run relationship between domestic credit and economic growth. Furthermore, external debt is expected to create long-run economic growth uncertainty. The first step of the analysis was to perform descriptive statistics to quantify and describe the basic characteristics of our data set. The next step includes a battery of econometrics techniques tests such as des unit root, cointegration, ARDL, diagnostic and stability test.

3.2.1 Unit root test

The study used the Augmented Dickey-Fuller (1981) and Phillips-Perron (1998) tests to establish the level of integration.

3.2.2 ARDL cointegration

The ARDL bounds testing technique for cointegration was used to obtain consistency in the sample observation and was also discovered by Pesaran and Shin (1999) and Camba et al. (2020). The ARDL bounds test approach to cointegration helps in classifying the cointegrating vector(s) for each underlying variables to stand as a single long-run relationship equation. This test has the capacity to expose long-run cointegration among selected study variables. The study applied this test to investigate the long run cointegration association of domestic credit and debt on the economic growth of South Africa.

To back up the achieved outcome, the study also employed the generalised F-statistics test by considering the results for the null hypothesis. The I (0) and I (1) bounds were observed to interpret the critical bounds within the lower and upper bounds (Pesaran, Shin & Smith 2001; Narayan & Smith 2005; Camba et al. 2020). After the computation of the F-statistics, the lower and upper bounds validate whether there is cointegration or is no cointegration. If the F-statistics exceed the upper bound, it means there is long-run cointegration. Furthermore, it supports that there is a long-run equilibrium relationship despite their order of integration. Therefore, the null hypothesis is rejected, and the alternative is accepted. However, if the F-statistics is detected below the lower bound, it means there is no evidence of long-run cointegration among variables. The short-run results were applied to detect the speed of the vector error correction of the models.

3.2.3 Stability tests

According to Emire and Bekun (2019), the Cumulative Sum and Cumulative Sum of Squares are crucial to detect model stability.

4. THE EMPIRICAL RESULTS AND DISCUSSION

This section presents the results of all the econometric analyses discussed in the previous section. The first step in the analysis was the descriptive statistics, unit root, ARDL cointegration bound test, ARDL long-run and short-run models and stability testing.

4.1 Descriptive statistics test results

The outcomes of the descriptive test quantify and describe the basic characteristics the GDP growth, GDP per capita, domestic credit by the private sector to banks and external debt are presented as follows,

Table 1: Descriptive statistics

| Statistics | LGDPGRW | LGDPCC | LDCREDT | LEXTDEBT |
|--------------|---------|--------|---------|----------|
| Mean | 2.24 | 1.09 | 61.68 | 31.37 |
| Median | 2.70 | 1.79 | 61.55 | 27.78 |
| Minimum | -6.34 | -7.48 | 50.12 | 15.87 |
| Maximum | 5.60 | 4.59 | 70.38 | 53.18 |
| Std. Dev | 2.66 | 2.73 | 4.77 | 11.95 |
| Skewness | -1.56 | -1.42 | -0.33 | 0.40 |
| Kurtosis | 6.25 | 5.72 | 3.40 | 1.81 |
| Jarque-Bera | 17.86 | 13.54 | 0.54 | 1.81 |
| Probability | 0.00 | 0.00 | 0.76 | 0.40 |
| Sum | 47.12 | 23.02 | 1295.28 | 656.81 |
| Sum Sq. Dev | 142.18 | 149.45 | 456.18 | 2857.57 |
| Observations | 21 | 21 | 21 | 21 |

Source: Authors' computation

The study presents the average values (2.24, 1.09, 61.68 & 31.37) percent in that order. Based on the Jarque-Bera normality test results, the South Africa data display a poor distribution of GDP growth and GDP per capita compared to a good distribution of domestic credit by the private sector to banks and external debt over the period 2000-2020. The dependent variable's non-standard distribution is supported by a negative skewness of less than 0.05. However, GDP growth and GDP per capita vary by a ratio (2.66, 2.73).

4.2 Unit root tests results

The outcomes of the unit root test results are summarised in Table 2 as follows,

Table 2: ADF and PP unit root tests results

| Variables | Model specification | ADF test statistic | | PP test statistic | |
|-----------|---------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | | Stationarity at level, $I(0)$ | Stationarity at level, $I(1)$ | Stationarity at level, $I(0)$ | Stationarity at level, $I(1)$ |
| LGDPGRW | Intercept | -1.05 | -6.74*** | -2.85 | -6.87*** |
| | Trend & intercept | -4.19 | -6.74*** | -4.21 | -6.87*** |

| Variables | Model specification | ADF test statistic | | PP test statistic | |
|-----------|---------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | | Stationarity at level, $I(0)$ | Stationarity at level, $I(1)$ | Stationarity at level, $I(0)$ | Stationarity at level, $I(1)$ |
| LGDPPC | Intercept | -9.98 | -5.65*** | -2.00 | -5.62*** |
| | Trend & intercept | -1.74 | -5.66*** | -1.86 | -5.62*** |
| LDCREDIT | Intercept | -4.18 | -4.48*** | -2.49 | -5.33*** |
| | Trend & intercept | -4.26 | -4.44*** | -2.44 | -5.18*** |
| LEXTDEBT | Intercept | -0.27 | -4.46*** | -0.49 | -4.62*** |
| | Trend & intercept | -6.29 | -4.37*** | -2.35 | -4.75*** |

Note: *, **, *** denotes rejection of the null hypothesis at 10%, 5% and 1%

Source: Authors’ computation

As indicated in Table 2 the stationarity of variables was discovered at the intercept and trend and intercept once after differencing at a 1% level of significance (Dickey-Fuller, 1981 & Phillips-Perron, 1998). The null hypothesis of non-stationarity was rejected in recognition of the alternative hypothesis that there is stationarity. In line with Pesaran and Smith (1999) and Camba, et al., (2020), the outcome permits the ARDL cointegration to be performed.

4.3 Autoregressive distributed lag cointegration bounds results.

The ARDL cointegration bound test outcomes are presented as follows,

Table 3: ARDL cointegration F-bounds results

| | | Model F-statistic | | |
|--------------------|--------------------------|-------------------|------------------|------------------|
| Model 1 | GDPGRW, DCREDIT, EXTDEBT | 9.34 | | |
| Model 2 | GDPPC, DCREDIT, EXTDEBT | 1.71 | | |
| | Value | Significance | I(0):Lower bound | I(1):Upper bound |
| Asymptotic: n=1000 | | | | |
| | | 10% | 3.17 | 4.14 |
| K | 3 | 5% | 3.79 | 4.85 |
| | | 1% | 5.15 | 6.36 |

Source: Authors’ computation

The cointegration outcomes in Table 3 indicate that Model_1 outcome fulfils the cointegration requirement by revealing the long-run relationship among the variables. The F-statistic of 9.34 exceeded the 5.15 lower bound and 6.36 upper bound test results at the 1% level of significance when the GDPGRW is the dependent variable. On the other hand, Model_2 outcome reveals a weak level of cointegration in the long-run relationship. The F-statistic of 1.71 is lower than the calculated lower bound and upper bound test results at all levels of significance when the GDPPC is the dependent variable. The ARDL cointegration results reject the null hypothesis of no cointegration relationship for Model_1 and accept the no cointegration relationship for Model_2.

4.4 ARDL long-run models results.

ARDL was also used to investigate the long run cointegration association of domestic credit and debt on the economic growth of South Africa and the results are presented in Table 4 as follows,

Table 4: ARDL long-run results

| Dependent variable | LGDPGRW | | | | LGDPPC | | | |
|--------------------|-------------|------------|-------------|-------|-------------|------------|-------------|-------|
| | Coefficient | Std. Error | t-Statistic | Prob. | Coefficient | Std. Error | t-Statistic | Prob. |
| LDCREDIT | 1.11 | 1.72 | 0.64 | 0.52 | -0.13 | 2.59 | -0.05 | 0.96 |
| LEXTDEBT | -2.28 | 0.61 | -3.72 | 0.00 | -0.99 | 0.88 | -1.12 | 0.27 |

Source: Authors' computation

ARDL long-run equations:

$$LGDPGRW = 1.11 LDCREDIT - 2.28 LEXTDEBT \quad (3)$$

$$LGDPPC = -0.13 LDCREDIT - 0.99 LEXTDEBT \quad (4)$$

The ARDL long-run equation results in Table 4 reveal that domestic credit by the private sector to banks has a positive impact of 1.11% on GDP growth and a negative impact of -0.13% on GDP per capita. This symbolises that a 1% increase in domestic credit by the private sector to banks increases GDP growth and decreases GDP per capita by -0.13%. However, domestic credit by the private sector to banks is insignificant at a 5% level. The outcomes of this study are in line with Camba et al. (2020) who revealed that the Philippines' domestic credit influenced economic growth between 1995-2018. However, domestic credit also failed to influence the GDP per capita growth of the country within the same period. On the other hand, Rana et al. (2015) found that domestic credit failed to foster economic growth in South Asian countries from 1980-2012.

Furthermore, the results indicate that external debt has a negative impact of 2.28% on GDP growth and a negative impact of -0.99% on GDP per capita growth. This implies that external debt decreases both GDP growth and GDP per capita by 1%. Although GDP growth is significant towards the country's economic growth by 0.00%, these findings are in line with Megersa et al. (2015), who established a negative connection between public debt and economic growth in developing countries. Conversely, the current study contradicts Ndubuisi (2017) who revealed that external debt has a long-run relationship to a country's economic growth. Such results also refute the feedback hypothesis that postulates a bidirectional connection between financial depth and economic growth. The theory stipulates that financial depth can be used to supplement and support economic growth in a well-organised economy by creating joint contributions (Demetriades et al. 1996; Pradhan et al. 2013; Rudra et al. 2017).

Based on the probability values obtained in Table 4, the GDP per capita variable is contrary to improving the economic growth of South Africa. Both domestic credit by the private sector to banks and external debt spur undesirable incentives from 2000 to 2020, meaning that there is poor support for economic growth (GDP growth and GDP per capita) from both domestic credits by the private sector to banks and external debt in South Africa.

4.5 ARDL short-run error correction term results

The short-run analysis was done to determine the speed of adjustment complement and supports the long-run cointegration.

Table 5: ARDL short-run results

| Dependent variable | LGDPGRW | | | | LGDPPC | | | |
|--------------------|-------------|------------|-------------|-------|-------------|------------|-------------|-------|
| | Coefficient | Std. Error | t-Statistic | Prob. | Coefficient | Std. Error | t-Statistic | Prob. |
| LDCREDIT | 0.68 | 1.02 | 0.66 | 0.51 | -0.18 | 3.63 | -0.05 | 0.96 |
| LEXTDEBT | -1.40 | 0.21 | -6.39 | 0.00 | -1.37 | 0.78 | -1.74 | 0.09 |
| Coin Eq (-1) | -1.63 | 0.00 | | | -0.72 | 0.02 | | |

Source: Authors’ computation

ARDL short-run equations:

$$LGDPGRW = 0.68 LDCREDIT - 1.40 LEXTDEBT \tag{5}$$

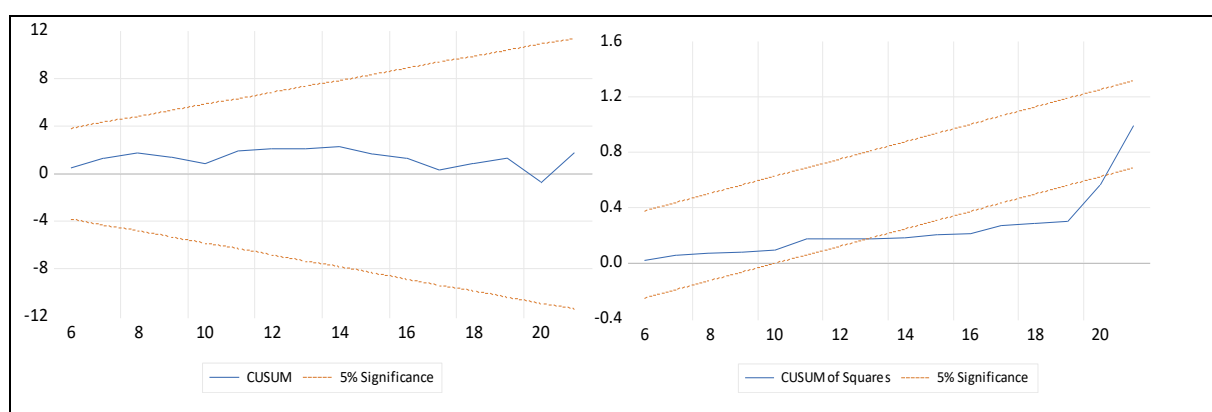
$$LGDPPC = -0.18 LDCREDIT - 1.37 LEXTDEBT \tag{6}$$

The short-run focus reveals that both GDP growth and GDP per capita are statistically significant at 0.01 and 0.05. Although their speed of adjustment towards equilibrium varies, the GDP growth will be corrected by -1.63, while GDP per capita will use a -0.72 speed of adjustment towards equilibrium, respectively. This implies that when GDP growth is the dependent variable, an abnormal speed of 163% will be used and when GDP per capita is the dependent variable, the adjustment to equilibrium will be obtained at a speed of 72%. The current study findings are like Camba et al. (2020) who reported that GDP growth uses a higher speed to adjust to equilibrium.

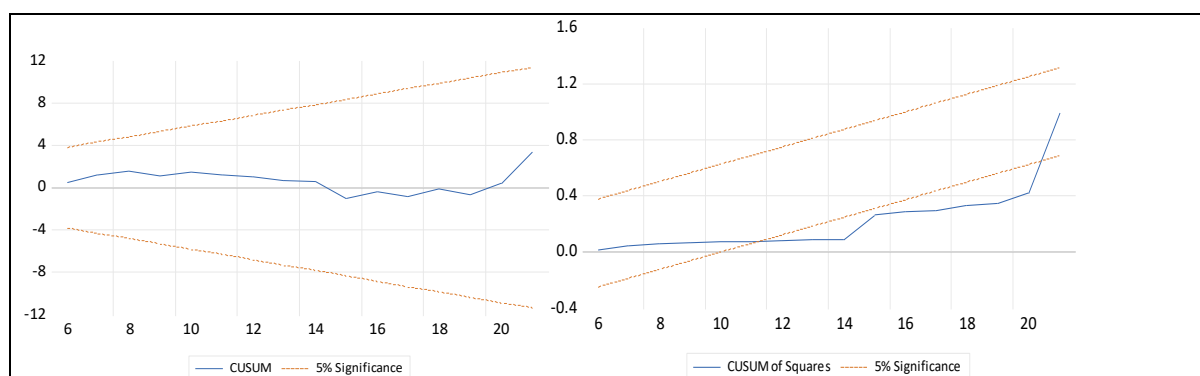
4.6 Diagnostic test results

The diagnostic tests were conducted to determine the stability of the models within the 0.05 trend line.

Figure 1: Stability test outcomes for Model_1



Source: Authors’ computation

Figure 2: Stability test outcomes for Model_2

Source: Authors' computation

The results of the CUSUM test for both models indicate a trend within the 5% significance line the entire period, while CUSUM of squares results indicate a sign of instability roughly between 2010 and 2019 but became stable towards the end of the period of study.

5. CONCLUSION AND RECOMMENDATIONS

The aim of the study was to investigate the effects of domestic credit and debt on the economic growth of South Africa, for the periods of 2000-2021. Descriptive statistics analysis, unit root tests, the autoregressive distributed lag cointegration bound test and stability test were utilised. The ARDL cointegration bound test revealed a long-run relationship between the variables when GDP growth is a dependent variable. However, when GDP per capita was used as a proxy for economic growth, a weak cointegrating relationship was established.

This study confirms that domestic credit by the private sector to banks was used to support economic growth through GDP growth, not GDP per capita. Moreover, external debt has a negative influence on South Africa's economic growth using either GDP growth, not GDP per capita, as projected. The results suggest a need for South Africa to gratify the classical model standards and competence, particularly on GDP growth and GDP per capita policies (Gujarati et al. 2009; Camba et al. 2020).

Future studies can be conducted on investigating domestic credit by the private sector to banks and debt on the economic growth of South Africa, including central government credit and debt to see if South Africa's economic growth can be improved.

REFERENCES

- Lidiema, Caspah (2017). Effects of government borrowing on private investments in Kenya, *KBA Centre for Research on Financial Markets and Policy Working Paper Series*, No. 22, Kenya Bankers Association (KBA), Nairobi.
- Usman, K. (2023). The linkages between trade, financial openness, and economic growth in China: an ARDL-bound test approach. *Journal of Applied Economics*, 26(1), p.2258616.
- Abubakar, A.B., & Mamman, S.O. (2020). Permanent and transitory effect of public debt on economic growth. *Journal of Economic Studies*.

-
- Acharya, P. (2015). *The variance decomposition of GDP, domestic credit and exports of Nepal: A VAR approach* (No. 28/2015). Nepal Rastra Bank, Research Department.
- Ajayi, I., & Edewusi, D. (2020). Effect of public debt on the economic growth of Nigeria: An empirical investigation. *International Journal of Business and Management Review*, 8(1), pp.18-38.
- Ajayi, I., & Edewusi, D. (2020). Effect of public debt on the economic growth of Nigeria: An empirical investigation. *International Journal of Business and Management Review*, 8(1), pp.18-38.
- Alter, A, Feng, A.X., & Valckx, N. (2018). *Understanding the macro-financial effects of household debt: A global perspective*. IMF Working Papers, WP/18/76.
- Arcand, J.L., Berkes, E., & Panizza, U. (2015) ‘Too much finance?’, *Journal of Economic Growth*, 20, pp.105–148.
- Armstrong-Taylor, P. (2019). China’s fragile economy: A story of peclining Productivity and growing debt. *Georgetown Journal of International Affairs*, 20, pp.133-141.
- Bezemer, D, Ryan-Collins, J, van Lerven, F., & Zhang, L. (2021). Credit policy and the ‘debt shift’ in advanced economies. *Socio-Economic Review*, 21(1), pp. 437–478.
- Camba Jr, A.C., & Camba, A.L. (2020). The dynamic relationship of domestic credit and stock market liquidity on the economic growth of the Philippines. *The Journal of Asian Finance, Economics and Business*, 7(1), pp.37-46.
- Chandavarkar, A. (1992). Of finance and development: Neglected and unsettled questions. *World Development*, 20(1), pp.133-142.
- Demetriades, P.O., & Hussein, K.A. (1996). Does financial development cause economic growth? Time-series evidence from 16 countries. *Journal of Development Economics*, 51(2), pp.387-411.
- Dickey, D. A., & Fuller, W.A. (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica: Journal of the Econometric Society*, 49(4), pp.1057–1072.
- Emir, F., & Bekun, F.V. (2019). Energy intensity, carbon emissions, renewable energy, and economic growth nexus: New insights from Romania. *Energy & Environment*, 30(3), pp.427-443.
- Fatoki, O., & Muoki, V. (2021). *Effects of public debt on the economic growth of East African countries*.
- Fatoki, O., & Muoki, V.M. (2021). *Effects of public debt on the economic growth of East African countries* (Doctoral dissertation, KCA University).
- Festus, G. E., & Saibu, M.O. (2019). Effect of external debt on Nigerian Economy: Further evidence.
- Fosu, A.K., & Abass, A.F. (2019). Domestic credit and export diversification: Africa from a global perspective. *Journal of African Business*, 20(2), pp.160-179.
- Guei, K. (2019). External debt and growth in emerging economies. *International Economic Journal*, 33(2), pp.236–251.
- Gujarati, D.N., & Porter, D.C. (2009). Causality in economics: The Granger causality test. *Basic Econometrics (Fifth international ed.)*. New York: McGraw-Hill, 652.
-

-
- Ibrahim, M., & Alagidede, P. (2017). Financial sector development, economic volatility and shocks in sub-Saharan Africa. *Physical A: Statistical mechanics and its applications*, 484, pp.66-81.
- Jones, E., & Knaack, P. (2019). Global financial regulation: Shortcomings and reform options. *Global Policy*, 10(2), pp.193-206.
- Jung, W.S. (1986). Financial development and economic growth: International evidence. *Economic Development and Cultural Change*, 34(2), pp.333-346.
- King, R.G., & Levine, R. (1993). Finance and growth: Schumpeter might be right. *The Quarterly Journal of Economics*, 108(3), pp.717-737.
- Kiptui, L. (2020). Debt and economic growth in Kenya: An analysis before COVID-19.
- Liu, T.Y., & Lee, C. C. (2018). Testing explosive behaviour of public debt in OECD countries. *The Journal of International Trade & Economic Development*, 27(7), pp.761-791.
- Megersa, K., & Cassimon, D. (2015). Public debt, economic growth, and public sector management in developing countries: Is there a link? *Public Administration and Development*, 35(5), pp.329-346.
- Musyoka, G. (2017). The effect of public debt on economic growth in Kenya (PhD Thesis). University of Nairobi.
- Ndubuisi, P. (2017). Analysis of the impact of external debt on economic growth in an emerging economy: Evidence from Nigeria. *African Research Review*, 11(4), pp.156-173.
- Odhiambo, N. M. (2008). Financial depth, savings and economic growth in Kenya: A dynamic causal linkage. *Economic Modelling*, 25(4), pp.704-713.
- Patra, S., & Dastidar, S.G. (2018). Finance and growth: Evidence from South Asia. *Jindal Journal of Business Research*, 7(1), pp.37-60.
- Pegkas, P. (2018). The effect of government debt and other determinants on economic growth. *The Greek Experience Economies*, 6(1), p.10.
- Pesaran, M.H., Shin, Y., & Smith, R.J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3), pp.289-326.
- Pesaran, M.H., Shin, Y., & Smith, R.P. (1999). Pooled mean group estimation of dynamic heterogeneous panels. *Journal of the American Statistical Association*, 94(446), pp.621-634.
- Phillips, P. C., & Perron, P. (1988). Testing for a unit root in time series regression. *Biometrika*, 75(2), pp.335-346.
- Pradhan, J.P. (2011). Emerging multinationals: A comparison of Chinese and Indian outward foreign direct investment. *Institutions and Economies*, pp.113-148.
- Pradhan, R.P., & Gunashekar, A. (2013). Finance-growth nexus in select Asian countries. *IUP Journal of Applied Finance*, 19(3), p.39.
- Pradhan, R.P., Nishigaki, Y., & Hall, J.H. (2017). The multivariate dynamic causal relations between financial depth, inflation, and economic growth. *Philippine Review of Economics*, 54(1), pp.63-93.
- Quartey, P., & Prah, F. (2008). Financial development and economic growth in Ghana: Is there a causal link? *African Finance Journal*, 10(1), pp.28-54.
-

-
- Rahman, M.M., Rana, R.H., & Barua, S. (2019). The drivers of economic growth in South Asia: Evidence from a dynamic system GMM approach. *Journal of Economic Studies*, 46(3), pp.564-577.
- Rana, R., & Barua, S. (2015). Financial development and economic growth: Evidence from a panel study on South Asian Countries. *Asian Economic and Financial Review*, 5(10), pp.1159-1173.
- Rousseau, P., & Wachtel, P. (2017). Episodes of financial deepening: Credit booms or growth generators? *Financial Systems and Economic Growth*, 52, pp.52-75, <https://doi.org/10.1017/9781316493281.003>
- Rudra, P., Nishigaki, Y., & Hall, H. (2017). The multivariate dynamic causal relations between financial depth, inflation, and economic growth. *The Philippine Review of Economics*, 54(1), pp.63-93.
- Senadza, B., Fiagbe, K., & Quartey, P. (2017). The effect of external debt on economic growth in Sub-Saharan Africa. *International Journal of Business and Economic Sciences Applied Research (IJBESAR)*, 11(1).
- Shaw, E.S. (1973). *Financial deepening in economic development*. Oxford University Press, New York.
- Wamba, L.D., Hikkerova, L., Sahut, J.M., & Braune, E. (2017). Indebtedness for young companies: Effects on survival. *Entrepreneurship & Regional Development*, 29(1-2), pp.174-196.
- Karoney, C.N.J. (2018). Impact of public debt on economic growth: Case study-Kenya. *Strathmore Institute of Mathematical Sciences*, Strathmore University Nairobi, Kenya.

SSIRC 2023-141**AN ANALYSIS ON THE EFFICACY OF SOUTH AFRICA'S CHAPTER 9 INSTITUTIONS IN UPHOLDING THEIR DEMOCRATIC MANDATE: A CASE OF THE SOUTH AFRICAN HUMAN RIGHTS COMMISSION (SAHRC)****P. Molefe**

University of Limpopo, South Africa

ABSTRACT

South Africa, in its internationally acclaimed Constitution, has established Chapter 9 institutions for the protection and support of its democratic state. Thus, through these institutions, the citizenry, and the nation at large ought to enjoy the fruits of democracy. mandate: in recent years, observations have been made where instead of these institutions working towards the fulfilment of the democratic mandate; they are being used for political squabbles and gains. The *Economist Intelligence Unit Limited* in their Democracy Index 2022 highlighted South Africa's democratic regime as a "flawed democracy" owing to challenges in governance, underdeveloped political culture as well as low levels of political participation. The study relied on a qualitative desktop study to review and analyse both primary and secondary data relevant to the study's purpose, which was to make inferences on the efficacy of the SAHRC in upholding their democratic mandate. With the chosen methodology, some of the findings the study made are around the fact that Chapter 9 institutions do not work in isolation from other institutions in government and therefore, the realisation and uphold of their democratic mandate is influenced by and relies on the associated institutions such as municipalities, government departments and others. Thus, in instances where these associated institutions do not create an environment for the realisation of the democratic mandate, it leaves room to question the efficacy of the Chapter 9 institutions. Notwithstanding, the many challenges that South Africa's democracy faces, the country has pockets of success stories through its Chapter 9 institutions.

KEYWORDS: Chapter 9 institutions, Democracy, South Africa, Constitution, South African Human Rights Commission

INTRODUCTION

The year was 1994 when *the bell rang*, and it was the dawn of democracy for South Africans; this bell carried with it the winds of change; hope; a better life and equality that many thought they would enjoy (Pollard iii, 1994; RSA, 1996). The change in systems, from apartheid to democracy, gave South Africans, especially the black South Africans, hope that things would change and that all the injustices they had endured during the apartheid era were now ending (Jacobs, 2018). To a certain extent, the latter has been realised for some South Africans, while others still impatiently wait for their turn to get services and dignity (Levy, Hirsch, Naidoo & Nxele, 2021). It seems the train in the direction of a better life, dignity, access to basic services, and equality is not insight, as the citizenry are taking up their constitutional right to protest for basic services and equality. Hence, the World Bank in Haffajee (2018) shows that in 2013, South Africa was recorded as the

most unequal democratic state amongst 101 countries. Furthermore, when comparing the Gini index margin of 38 countries, the democratic state is sitting at over 60 (Haffajee, 2018). As it stands, South Africa is said to be the most unequal state with two classes of citizens – “the haves” and the “have-nots” resulting in the erosion of enthusiasm around democracy, especially for the “have-nots” (Rampele, 2001; Mattes, 2002; Ebekue, 2018).

A democratic dispensation is characterised by a growing economy that steadily reduces inequality, has stable and predictable political institutions, and a supportive political culture (Mattes, 2002; Kotschy & Sunde, 2017). However, one could wonder how a democratic country with various State Institutions Supporting Constitutional Democracy still lags on the total embrace of what characterises a democratic dispensation (Tshishonga, 2019). Although not enough, South Africa has made some progress in improving the lives of its citizens through access to education and health care, service delivery and others. However, the recent high figures of unemployment; the unbalanced socio-economic status; the backward growing economy; the frequent racial attack incidents; the collapse of the state’s health systems; the panics around social grants; court cases between the state and the citizenry; worrying levels of corruption; and a despondent public, raise some concerns about the efficacy of the Chapter 9 institutions in upholding the democratic mandate and fulfilling the aforementioned democratic characteristics (Tshishonga, 2019; Tiechmann, 2022). Therefore, the purpose of the study is to probe and unpack the efficiency of a Chapter 9 institutions (SAHRC) in upholding its constitutional democratic mandate.

THEORETICAL UNDERPINNING OF THE STUDY

The theory that underpins this study is the theory of expectations. Although this theory is more dominant in the space of economics, particularly on investments and returns based on previous trends (Angeletos, Huo & Sastry, 2021; Curtin, 2022), Curtin (2022) argues that expectations are essential for understanding the choices of individuals. Furthermore, the latter statement is emphasised by stating that decisions that individuals make about their future are mainly based on their expectations. However, expectations have the potential to not produce expected results, and when such happens – people are left unsatisfied and unhappy (Swamidass, 2000). Thus, this theory is relevant to what the study aims to discuss in respect of the efficacy of the selected South Africa’s Chapter 9 institutions in upholding their democratic mandate. Have these institutions been efficient in meeting the citizenry’s expectations on democracy?

LITERATURE REVIEW

South Africa’s democracy as a matter of “system of governance”

South Africa is a democratic country with a constitution hailed as one of the best in the world; the very Constitution is considered the strength of the democracy and the Bill of Rights (Hassim, Heywood & Berger, 2007). Considering the apartheid history that South Africa endured from 1949 until 1994, the country adopted a participatory democracy wherein its citizenry could participate in political governance; hold the government accountable; live with dignity and as equals (Kyriazis & Karayiannis, 2011; Kotschy & Sunde, 2017). Democracy, as it were, is established, founded, and grounded in values and principles, the same as South Africa’s institution of democracy

(Tiechmann, 2022). Some of the democratic principles which govern public governance in the democratic state are the promotion of efficient, economic, and efficient use of resources; responding to people's needs and encouraging the public to participate in policy making; ensuring the accountability of public administration and fostering transparency by providing the public with timely, accessible, and accurate information (Hassim et al, 2007; RSA, 1996). However, in the 28 years of South Africa's democracy, certain incidents challenged some of the democratic principles, the Constitution, and its Chapter 9 institutions (Jacobs, 2018; Tiechmann, 2022). Although the Constitution provides for different rights and responsibilities in its Bill of Rights, the way South Africans exercise their rights raises eyebrows given all the provisions. Perhaps, some of the questionable activities are because of dissatisfaction with the fruits borne by democracy, more so with democracy not being an easy route to manoeuvre and probably the lack of proper transitioning from apartheid to democracy (Tshishonga, 2019).



Figure 1. An illustration of SA's road to democracy
Cartoon by Zapiro, Mail & Guardian © 2012. All rights reserved.

The advent of South Africa's democracy was accompanied by an internationally acclaimed Constitution through which, the democratic mandate and aspirations are outlined (RSA, 1996). Notwithstanding the outlined democratic mandate and aspirations, the level of inequality between the elites and the ordinary citizens continues to grow to a point where a majority of the citizenry continues to struggle with high levels of poverty, unemployment, and unbalanced socio-economic status amongst many others (Islam, 2018; Maphanga, Katumba, Breetzkea & Cheruiyot, 2023). Jacobs (2018) highlighted that South Africa's democracy faces many kinds of stresses, many of which are self-inflicted with political factions that undermine the ability to effectively govern. South Africa's democracy is battling with the increasing threats to institutional integrity and the tension between these institutions and the high levels of inequality accompanied by the distribution

of economic and political power seem to heighten the questioning of the legitimacy of its democracy (Levy, Hirsch, Naidoo & Nxele, 2021).

The dawn of democracy in 1994 gave South Africans hope for a better life, more like how the Israelites travelled from Egypt and ultimately arrived at the Promised Land, a place of milk and honey (Jacobs, 2018). But, without any form of preparation on how the road will be, South Africans had to undertake the democratic journey. After 28 years of travelling the democratic journey, the citizenry is showing signs of dissatisfaction with the fruits of democracy, as the transformation that it was promised and therefore expected seems to be enjoyed only amongst the elites and politically connected while the majority are still subjected to the growing inequality gap; little or no respect for human life; in essence, the poor continuing to struggle in the hands of their democratic electives (Islam, 2018; Jacobs, 2018; Maphanga, Katumba, Breetzkea & Cheruiyot, 2023). According to Tshishonga (2019), even though South Africa's democracy has been institutionalised through the Constitution, it is unable to address the socio-economic and political challenges experienced.

Democracy comes with great expectations, and so does South Africa's democracy. However, Murray (2006) highlights the fact that South Africa's democracy, through its government, is faced with some tough challenges such as huge needs and expectations with limited human capacity, the fact that South Africa is a one-party dominant state, which brings with it the danger that the party comes to feel like it owns the system and pays limited attention to the opposition or even the voters. Levy, Hirsch, Naidoo and Nxele (2021), concur with the latter by highlighting the clash that exists between the institutional provisions and the high rising levels of inequality together with the unfair distribution of economic and political powers. Thus, the relationship between officials and the citizenry is that of distrust and intolerance, and yet, the democratic institutions should be inculcating the spirit of trust and faith in their voters and citizenry (Murray, 2006; Zikode, 2018; Tiechmann, 2022).

A liberal democracy like that of South Africa has great challenges wherein the inequality gap is worrying, and the current state of democracy is a great concern with the rich getting richer and the poor getting poorer. Exacerbating the problem is the questionable spending spree of state officials sponsored by the taxpayer. This suggests a culture of "politics of the belly" where staff officials put their needs and wants before those of the citizens, they represent contrary to "serving the will of the people" (Fengu, 2018; Islam, 2018; Mokone, 2018; Skiti, 2018). Wagner, Schneider and Halla (2009) and Jacobs (2019) proffer that, high-quality institutions like the rule of law, well-functioning regulation, low corruption, and other institutions that improve resource allocation have a positive effect on an average satisfaction with democracy. In support of the latter, the absence of the former leads to frustrated, angry, and despondent citizenry (Tshishonga, 2019). However, the country's governance has shown signs of disjuncture between the government and its citizens, which is a cause for concern for a democratic state with one of the best Constitutions in the world. Hence, Lubisi (2018) argues that the government needs to improve how it interacts with the citizens who need services through civil servants.

Villoro, 1998 in Tsheola et al. (2014) refer to democracy as an ideal of a political association, which invokes a deeper meaning of its being about the power of the people with its popular conception as merely a system of governance. The citizenry's sense of despondency leaves room for one to assume that South Africa's democracy is more of a "system of governance" than anything. Although informal settlements are a global problem, their persistent mushrooming, and the constant "service delivery" protests in a democratic South Africa suggest poor planning, low economic growth, poor maintenance, and failure in development planning (Tsheola et al, 2014; Cele, 2018; Nhlabathi & Cele, 2018; Tebane, 2018). Teichmann (2022) acknowledges that indeed, South Africa meets formal requirements for a democracy, such as regular free and fair elections, public consultation, the assurance of basic human rights and liberties, and the separation of powers. However, there may be significant divergence between formal requirements for a democracy and the quality of democracy experienced by the citizenry.

Public participation, service delivery, access to quality and dignified health care and citizenry equality are some of the constitutional rights provided for in a democratic dispensation. The realisation of these rights remains under scrutiny due to the discrepancy in democratic policy provision and practice (Tshishonga, 2019; Tiechmann, 2022). Hence, a rise in questions about the legitimacy and certainty of South Africa's democracy amid Chapter 9 institutions prevail (Tsheola, Ramonyai and Segage, 2014). Seemingly, the citizenry has lost faith and hope in the leaders they have put in power through the democratic election system. The latter is evident in the current perception of the citizenry around practicing their constitutional right to vote, where they no longer believe in the "power of the ballot" (Govender, 2018; Mkhondo, 2018; Albertson & Guiler, 2020). Moreover, the scourge of violent protests, rebellion of the poor, voter apathy, the widening of the inequality gap, patronage, and rent seeking are great signs of an uncertain democracy (Tsheola et al, 2014; Maxon, 2017; Islam, 2018), that being the case in South Africa. Mthomboti (2018) and Mkhondo (2018) alluded to the sentiments around referendums as a way of rejuvenating South Africa's jaded democracy, as the Constitution is showing signs of wear and tear in that it has arrived at a point where politicians and policymakers do as they please and the citizenry watch from the sidelines, powerless; the democratic values of effective participation, transparency, responsiveness, inclusiveness and accountability as embodied in the Constitution liken a fantasy in current South Africa.

Chapter 9 institutions for the attainment of democratic goals

The Constitution of the republic of South Africa, has its Chapter 9 as the state institutions supporting constitutional democracy, which was established to strengthen constitutional democracy and ensure the full realisation of democratic principles such as accountability; respect for the rule of law, and the human rights, the institutions are: The Public Protector; SAHRC; The Commission for the Promotion and Protection of the Rights of Cultural, Religious and Linguistic Communities; The Commission for Gender Equality; The Auditor-General and the Electoral Commission, all are responsible for different functions and mandates (RSA, 1996; Sithebe, 2014). However, the efficacy and accountability of these institutions has been questioned in view of the characteristics of a constitutional democracy due to some level of nonconformity to their functions

(Sithebe, 2014; Levy, et al, 2021). Aarts and Thomassen (2008) believe that through these institutions, a sense of citizenry satisfaction with democracy is inculcated, as they are linked to representativeness, accountability, and functions of democracy. Contrary to the latter, South African citizens have resorted to their constitutional right to protest to raise concerns about the lack of accountability and representation from their government.

The Constitution of the Republic of South Africa further states that the Chapter 9 institutions are independent and are subjected only to the Constitution and the law to exercise their powers and perform their functions without fear, favour, or prejudice (RSA, 1996; Murray, 2006). The sincerity of independence, the exercise of power and the performance of tasks by these institutions is testable through the citizenry's voice and feeling (Aarts & Thomassen, 2008; Wagner, Schneider & Halla, 2009). However, the contemporary feel and trust of the citizenry around some of these institutions is unsatisfactorily worrying. Hence, the critics around these institutions' efficacy, functions, independence, role, and responsibilities: officials being prejudiced; how business is handled; work prioritisation; ineffective management; mismanagement of funds and political squabbles (Jacobs, 2018). Murray (2006) further argues that if these institutions are independent as they should be, they can provide a reliable voice for the people, unburdened by political exigencies and stakes, leading to their contribution to the transformation programme to which the Constitution commits. Largely, there is a great discrepancy between constitutional provision and practice. Hence, the mismatch in what should be delivered and what is delivered. Maxon (2017) raises a pertinent question on whether South Africa is on a journey to becoming a dictatorship and slipping away from democracy, due to patronage and rent-seeking that benefits the friends and family of the elite, despite the presence of the Chapter 9 institutions. Because of the latter, the ever-widening polarisation of wealth has been created, where the rich are getting richer, and the poor poorer, and social conditions change to a point where the exploited classes suddenly start demanding or exhibiting acts of anarchy as witnessed in recent years (Levy, et al, 2021).

Chapter 9 institutions are mandated to uphold the principles and values of democracy. Yet, the mismatch between the institutional mandate and practice raises eyebrows (Tiechmann, 2022). This study focused on the SAHRC as the selected institution. According the 2015 Parliamentary AD Hoc Committee on the review of Chapter 9 and associated institutions, the Chapter 9 institutions are, amongst other things, ought to assist with restoring the credibility of the state and its institutions in the eyes of most of its citizens; ensuring that democracy and the values associated with human rights and democracy flourish in the new dispensation; ensuring the successful re-establishment of, and continued respect for, the rule of law; and ensuring that the state becomes more open and responsive to the needs of its citizens and more respectful of their rights.

SAHRC

Established to promote respect for, the protection, development, and attainment of as well as to monitor and assess the observance of human rights in the republic without fear or favour (RSA, 1996), this office ought to facilitate the realisation of the Bill of Rights provisions concerning housing; health care; food; water; social security; education and the environment (RSA, 1996). The mushrooming of informal settlements suggests the inability of the democratic institutions to

execute their roles effectively and efficiently in line with the provision of housing and services. Hence, the conception of many human rights campaigns and activists (*i.e.*, *Abahlali baseMjondolo*, *Treatment Action Campaign*, *The Cancer Association of South Africa*). Even after 28 years of democracy, the citizenry still yearns for a life of dignity and a society characterised by equality and justice (Govender, 2018). The Life Esidimeni tragedy paints a very gloomy picture of the health system, and the impression of respect for human life in democratic South Africa, particularly the state health care system. In fact, the then Health Minister, Dr Aaron Motsoaledi, confirmed that the country's health system is in a crisis at a briefing on June 05, 2018. Child (2018 a; b) elaborates on the crisis by stating that hospitals have non-functional machines and must send patients home without treatment. Notwithstanding that protests are a democratic right with the responsibility not to interfere with the rights of others, the protests that took place in Charlotte Maxeke Hospital, Taung District Hospital, Potchefstroom Hospital, Dr Ruth Segomotsi Mompati District Hospital and Zeerust Hospital confirm the collapse of the health system, as many people were denied access to basic services due to protests (Child, 2018 b; Mkize, 2018).

Malakoane, Heunis, Chikobvu, Kigozi and Kruger (2020) locate some of the major health system challenges occurring, including negative staff attitudes, long waiting times, unclean facilities, medicine stock-outs, insufficient infection control and compromised safety and security of both staff and patients. Furthermore, due to the lack of effective governance and leadership, the public sector is said to not have yielded the desired health system performance since the dawn of democracy (Malakoane, Heunis, Chikobvu, Kigozi & Kruger, 2020). The performance of public service institutions determines whether the democratic values and principles are upheld and realised (Kotschy & Sunde, 2017). Thus, the government's relationship with its citizenry through public services is important. Contrary to the latter, the recent cries about poor public services raised by the citizenry have inculcated a spirit of despondency, which should not be the case in a democratic state (Tiechmann, 2022). The democratic institutions and public services should be efficient and caring as an act of decolonisation and commitment to freedom and democracy (Haffajee, 2018; Lubisi, 2018).

In trying to uphold their democratic mandate, the SAHRC have, between the years 2000 to date, established various Acts to support democracy *i.e.*, PAIA (Promote Access to Information Act); the Children's Act and many others. With the establishments of these Acts and other provisions, they have been able to make progress in terms of service provision, protection and inclusion of women, children and people living with disability. However, these Chapter 9 institutions do not work in isolation from other government departments and as a result, their efficacy is measured based on the performance of related public service institutions. The level of accountability, interaction, and representation from institutions such as municipalities is still lagging with non-compliance and a disregard of the democratic policy provisions (SAHRC Annual Report, 2018), be it in terms of the provision of housing or the implementation of certain policies. The 2017/18 SAHRC Annual Report, reported on the decline in the use of equality court – raising concerns about the confidence of the citizens in the court; they also reported on hate speech continuing to be the most pervasive form of discrimination in the country, particularly based on race and the high levels of unemployment being rife among the black population.

CONCLUSION

The provisions in the South Africa's internationally acclaimed Constitution, meet the formal democratic requirements through various institutions. However, the quality of democracy experienced and the will of institutions to serve the citizenry is concerning. The latter does not create an environment for the realisation of the democratic vision projected in the Constitution, thus resulting in the citizens losing faith in the institutions that have been mandated to facilitate democracy. If these institutions presented a level of independence as they should be, they could typify a reliable voice for the people. The absence of the latter leads to doubt around their independence and efficacy in upholding their mandate as well as contributing to transformation. With the current state of South Africa's democracy, there is a great need to rejuvenate the democratic dispensation by restoring the credibility of the state and its institutions in the eyes of its citizens and the state through its institutions becoming more open and responsive to the needs of its citizens and more respectful of their rights. If not, we ought to reflect on compatibility of the democratic institutions to a South Africa with high levels socio-economic inequality and many other social ills. Follow up studies could look at the role played by associated institutions such as municipalities and civil societies in ensuring the total efficacy of Chapter 9 institutions.

REFERENCES

- Aarts, K. & Thomassen, J. (2008). *Satisfaction with democracy: do institutions matter?* Electoral studies, Vol. 27, 5- 18.
- Albertson, B. & Guiler, K. (2020). *Conspiracy theories, election rigging, and support for democratic norms*. Sage Publications.
- Alton B. Pollard, III. (1994). "The dawn of freedom": a South African diary. *Africa Today*, 41(1), 58–64. <http://www.jstor.org/stable/4186962>
- Angeletos, G-M., Huo, Z. & Sastry, K.A. (2021). *Imperfect macroeconomic expectations: evidence and theory*. National Bureau of Economic Research. 978-0-226-80268-8/2020/2020-0101\$10.00.
- Cele, S. (2018). *Fury as R36m is blow on non-existent toilets*. City Press, February 25, 2018.
- Child, K. (2018) a. *Two faces of Qedani: meek and belligerent*. Sunday Times, January 28, 2018.
- Child, K. (2018) b. *State Cancer Patients are sent home to die*. Sunday Times, May 13, 2018.
- Fengu, M. (2018). *State official's spending spree*. City Press, May 6, 2018.
- Govender, S. (2018). *Paying in blood for a shack to call home*. Sunday Times, June 08, 2018.
- Haffajee, F. (2018) a. *Home Affairs holds back the economy. Here's how*. Sunday Times, June 3, 2018.

-
- Haffajee, F. (2018) *b. Judging the 'Cyril effect' after 100 days*. Sunday Times, May 27, 2018.
- Hassim, A. Heywood, M. Berger, J. (2007). *Health and democracy: a guide to human rights*. (eds) health law and policy in post-apartheid South Africa. Cape Town.
- Islam, M.R. (2018). Wealth inequality, democracy, and economic freedom. *Journal of Comparative Economics*. <https://doi.org/10.1016/j.jce.2018.01.002>.
- Jacob, S. (2018). *South Africa's fragile democracy*. Foreign Policy Association.
- Jondean, E. & Ricart, R. (nd). *The expectations theory: tests on French, German and American euro-rates*. Bank for International Settlements.
- Kotschy, R. & Sunde, U. (2017). Democracy, inequality, and institutional quality. *European Economic Review*, 91, 209 – 228.
- Kyriazis, N. & Karayiannis, A. (2011). Democracy, institutional changes, and economic development: a case of ancient Athens. *The Journal of Economic Asymmetries*, 8(1), 61 -91.
- Levy, B., Hirsch, A., Naidoo, V. & Nxele, M. (2021). *South Africa: when strong institutions and massive inequalities collide*. Carnegie Endowment for International Peace.
- Lubisi, D. (2018). *Civil servants not doing their best to serve*. City Press, May 6, 2018.
- Makinana, A. (2017). *Parliament to discuss protector's fitness to hold office*. City Press, October 08, 2017.
- Malakoane, B., Heunis, J.C., Chikobvu, P., Kigozi, N.G. & Kruger, W.H. (2020). *Public health system challenges in the Free State, South Africa: a situation appraisal to inform health system strengthening*. BMC Health Services Research.
- Maphanga, C., Katumba, S., Breetzkea, G. & Cheruiyot, K. (2023). *Examining the relationship between basic service delivery provision and dissatisfaction with the performance of local government in Gauteng (South Africa)*. International Cartographic Association.
- Maxon, C. (2017). *Dictators don't come from the sky patronage and rent-seeking that benefit friends and family are some of the indications of a slide away from democracy*. City Press, October 22, 2017.
- Mkhondo, R. (2018). *Let's put it to a vote – referendums would rejuvenate our jaded democracy*. Sunday Times, June 3, 2018.
- Mkize, V. (2018). *North West's fatal strike*. City Press, May 6, 2018.
- Mokone, T. (2018). *Broke SABC blew R700k on chairman's bling wheels*. Sunday Times, March 18, 2018.
-

- Mthombothi, B. (2018). *House of pandemonium: can parliament ever reclaim its dignity and proper function?* Sunday Times, May 27, 2018.
- Ngcukana, L. (2018). *Busisiwe Mkhwebane 'idiotic' says Eastern Cape DG.* City Press, May 20, 2018.
- Nhlabathi, H. and Cele, S. (2018). *Metros failed to spend millions.* City Press, May 20, 2018.
- Phukubje, M. (2017). *SAPS, Hawks need better Leaders.* City Press, October 22, 2017.
- Ramphela, M. (2011). *Citizenship challenges for South Africa's young democracy.* Daedalus, 130 (1), 1 -17.
- Republic of South Africa (RSA), (1996). *The Constitution of the Republic of South Africa, 1996.* Government Printers, Pretoria.
- Skiti, S. (2018). *Struggling SAA to spend R35m on bodyguards ahead of cuts.* Sunday Times, March 18, 2018.
- Tabane, R. (2018). *Local government: a major headache.*
- Tiechmann, C. (2022). *The state of democracy in south Africa is a cause for concern.* Mail & Guardian, September 16, 2022.
- Tsheola, J.P. Ramonyai, N.P. and Segage, M. (2014). Twenty years of faltering “democracy”: service delivery and public participation in South Africa. *Journal of Public Administration*, 49, (1), 392 – 405.
- Tshishonga, N. (2019). The legacy of apartheid on democracy and citizenship in post-apartheid South Africa: an inclusionary and exclusionary binary. *AFRIKA Journal of Politics, Economics & Society*, 9, (1).
- Wagner, A. F. Schneider, F. & Halla, M. (2009). The quality of institutions and satisfaction with democracy in Western Europe - a panel analysis. *European Journal of Political Economy*, 25, 30 – 41.

SSIRC 2023-146**CHALLENGES POSED BY COVID-19 PANDEMIC ON THE PSYCHOLOGICAL WELL-BEING OF ELDERLY PEOPLE IN THE EASTERN CAPE, SOUTH AFRICA. A CASE IN KEISKAMAHOEK VILLAGE****J.G. Kheswa**

University of Fort Hare, South Africa

N. Mase

University of Fort Hare, South Africa

ABSTRACT

During COVID 19 lockdown in South Africa, majority of the elderly people suffered domestic abuse and neglect from their family members and nurses, thus they reported impaired mental health and weak immunity. In a qualitative research approach that interviewed twelve isiXhosa- speaking participants (aged 62-75) from one village in Keiskamahoe, Eastern Cape Province, a chief from a village granted permission for the study to be carried out. The study was guided by Ryff's dimensions of psychological well-being, namely, self-acceptance, purpose in life, autonomy, personal growth, and environmental mastery. The participants gave consent to be tape-recorded during data collection and were given pseudonyms to protect their identity. For data analysis, the researchers relied on axial, open and selective coding to identify themes. Findings reveal that the elderly people reported poverty, guilty feelings and decline in immune system after being hospitalized although some reported resilience and positive human relations. To restore psychosocial well-being of the elderly, post COVID-19 pandemic, this study recommends an intervention from multiple stakeholders such as the church, community leaders, social workers, and psychologists. Most importantly, social, and emotional support from family members can alleviate stress and contribute towards positive mental health.

KEYWORDS: coping, COVID-19, elderly people, psychological well-being, emotional support.

1. INTRODUCTION

In the United States and United Kingdom, more than 90% of older-residents who were kept safe in shelters-in-places arranged by government during COVID 19 lockdown, reported loneliness and decreased social networks (Hu & Qian,2021; Krendl & Perry, 2021). In a survey conducted in Hungary among 589 women, aged 60-83, using structural equation model (SEM), analyses revealed that lockdown contributed to anxiety, intolerance of uncertainty, and impaired mental health (Lábadi et al., 2022). According to Rina et al., (2020), an inability for the 67% Indian elderly people to cope during COVID-19 lockdown was exacerbated by emotional abuse from their children who would deprive them of daily needs such as proper food and medical care. However, elderly people from China reported to be coping well owing to the emotional support from their friends and being financially privileged (Yu et al., 2020). South Africa was not exceptional because by the first month of COVID-19 lockdown, the South African Police Services'

data recorded that there were about 2 300 cases of domestic violence (Dartnall et al., 2020; Human Science Research Council, 2020). With no movements to seek psychological support from the community-based organizations, it is possible that the battered elderly women suffered in silence and remained stuck with their sexual partners even if they had intended to divorce or separate (Nduna & Tshona, 2020). Older adults are defined as individuals aged 60 and above (United Nations, 2019) and owing to being immunocompromised, it is imperative that they receive emotional support, care and their basic needs are met to cope with infectious diseases (Fuller et al., 2020; Hu & Qian, 2021; United Nations Development program, 2020). It is for this reason that they are being encouraged to buy orthodox medicine at the pharmacies for self-diagnosed symptoms (Arthur- Holmes, 2020).

The traumatic experiences that require major mental-health adjustments may fragment social connectedness, self-assertion for future aspirations and give rise to impaired psychological well-being, dementia, and anxiety among the elderly (Weiten, 2016). Psychological well-being is a multi-faceted construct that describes how an individual copes with stressors and strives for purpose in life, autonomy, meaning, self-acceptance and human relations (Ryff, 2014; Ryff & Keyes, 1995). Smith and Hollinger-Smith (2015) noted that psychological strengths such as resilience and gratitude play a vital role in old age for a meaningful life. Individuals with positive psychological well-being often demonstrate competency, optimism, and have rewarding relationships with others (Kheswa & van Eeden, 2017; Tuason et al., 2021). However, personal growth and derivation of eudaimonia (i.e., striving for living happily) seem to deteriorate with age when comparing the older and younger people (Lopez et al., 2020).

Khambule (2021) and the World Health Organization. (2020) concur that sub-Saharan countries have not yet recovered from the aftermath of COVID-19 that caused unprecedented economic, social, and psychological inequalities following the spread of the virus which started in Wuhan, China, in 2020. In Zimbabwe, many elderly people could not cope with the pressure from the government for imposing restrictions on the number of mourners to attend the funerals (Dzinamarira, & Musuka, 2021). In the same vein, research indicates that an uneven number of black South African people in the Eastern Cape did not comply to the social distance regulations when 80% of the deaths were largely related to COVID-19 infections caused by SARS coronavirus-2 (SARS-CoV-2) because of burial ceremonies in Port St Johns, Mthatha and Port Elizabeth (Jaja et al., 2021). According to African worldview, it is believed a failure to attend the funeral of loved ones bears unbearable results and is plagued by the ancestors' wrath unless they perform cleansing ceremonies (Walter, 1999).

In comparison, there have been many research publications since the emergence of COVID-19 but there is dearth of research to address the psychological well-being among elderly people in the Eastern Cape, South Africa. Research studies were drawn to youth emotional well-being (Haag et al., 2022; Wettstein et al., 2022). In South Africa, Mudizira and De Lannoy (2020) conducted an online study among 5 693 youth from all nine provinces to assess the prevalence of, and factors associated with depressive symptoms. From the same country, 13 participants in their semi-structured telephone interview from the Accelerate Hub Teen Advisory Group (TAG) from Eastern and Western provinces, mentioned that the consequences of COVID-19 were gender-based

violence and food insecurity (Gittings et al., 2021). With the aim of dealing better with the potential psychological challenges faced by elderly people, during COVID-19 lockdown, new questions have emerged. For instance, what were the psychological challenges encountered by elderly people during confinement? What coping mechanisms did they employ to ensure positive psychological well-being?

2. RESEARCH OBJECTIVES

The research objectives of this study were formulated as follows:

- i) To explore the dangers of COVID -19 on the psychological well-being of the elderly people in the Eastern Cape, South Africa.
- ii) To determine the coping strategies that the Eastern Cape elderly people employed during COVID-19 lockdown to ensure positive psychological well-being.

3. REVIEW OF RELATED LITERATURE

In this section, the theoretical framework and literature on COVID 19 and the psychological well-being of elderly people will be discussed.

3.1 Theoretical Framework

This study is underpinned by Ryff's psychological well-being (Ryff & Singer, 2008) Ryff's psychological well-being 'aspects' of positive operative are personal growth, environmental mastery, autonomy, purpose in life, positive relations with others and self-acceptance (Ryff & Singer, 2008). The relevance of the choice of the theory to guide this study is supported by a recent study from New- Zealand. The findings reveal that elderly people whose social contacts were fragmented during COVID-19 lockdown reported suicidal ideations, feelings of despair and impaired self-acceptance as compared to those who live with their spouses and children (Every-Palmer et al., 2020). Most importantly, the elderly people who live in rural areas of South Africa not only suffered psychologically but were exposed to inadequate food, and inaccessibility to health care and cultural practices due to social restrictive measures, authorized by World Health Organization (Giebel et al., 2022).

3.2 Impaired psychological well-being and substance abuse

Literature indicates that the restricted social movements, confined spaces, poor housing conditions and relatively lower socio-economic status, were responsible for impaired psychological well-being during COVID-19 lockdown in South Africa (Hoffmann et al., 2020; Simon & Khambule, 2022). The biopsychosocial model advocates that to look at the biological, psychosocial, and social factors all together would provide ways to assist the elderly people to cope with the repercussions of COVID-19 (Karunamuni, et al., 2020). For example, the elderly women, who experienced domestic violence (social factor) and neglect during COVID-19, resorted to substance abuse to suppress the emotional trauma (psychological factor) (Usher et al., 2020). The danger is that when they are under the influence of alcohol, Mashabela and Kheswa (2020) caution that aggressive behaviour, irritability, and domestic violence become inevitable and there could be more casualties. No wonder, the National Institute for Communicable Diseases reported that elderly

people got hospitalized in the first four months of COVID-19 lockdown in South Africa, where approximately 24 000 plunged into depression (Lindeque, 2020).

3.3 Weakened immune system.

Weakened immune system amongst the elderly has been identified as one of the major contributors to infection and fatality rate during COVID 19 (Shahrbanian et al., 2020). Elderly people living in rural areas mostly suffer from chronic illnesses which are associated with age and poor lifestyle like hypertension, diabetes, obesity, renal failure, lung diseases and many others which further aggravate their immune system. However, as of April 2022, the infection rates decreased because total COVID-19 vaccination was 136.00 million in Italy relative to 18.4 billion in India, while in South Africa of the 33.74 million vaccinated, elderly people were a majority (Yang et al., 2022).

3.4 Coping strategies employed by elderly people to boost their well-being.

Coping is defined as the behavioural and cognitive efforts one can employ to manage stress or challenges (Lazarus & Folkman, 1984). From Lazarus and Folkman's theory of coping and stress, elderly people who employ positive refocusing and rigorous personal hygiene practices are likely to overcome short- term stress. In addition, perceived social support from friends and doctors can alleviate stress while increasing mental health (Lábadi et al., 2022).

4. RESEARCH METHODOLOGY

To reach the objectives of the study, the researchers opted for a qualitative approach for it offers the participants a chance to express their experiences in a natural setting (De Vos et al., 2011). Twelve isiXhosa-speaking elderly people, (8 females and 4 males) aged 64 -75 years old from one village in Keiskammahoek, Eastern Cape, South Africa, were recruited by means of snowball sampling following a permission that was granted by a chief. In a non-probability, snowball sampling, which is also known as network sampling, Creswell, and Creswell (2017) expect the researchers to have identified one participant who has knowledge about the phenomenon and would be the key - informant in recruiting others sharing the same characteristics such as culture, health condition or socio-economic status to participate in the study. Face-to- face interviews for all the participants were conducted in their respective places. For confidentiality, pseudonyms were used, namely, P1, P2, until P12. The interviews were conducted in both English and isiXhosa language for literacy purposes, and later translated to English by researchers. The researcher adhered to the interview-guide for confirmability and credibility as recommended by Lincoln and Guba (2005). Data-analysis was achieved by coding, that is, re-reading and grouping of the common themes following transcription of the participants' responses in verbatim. Finally, debriefing took place as it served as a safety net to comfort the participants who became emotional during the interview.

5. RESULTS

Biographical information

Of the twelve participants from one village in Keiskammahoek, 4 female elderly women indicated to have been admitted at the hospital during COVID -19 lockdown in comparison to their 2 males' counterparts. Four females and two males indicated non-admission at the hospitals during COVID-19 lockdown. The marital status of the participants was as follows; 6 elderly women were legally

married (but four lived with their grandchildren), two – never married (living alone), three elderly men were widowers and lived with their children as compared to one who divorced.

Categories and Themes

Following the three types of coding, *axial*, *open*, *selective*, the researchers identified five major categories and twelve sub-themes (as reflect in the table1) from data analysis:

| Categories | Sub-themes |
|--------------------------|---|
| Neglect | Medical care Spousal death Emotional abuse due to quarantine |
| Domestic violence | |
| Immunity | Risk-sexual behaviour |
| Substance Abuse | Adherence to medication Investments Stress Resilience Human relations Spirituality Substance abuse |

Neglect

Regarding the treatment from family members or perhaps nurses for those who might have been admitted at the hospital, three sub-themes, *medical care*, *spousal death*, and *emotional abuse due to quarantine*, emerged.

Medical care

The extracts below reflect the treatment experienced by two elderly women while admitted at the hospital during COVID-19.

“The treatment from the nurses was harsh because they yelled at me everytime I asked for an extra blanket” (P11, aged 64).

Ndandingatyi kakhle. Abawongikazi kunokuthi benze icebo lokuthi ndincedwe, bathi kum ndizobasulela.”(P4,Aged 68).....Expression in isiXhosa then translated in English. ...[“I could barely eat properly . I asked the nurses to help me, but they mentioned that I would infect them with the virus”]

Spousal death

Two widowers, aged 72 and 75, explained that their children have stopped cooking, washed clothes and cleaning the house, respectively. They were quoted as follows:

“I now stay with my daughters since my wife died due to COVID- 19 pneumonia in 2020.Sadly, I did not give her a proper funeral due to social distance restrictions. Instead of getting support for my daughters, they do not do house chores such cooking dinner like before.”

“My wife left me with a void because my son does not sleep at home for days and leave me without food.”

Emotional abuse due to quarantine

“Andizange ndifumane inkxaso yeemvakalelo kubantwana bam emva kokukhululwa esbhedlele.. Baye bandiyeka ndayohlala ekamereni ndabeka ukutya kwam ngasemnyango besoyika ukosuleleka” (P8, Aged 67) Expression in isiXhosa then translated in English.[I did not get emotional support from my children after being discharged. They let me stay in the bedroom and drop my food next to my door for fear of being infected.]

Immunity

Two participants highlighted that adherence to medication and investments helped them cope although some highlighted stress as a perpetuating factor their weak immune system.

Adherence to medication

Regarding the question: How did you keep your immune system strong during COVID-19? The following responses were echoed:

“Mna ndancedwa ngugqirha ngokuthi ndifakelwe I oksijini ”.....Expression in isiXhosa, then translated in English : [“My doctor put me into oxygen support”, P1, Aged 66]

“Ukusela amayeza kubalulekile” Expression in isiXhosa, then translated in English :[Adherence to medication is important , P8, Aged 65]

Investments

Saving money while young was cited as a resource to survive when sickness comes later in life for instance, a divorcee among the male participants echoed this *“I always had money from my savings and retirement to take care of my health. During COVID-19, I would drive myself to King Williams Town to buy medication.”*

Stress

“Like I indicated that I lost my wife. My pneumonia has become worse because I sometimes forget to take medication or steam” [P11, Aged 75]

“COVID-19 has left with me stress because of the emotional abuse and violence when my husband would demand food knowing well, I was diagnosed with blood pressure” [P2, Aged 69]

Domestic violence

This category incorporates risky sexual behaviour that the elderly people were subjected to during COVID-19 lockdown.

Risky sexual behaviour

During COVID -19, most women suffered sexual abuse as three participants gave their testimony.

“My daughter, my husband would disappear for days and when he comes back would force me to have sex with him. When I refuse, he would beat me” [P6, Aged 66]

“Indoda le endandithandana nayo yayindihlukumeza ngokwesondo everytime ebuya emnxilweni esazi ukuba ndixhomekeke kuye ngokwezimali kwaye (P8, Aged 62) ndingatshatanga” ...Expression in isiXhosa then translated to English [My ex-partner would sexually abuse me everytime he comes back drunk knowing that I was dependent on him financially since I was not married].

Psychological well-being

When the respondents were asked to describe coping strategies to maintain their psychological well-being following COVID-19, they mentioned resilience, spirituality, human relations, and substance abuse.

Resilience

“Nangona kwakunzima xa sisiva amabali ezizalwana zethu zibhubha ngenxa ye-COVID-19, sizamile ukusebenzisa amayeza enziwe ekhaya ukuba singosuleleki” (P11) Expression in isiXhosa then translated to English [Although it was difficult when hearing stories of our relatives dying of COVID-19, we tried to use homemade remedies not to be infected]

Human relations

Two of the participants whose children were unsupportive while they were tested COVID-19 positive, spoke highly of their neighbours, thus, the theme, *human relations*, was identified.

“Abamelwane bam babendenzela isuphu nesonka ukuze ndiphakame ” ... [“My neighbours would prepare soup and bread for me. Thus, I survived”

“UMamu X waba ngumthombo wam wenkxaso kuba ndathintelwa kukuvalwa komsebenzi ngo2020 xa bekufanele ukuba ndifake isicelo somhlalaphantsi karhulumente.” [“Mrs. X became my source of support because I was hindered by lockdown in 2020 when I should have applied for government pension.” (P8, 62)

Spirituality

With a hoarse voice and full of tears, a 75-year-old male participant talked about the importance of prayer during difficult times.

To believe in God gave me faith that COVID-19 would pass even though I am a widower now.

Substance abuse

The are elderly people in this study who indicated to be drinking alcohol to overcome loneliness and stress associated with COVID-19 lockdown.

“I would drink home-brewed alcohol because the taverns bottle stores were closed.”

“Ukusela utywala ngexesha lokuvalwa kwe-COVID-19 kwandinceda ukuba ndimelane noxinzelelo kuba abantwana bam bebengandixhasi” [drinking alcohol during COVID-19 lockdown helped me cope with stress because my children were unsupportive]

6. DISCUSSION

From this empirical study, the elderly people whose relationships with their family members were characterized by tension, lack of emotional support and provision of daily needs such as food and health care during COVID-19, showed signs of stress and impaired psychological wellbeing, hence, some forgot to adhere to their treatment. Reported forgetfulness could be attributable to a decline in cognitive function. Literature on gerontology affirms that neuropsychiatric symptoms become a challenge with age especially among the elderly who are bombarded by risk factors such as dementia, hypertension, Alzheimer’s disease, diabetes, tuberculosis (TB), pneumonia and arthritis (Cravello et al., 2021). Also, death of a spouse deprived some families to get closure since they did not bury them, culturally. This could be haunting them psychologically and emotionally because Bhuda et al., (2023) found that in South Africa, there are black families who had to bury their loved ones within two days without slaughtering cows since COVID -19 is contagious. Also, according to Shongwe (2020) when the family did not fetch the spirit of the dead from where they took their last breath, washed the corpse, sat on the mattress and being with the coffin in the same room, the ancestors might block all the luck for the family.

Furthermore, reports of ill-treatment from the nurses towards the elderly patients implies that there could be many elderly people who suffered negligence during COVID -19 than their counterparts who afforded private hospitals or trained caregivers. This finding is in accordance with the study from Indonesia by Kurniawidjaja et al., (2021) who found that the elderly with health insurances, savings and well-functioning families had less depression during COVID-19 lockdown. In contrast, in Alabama, 27% of domestic violence was reported (Kourti et al., 2023) as compared to 29 % reported in Sao Paulo, Brazil (Ranzani et al., 2023). This could imply that the underlying conditions such as hypertension and pneumonia as indicated by the 75-year-old widower and the emotionally abused 69-year-old by her husband, were aggravated by skipping of meals, which, in turn, could contribute towards ulcers, chronic diarrhea, migraine, tuberculosis (TB) and gastrointestinal hemorrhage because of taking medication on an empty stomach. On the social aspect, positive human relations emerged as the neighbors took upon themselves to provide moral support and kindness in the form of preparing food to the elderly who were left in isolation and discriminated against by their own children. It could be said that providing social and emotional support to the elderly during COVID-19 lockdown served as a catalyst in restoration of faith as opposed to feeling anxious, lonely, and helpless.

Participants in this study admitted having developed stress owing to domestic violence, thus, they resorted to alcohol consumption. This finding resonates with the quantitative study conducted in all nine provinces of South Africa via Facebook survey by Theron et al., (2022). Participants (aged 55 and above) indicated to have used alcohol during COVID-19 lockdown to overcome social isolation and stress. From this finding, it implies that elderly people experienced impaired psychological well-being and despair because they showed feelings of hopelessness and

helplessness, loss of purpose in life, meaning, and languishing, hence they drink alcohol. It therefore means that they do not cope.

Sexual violence against women was reported in this study by two elderly women. One unmarried elderly woman indicated to have been sexually coerced by her sexual partner who took advantage of her since she was dependent on him financially. The other married participant was concerned about how her husband would physically abuse her to engage in unsafe sexual intercourse after being away for some time during COVID-19 lockdown. Backing this assertion is the social exchange theory by Emmerson that women who find themselves in precarious financial positions are most likely be physically and sexually abused than those who have their own money (Mashabela & Kheswa, 2020). For this reason, it is not known how many elderly people contracted the sexually transmitted infections or Human Immunodeficiency Virus because it was impossible to access condoms or test for gonorrhoea or syphilis at the public clinics during lockdown.

7. CONCLUSION

Elderly people who struggled to cope during COVID -19 lockdown were mostly lonely, stressed and from impoverished backgrounds. Feelings of despair among some of the participants emanated from being neglected by their family members, thus, they resorted to substance abuse. Although this study achieved its objectives and generated new knowledge, it should be acknowledged that the sample was not a true representative of the elderly people in South Africa.

8. RECOMMENDATION

It cannot be denied that COVID-19 lockdown left many elderly women vulnerable than a large population in South Africa. In this study, elderly women were exposed to risk sexual behaviour opportunistic infections considering that they are immunocompromised than men. Therefore, a conducive environment for the elderly should be a priority for the government and their family members against risk factors such as domestic violence, negative coping strategies.

ACKNOWLEDGEMENT

The researchers would like to thank to elderly people from Keiskamahoek who participated in this study.

REFERENCES

- Arthur-Holmes, F., Akaadom, M. K. A., Agyemang-Duah, W., Abrefa Busia, K., & Peparah, P. (2020). Healthcare concerns of older adults during the COVID-19 outbreak in low-and middle-income countries: lessons for health policy and social work. *63(6-7)*, 717-723.
- Bhuda, M. T., Motswaledi, T., & Marumo, P. (2023). A place for traditional and customary practices in funerals during and post COVID-19: Insights from South Africa. *Pharos Journal of Theology*, *104(3)*.

-
- Cravello, L., Martini, E., Viti, N., Campanello, C., Assogna, F., & Perotta, D. (2021). Effectiveness of a family support intervention on caregiving burden in family of elderly patients with cognitive decline after the COVID-19 lockdown. *Frontiers in psychiatry*, 12, 590104.
- Creswell, J.W. & Creswell, J.D. (2017). *Research design: Qualitative, quantitative, and mixed methods approach*. London: Sage publications
- Dartnall, E., Gevers, A., Gould, C., & Pino, A. (2020). Domestic violence during COVID-19: we need to ask the right questions. Retrieved from <https://issafrica.org/iss-today/domestic-violence-during-COVID-19-are-we-asking-the-right-questions>.
- De Vos, A.S., Strydom, H., Fouche, C.B. & Delport, C.S.L. (2011). *Research at grassroots for the social sciences and human service professionals*. (4th ed.). Pretoria: Van Schaik Publishers
- Dzinamarira, T., & Musuka, G. (2021). When culture, traditions, and public health clash: A paradigm shift urgently needed to stem the spread of COVID-19 in Zimbabwe. *South African Medical Journal*, 111(4), 279-279.
- Emersson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, 335-362.
- Every-Palmer S, Jenkins M, Gendall P, Hoek J, Beaglehole B, Bell C, et al. (2020). Psychological distress, anxiety, family violence, suicidality, and wellbeing in New Zealand during the COVID-19 lockdown: across-sectional study. *PLoS One*, (15), 1–19.
- Fuller, H. R., Ajrouch, K. J., & Antonucci, T. C. (2020). The Convoy Model and Later-Life Family Relationships. *J. Fam. Theor. Rev.* 12, 126–146.
- Giebel, C., Ivan, B., & Ddumba, I. (2022). COVID-19 public health restrictions and older adults' well-being in Uganda: psychological impacts and coping mechanisms. *Clinical Gerontologist*, 45(1), 97-105.
- Gittings, L., Toska, E., Medley, S., Cluver, L., Logie, C. H., Ralayo, N., ... & Mbithi-Dikgole, J. (2021). 'Now my life is stuck!': Experiences of adolescents and young people during COVID-19 lockdown in South Africa. *Global Public Health*, 16(6), 947-963.
- Haag, K., Du Toit, S., Skeen, S., Steventon Roberts, K., Chideya, Y., Notholi, V., ... & Tomlinson, M. (2022). Predictors of COVID-related changes in mental health in a South African sample of adolescents and young adults. *Psychology, Health & Medicine*, 27(sup1), 239-255.
- Hoffmann, A., Plotkina, D., Broihanne, M. H., Göritz, A., & Kleimeier, S. (2022). Differences in and drivers of mental, social, functional, and financial well-being during COVID-19: Evidence from Australia, France, Germany, and South Africa. *Plos one*, 17(10), e0276077.
- Hu, Y., & Qian, Y. (2021). COVID-19, inter-household contact and mental well-being among older adults in the US and the UK. *Frontiers in Sociology*, 6, 714626.
- Human Science Research Council (2020). COVID-19 survey findings. Pretoria, South Africa.
-

-
- Jaja, I. F., Anyanwu, M. U., & Iwu Jaja, C. J. (2020). Social distancing: how religion, culture and burial ceremony undermine the effort to curb COVID-19 in South Africa. *Emerging microbes & infections*, 9(1), 1077-1079.
- Karunamuni, N., Imayama, I., & Goonetilleke, D. (2020). Pathways to well-being: Untangling the causal relationships among biopsychosocial variables. *Social Science & Medicine*.
<https://doi.org/10.1016/j.socscimed.2020.112846> PMID:32089388
- Khambule, I. (2021). COVID-19 and the Counter-cyclical Role of the State in South Africa. *Progress in Development Studies*, 21(4), 380-396.
- Kourti, A., Stavridou, A., Panagouli, E., Psaltopoulou, T., Spiliopoulou, C., Tsolia, M., ... & Tsitsika, A. (2023). Domestic violence during the COVID-19 pandemic: a systematic review. *Trauma, violence, & abuse*, 24(2), 719-745.
- Krendl, A. C., & Perry, B. L. (2021). The impact of sheltering in place during the COVID-19 pandemic on older adults' social and mental well-being. *The Journals of Gerontology: Series B*, 76(2), e53-e58.
- Kurniawidjaja, M., Susilowati, I. H., Erwandi, D., Kadir, A., Hasiholan, B. P., & Al Ghiffari, R. (2022). Identification of depression among elderly during COVID-19. *Journal of Primary Care & Community Health*, 13, 21501319221085380.
- Lábadi, B., Arató, N., Budai, T., Inhof, O., Stecina, D. T., Sík, A., & Zsidó, A. N. (2022). Psychological well-being and coping strategies of elderly people during the COVID-19 pandemic in Hungary. *Aging & Mental Health*, 26(3), 570-577.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Lincoln, Y.S., & Guba, E.G. (2005). *Paradigms and perspectives in contention*. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., p. 163–188). Thousand Oaks, CA: Sage
- Lindeque, M (2020). The elderly is hardest hit by COVID-19 as lockdown loneliness impacts mental health. Retrieved 01 October 2020). <https://ewn.co.za/2020/10/01/elderly-hardest-hit-by-COVID-19-as-lockdown-loneliness-impacts-mental-health>
- Lopez, J., Perez-Rojo, G., Noriega, C., Carretero, I., Velasco, C., Martinez-Huertas, J. A., ... & Galarraga, L. (2020). Psychological well-being among older adults during the COVID-19 outbreak: A comparative study of the young-old and the old-old adults. *International psychogeriatrics*, 32(11), 1365-1370.
- Mashabela, E., & Kheswa, J. G. (2020). Exploring the impact of intimate partner violence on the women students living in cohabitation. *The Independent Journal of Teaching and Learning*, 15(1), 35-48.
-

-
- Mudiriza, G., & De Lannoy, A. (2020). Youth emotional well-being during the COVID-19-related lockdown in South Africa. Southern African Labour and Development Research Unit, Working Paper Series, 268, 1-31.
- Nduna, M., & Tshona, O. (2020). Gender-Based Violence during COVID-19 Lockdown in South Africa. Paper presented at the Presentation to the DEWCOM Weekly Webinars, Zoom online. <https://methodist.org.za/wp-content/uploads/2020/06/200601-Gender-and-Theology-Part-2-Prof-Mzi-Nduna.pdf>.
- Ranzani, C. D. M., Silva, S. C., Hino, P., Taminato, M., Okuno, M. F. P., & Fernandes, H. (2023). Profile and characteristics of violence against older adults during the COVID-19 pandemic. *Revista Latino-Americana de Enfermagem*, 31.
- Rina, K., Maiti, T., Panigrahi, M., Patro, B., Kar, N., & Padhy, S. K. (2020). Impact of COVID-19 pandemic and lockdown on elder abuse. *Journal of Geriatric Care Research*, 7(3), 103-107.
- Ryff, C.D. (2014). Psychological well-being revisited: advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics*, 83, 10–28
- Ryff, C.D. & Keyes, C.L. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719–727.
- Ryff, C.D. & Singer, B.H. (2006). Best news yet on the six-factor model of well-being. *Social Science Research*, 35, 1103–1119.
- Shongwe, M. N. (2020). Eswatini's legislative response to COVID-19: Whither human rights? *African Human Rights Law Journal*, 20(2), 412-435.
- Simon, B. A., & Khambule, I. (2022). Modelling the impact of the COVID-19 pandemic on South African livelihoods. *International Journal of Sociology and Social Policy*, 42(11/12), 926-948.
- Smith, J.L. & Hollinger-Smith, L. (2015). Savoring, resilience, and psychological well-being in older adults. *Aging and Mental Health*, 19, 192–200.
- Theron, M., Swart, R., Londani, M., Parry, C., Petersen Williams, P., & Harker, N. (2022). Did COVID-19-related alcohol sales restrictions reduce alcohol consumption? Findings from a national online survey in South Africa. *International journal of environmental research and public health*, 19(4), 2422.
- Tuason, M. T., Güss, C. D., & Boyd, L. (2021). Thriving during COVID-19: Predictors of psychological well-being and ways of coping. *PloS one*, 16(3), e0248591.
- United Nations Development Program (UNDP) (2020). COVID-19: New UNDP data dashboards reveal huge disparities among countries in ability to cope and recover. UNDP. https://www.undp.org/content/undp/en/home/news-centre/news/2020/COVID19_UNDP_data_dashboards_reveal_disparities_among_countries_to_cope_and_recover.html
-

- United Nations (2019). World Population Ageing 2019. Available at: www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf (Accessed April 10, 2021).
- Usher K, Bhullar N, Durkin J, Gyamf N & Jackson D. (2020). Family violence and COVID-19: Increased vulnerability and reduced options for support. *International Journal of mental health nursing*, 29:549- .
- Walter, T. (1999). *On bereavement: The culture of grief*. Philadelphia: Open University Press
- Weiten, W. (2016). *Psychology: Themes and variations*. South African Edition. Hampshire: Cengage Learning.
- Wettstein, A., Tlali, M., Joska, J. A., Cornell, M., Skrivankova, V. W., Seedat, S., ... & Haas, A. D. (2022). The effect of the COVID-19 lockdown on mental health care use in South Africa: an interrupted time-series analysis. *Epidemiology and psychiatric sciences*, 31, e43, 1-9.
- World Health Organization. (2020). *Addressing violence against children, women, and older people during the COVID-19 pandemic: key actions*, 17 June 2020 (No. WHO/2019-nCoV/Violenceactions/2020.1) World Health Organization: Geneva.
- Yang, M., Shi, L., Chen, H., Wang, X., Jiao, J., Liu, M., ... & Sun, G. (2022). Comparison of COVID-19 vaccine policies in Italy, India, and South Africa. *Vaccines*, 10(9), 1554.
- Yu, H., Li, M., Li, Z., Xiang, W., Yuan, Y., Liu, Y., Li, Z., Xiong, Z., 2020. Coping style, social support, and psychological distress in the general Chinese population in the early stages of the COVID-2019 epidemic (SSRN scholarly paper ID 3556633). Social Science Research Network. <https://doi.org/10.2139/ssrn.3556633>

SSIRC 2023-147**THE EFFECT OF POVERTY AND UNEMPLOYMENT ON UNIVERSITY GRADUATES' MENTAL HEALTH IN NINE EAST AND SOUTHERN AFRICAN COUNTRIES****J. Okello**

University of KwaZulu-Natal, South Africa

ABSTRACT

The effects of poverty and unemployment are the most frequently studied and documented variable among the graduates of African citizens currently facing depression and poor mental health due to unemployment. The reviewed literature on the emotional effects of poverty and unemployment on graduates was based on the cross-sectional administrative data sets obtained from the World Bank covering the following nine countries of Burundi, Kenya, Rwanda, South Sudan, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe for the period 2002–2020 for each country. Our study complements the substantial number of cross-sectional studies on poverty and employment that examine various measures of personality, mood, and psychiatric vulnerability. We seek to present in this paper what is known about the mental health effects of poverty and unemployment on graduates. We will not pay close attention to personal and contextual factors that may limit the validity of any generalizations about the nature and extent of poverty and unemployment's negative effects because our primary goal is to consider scientific evidence for the claim that poverty and unemployment generally affect the mental health of individuals.

KEYWORDS: Poverty; unemployment; underemployment; mental health; East and Southern African.

1. INTRODUCTION

Poverty and unemployment are two of the most persistent and contentious social and economic issues confronting developing countries, particularly those in Sub-Saharan Africa. The situation was exacerbated by the COVID-19 outbreak, which devastated the entire world and critically injured a young population attempting to enter labour markets and begin a new life after years of schooling. University graduates from all walks of life faced life-threatening difficulties because of lost opportunities to participate in labour markets and contribute to their own general social and economic welfare, start their own families, support their siblings, and belong to communities where they belonged.

The question of youth unemployment is one of the most pressing challenges most sub-Saharan African (SSA) countries are facing more specifically in the nine selected countries. Drawing examples from the South African context, Thwala (2011) notes and argues that South Africa is not the only country with a skills shortage issue, but that it is a global problem (Thwala, 2011). “Factors underpinning these job losses included a mismatch in the kind of education provided right from nursery, primary, college and at the university level, the ever-growing number of university graduates graduating from hundreds of learning institutions with no matched skills to the current

job markets, slow economic recovery growth that should create enough jobs for the growing population, limited access to information to the available employment opportunities, internal and external cross border shocks including economic meltdown, and high employment search costs as well as lack of access to information by the poor and disadvantaged would be employees who live in rural areas.

2. LITERATURE REVIEW

The effects of poverty and unemployment on university graduate mental health following the outbreak of COVID-19 have yet to be fully studied since curfews and the cross-border travel ban were lifted. Evidence suggests that poverty and unemployment recessions after COVID-19 have a negative impact on many household health indicators, particularly coping mechanisms, mortality, and suicide (Sheilla et al., 2022). There is also evidence, albeit to a lesser extent, that poverty and unemployment during economic downturns can have some positive effects on individual health, particularly in terms of alcohol and drug abuse, though overall results are mixed (Greyling, 2015). Furthermore, economic downturns are associated with increased mental stress in all segments of the population and increased use of mental health services (Hans de Witte, 2012; AfDB, 2022). Anxiety and depression levels are both on the rise (Nemalili et al., 2006). In turn, these conditions are linked to an increase in the number of attempted suicides and premature deaths because of episodes of violence and suicide (Frica et al., 2017), as well as increased alcohol consumption (Sheilla et al., 2022).

Since the opening of the economies in East and Southern African Region (ESAR) ESAR, policy initiatives to help manage the effects of poverty and unemployment among university graduates have had no major impact on job creation (Carrera-lasfuentes & Jose, 2015). The labour market and the general population's mental health are two areas that have felt the long-term impact of those restrictions (Mncayi, 2016). Because of the complex relationship between mental health and unemployment, systems designed to address one must not neglect the other. Poverty and unemployment lengthened episodes of common mental disorders but did not increase the likelihood of their onset (Wahlbeck et al., 2017). Economic burden was a better predictor of future psychiatric morbidity than either of these more objective risk factors (AfDB, 2022), though the nature of this risk factor and its relationship with poverty and unemployment remain unknown.

Regardless, the repercussions of an economic crisis do not have the same impact on all persons and all ESAR nations; gender, age, degree of education, marital status, family size, employment, income, belief systems, and social interactions are individual characteristics that determine resilience. (Schaufeli, 1997). And socioeconomic factors can also have an impact on this. Analysis of policies implemented by some ESAR countries during and after COVID-19, which eventually led to economic meltdown, reveals a link between these policies and their impact on mental health, estimated that one in five 24-29-year-olds of the aged population (Lannoy De, A., Graham, L., Patel, L., & Leibbrandt, 2018). Precise measures, such as massive cutbacks imposed because of the crisis in various ESAR countries, have had an impact. Budget cuts in human development, labour markets, and the healthcare sector may result in reduced services for prevention, early detection, and treatment of mental health problems at a time when individuals may require more

care due to mental health problems. In this regard, vulnerable groups—youth seeking to establish themselves—are frequently found in financial difficulty, making them more vulnerable to health-related complications; thus, they remain at higher risk (Kidwai, 2015).

According to Paul and Moser's (Carrera-lasfuentes & Jose, 2015) meta-analysis, the negative effect of poverty and unemployment on mental health was more pronounced in Burundi, South Sudan, South Africa, Zimbabwe, Zambia, and Uganda with low economic development, unequal income distribution, or weak unemployment benefit systems. Contextual factors have been observed in highly diverse geographical areas far from ESAR, such as Kenya, Tanzania, and Rwanda, where the economic crisis appears to have had less of an impact on young people's health. Despite the impact of COVID-19 on the African continent, ESAR countries have remained steadfast in their efforts to mitigate the impact of COVID-19. Poverty and unemployment have frequently and severely harmed economic performance (Lannoy De, A., Graham, L., Patel, L., & Leibbrandt, 2018), with poverty and unemployment being two of the most pervasive effects (Jabulani Nkosikhona Mzizi, 2017). On the other hand, Wahlbeck et al., (2017) examined the impact of poverty and unemployment on university graduate mental health, two distinct features must be considered: on the one hand, the education system responsible for human capital development and healthcare system coverage responsible for providing a nearly human safety net; and on the other, differences in transparent governance structures and decentralization systems (Schaufeli, 1997). Little is known about how poverty and unemployment effects is known about how poverty and unemployment affect diverse people's mental health. Being a member of a historically disadvantaged social group may have an influence on the relationship between job insecurity and mental health. Less privileged social groups, such as women, young adults, and those with poor socioeconomic status (education), may be more vulnerable to the stressors of mental health or depression due to their exposure to poverty and unemployment.

Wahlbeck et al., (2017) provide early evidence on the causes of poverty and unemployment rates before, during, and after the pandemic suggests that the economic turmoil primarily affected workers with their qualifications, women, and possibly people with low socioeconomic status. It is unclear whether these social groups had disproportionately higher rates of underemployment prior to, during, and after the pandemic. Furthermore, no studies have been identified that have investigated differential vulnerability. As a result, it is unknown who has been most affected by poverty and unemployment during the pandemic.

3. METHODOLOGY

A cross-sectional, descriptive research of two time periods: before and after the COVID-19 outbreak (2019). (2022). The study population included female and male World Bank respondents aged 24-29 years old who were questioned for the World Bank and National Health Survey. Poverty, unemployment, and mental health are the dependent variables. Independent variables include: 1) socio-demographic (age, socio-professional class, level of education, nationality, employment situation, marital status), 2) mental health causes (social support), and 3) financial (GDP per capita, risk of poverty, income per capita per household), public welfare services (health spending per capita), and labour market (employment and unemployment rates, percentage of

temporary workers). To determine change, multilevel logistic regression models with mixed effects were built. Lower health spending per capita and the share of temporary workers were the macroeconomic variables associated with poor mental health in both men and women.

3.1 Research design

A cross-sectional descriptive study was conducted in Africa before and after the COVID-19 crisis (AfDB, 2022). To fill these gaps, the paper presents an analysis entered on three primary research objectives. First, it examined the relationship between social welfare and employment insecurity, including poverty, unemployment, underemployment, depression, and anxiety, in the nine ESAR countries, using WB, ILO, and nationally representative data. The targeted maximum likelihood estimation (TMLE) method was used, which is a well-established statistical method for estimating causal effects in observational data on poverty (*Pov*), unemployment (*UE*), mental health (*MH*) and other indicators.

The estimation controlled for mental health status before the pandemic, further minimizing the possibility of social selection (that is, compromised mental health threatens employment security). Second, we evaluated whether employment insecurity was disproportionately concentrated among specific social factors, including gender, age, and education (a key indicator of socio-economic status that is applicable across varying ages 20–29 and 30+), in groups with differential exposure. Third, we conducted stratified analyses by gender, age, and educational level to see if the mental health consequences of job insecurity are worse for certain social groups (differential vulnerability). These stratified analyses aided the field's ability to identify populations with heightened risk exposure and vulnerabilities, as well as our ability to argue for ESAR governments to allocate adequate human capital development and public health resources to prevent the escalation of pre-existing mental health disparities between ESAR countries and other countries.

3.2 Sampling method

Poverty and unemployment are measured through the self-reported poor mental health of university graduates. Analyses using targeted maximum likelihood estimation examined the association of poverty and employment insecurity with depression, assessed using the 2-item Patient Health Questionnaire (PHQ), and anxiety, measured with the 2-item Generalized Anxiety Disorder scale (GADS). Stratified models were used to evaluate and examine whether poverty (*Pov*), unemployment (*UE*), mental health (*MH*) and other indicators consequences are disproportionately concentrated among specific social groups. Both covariates—poverty, unemployment, and mental health—threatened the social fabric of society during the COVID-19 pandemic, and the mental health repercussions were not felt equally across the population. Covariates on employment insecurity during the pandemic should be regarded as a major public health concern even though they may exacerbate pre-existing mental health disparities during and after the COVID-19 pandemic period. Covariates included previous depressive symptoms measured by the national health ministry's studies on mental health or depression in the most recent biannual regular assessment prior to the pandemic. Health insurance was evaluated by determining whether participants had current health insurance. (1) Gender (female or male), (2) Age Group (25-29, 30-44, and ≥ 45 years), (3) Education level (high school or below, some college, college

graduate, and postgraduate), and (4) Marital status were the socio-demographic covariates (yes or no).

The socio-demographic covariates variables are: a) social inequality: age, socio-professional class, level of education (low, medium, or high, as defined by the World Bank and the International Labour Organization); Low level means no schooling or primary education; medium level means secondary education and mid-level vocational training; and high-level means advanced vocational training and university qualifications; nationality; b) other: indicators situation, marital status. According to the ESAR individual country national policies and development plans that attempt to address poverty (*Pov*), unemployment (*UE*), mental health (*MH*) and other indicators includes the Sustainable Development Goals (SDGs). Individuals between the ages of 24 and 29, living in ESAR countries, who were polled for the World Bank database, modelled by the ILO, and the National Health Survey in 2019 and 2022. Understanding poverty (*Pov*), unemployment (*UE*), mental health (*MH*) and other indicators at global and national representative probability-based national survey data came from the World Bank, modelled by the ILO, and national country databases for this study. An elaborate process using a systematic sequence of data on national population data, poverty, unemployment, and mental health was used to randomly select nine ESAR country participants from the WB. Participants aged 20-29 and 30-44 and ≥ 45 were considered eligible adults aged 18+ due to their involvement in job searches and family formation in relation to poverty (*Pov*), unemployment (*UE*), mental health (*MH*) and other indicators.

3.3 Data analysis

This quantitative research uses panel data regression as an analysis method using E-views version 10 software for regression analysis techniques. This research used secondary data from the World Bank (WB) as modelled by the International Labour Organisation (ILO) and National In-Country (NIC) databases¹ namely poverty (*Pov*), unemployment (*UE*) and mental health (*MH*) for the 2019-2022 period. The econometric model of this study is as follows: $Pov_{it} = \beta_0 + \beta_1 UE_{it} + \beta_2 MH_{it} + \varepsilon_{it}$ Where; *Pov* = Poverty; *UE*= Unemployment; *MH*=mental health; β_0 = Intercept; β_1 , β_2 , are the coefficient of the regression model; *i* = indicator; and *t* = time indicator period.

5. RESULTS AND DISCUSSION

Aware that this is not a panel survey but permits us to reconstruct the poverty and unemployment impact on the mental health or depression trajectories of university graduates, it provides in addition, information on the prevention of mental disorders, stigma, employment status, exposures, and social support. Based on the test results above, the Chi-square Cross-section's probability value is higher than α 5% (0.05), the best method to use is the Common Effect Model in estimating poverty (*Pov*), unemployment (*UE*), mental health (*MH*) and other indicators is demonstrated in

the next test is the Lagrange Multiplier.

Table 1. Show the result tests.

| Effect Test | Stat | def. | Prob. |
|--------------------------|----------|--------|--------|
| Cross-section F | 1.884888 | (3,22) | 0.1616 |
| Cross-section Chi-square | 6.405055 | 3 | 0.0935 |
| | | | |

Source: Data process on E-Views 10.

Table 2. Lagrange Multiplier test result on Pov, UE, MH, and other indicators.

| Effect Test | Cross-section | Time | Both |
|---------------|---------------|----------|----------|
| Breusch-Pagan | 0.205814 | 1.039928 | 1.245741 |
| | (0.6501) | (0.3078) | (0.2644) |
| | | | |

Source: Data process on E-Views 10.

Based on the results of the Lagrange Multiplier test, both have a value greater than α 5% (0.05), the best model to use in this study is the Common Effect Model on poverty (Pov), unemployment (UE), mental health (MH) and other indicators. The Hausman test was no longer carried out because the Common Effect Model had been selected through both tests. Data on poverty (Pov), unemployment (UE), mental health (MH) and other indicators reveals that poverty and unemployment have threatened mental health in all walks of life during the pandemic, and mental health ramifications are not felt equally across the population. Poverty, unemployment or underemployment, and mental health are all factors to consider. Our findings confirm that underemployed people have the same mental health as unemployed people, rather than those who have a full-time job. The current findings support some prior studies while contradicting others on poverty (Pov), unemployment (UE), mental health (MH) and other indicators.

Early studies, on the other hand, operationalized underemployment in relation to workers' over-qualification for jobs and were conducted in macroeconomic conditions without any major economic contraction or focused on workers over the age of ≥ 55 (see WB, 2022). (see AfDB, 2022). The disparities in findings could be attributed to differences in the operationalization of poverty and unemployment, the macroeconomic context, or the target age group, highlighting the importance of investigating varying dimensions of poverty and unemployment across different economic contexts and age groups among the ESAR countries. The similarity in mental health between poor, unemployed, and underemployed people observed in this study suggests that the widely used operationalization of poverty and employment insecurity concepts as a simple distinction between unemployment and any employment understates the breadth of mental health problems attributable to employment insecurity.

The findings of our paper emphasize the importance of drawing attention to underemployed people, who suffer the mental health consequences of poverty and unemployment but are often overlooked in empirical studies and practice discussions. The general upward trend in underemployment emphasizes the importance of investigating poverty and underemployment

relationships as a public health and mental health issue. We also discovered that being trapped in poverty and unemployment can have a long-term negative impact on an individual's mental health, a phenomenon known as "mutilating effects," necessitating the activation of mental health services for poverty-trapped and unemployed people, as well as underemployed people, to alleviate the mental health repercussions of unemployment during and after economic meltdowns caused by pandemics or natural disasters for long-term follow-up by those affected.

Becoming poor and unemployed or underemployed was linked with an increased risk of mental health depression (normalized ratio Adjusted Odds Ratio [AOR] = CI 1.66, 95 % confidence level interval [CI] = 1.36-2.02) and anxiety (AOR = 1.50, 95 percent CI = 1.26-1.79), compared to having a full-time job. Unemployment insecurity was disproportionately concentrated among poor (54.3 percent), unemployed (60.6 percent), those suffering from mental illness/depression (55.9 percent), young adults (aged 25-29 years; 57.0 percent), and those without a college degree (62.7 percent) on poverty (*Pov*), unemployment (*UE*), mental health (*MH*) and other indicators. Furthermore, after job insecurity, low-educated workers had worse effects on depression (AOR = 2.08, 95 percent CI = 1.28, 3.40) and anxiety (AOR = 1.95, 95 percent CI = 1.24, 3.09). Those with a high school diploma or less reported worse depression after joblessness (AOR = 2.44, 95 percent CI = 1.55, 3.85).

The descriptive statistics are summarized in Table 1 as shown in the annex A: The weighted mean age was 44.95 years, and 50.7 percent of the data analysed were female. Annex B summarizes the results of targeted maximum likelihood estimation (TMLE) in Table 2, which show that *Pov*, *UE*, *MH* and other indicators combined is associated with increased depression (Adjusted Odds Ratio [AOR] = 1.66, 95 percent confidence interval [CI] = 1.36, 2.02) and anxiety (AOR = 1.50, 95 percent CI = 1.26, 1.79). We conducted an additional TMLE analysis on poverty (*Pov*), unemployment (*UE*), mental health (*MH*) and other indicators to see if the effects for underemployed people were like the effects for unemployed people. The findings revealed that underemployed and unemployed people had similar rates of depression (AOR = .91, 95 percent CI = .71, 1.17) and anxiety (AOR = 1.26, 95 percent CI = .99, 1.60). With no significant differences observed between underemployment and unemployment, these two categories were combined in subsequent analyses.

We also calculated whether poverty (*Pov*), unemployment (*UE*), mental health (*MH*) and other indicators were disproportionately concentrated among specific social groups (differential exposure). As shown in **Annex C** of Table 3, exposure to insecure employment was significantly related to gender, age, and education levels. Specifically, 54.3 percent of people before COVID-19 and 60.6 percent during COVID-19 compared to 48.3 percent after COVID-19, 55.9 percent of women compared to 45.7 percent of men, 57.0 percent of young adults (aged 18-29 years) compared to 44.4 percent of those in the 30-44 year age group, and 62.7 percent of people with a high school diploma or less compared to 29.1 percent of those with an advanced degree experienced either being trapped in poverty and unemployment or underemployment during COVID-19.

Differential exposure and differential vulnerability

Supporting the differential exposure hypothesis and previous evidence on poverty and unemployment rates before, during, and after the pandemic, the current paper revealed that employment insecurity, which includes the concepts of poverty (Pov), unemployment (UE), mental health (MH) and other indicators disproportionately affects those with a less privileged social status. Those aged 25-29 and those without a college degree were disproportionately affected by job insecurity. This unequal burden among these populations reflects the virus's differential impact on sectors with a higher proportion of workers from historically marginalized communities. Furthermore, our stratified analyses show that certain disadvantaged social groups can suffer worse consequences because of differential vulnerability, in addition to experiencing more job losses or work-hour reductions, resulting in differential exposure to poverty (Pov), unemployment (UE), mental health (MH) and other indicators. Graduate workers, in addition to being more likely to experience poverty and unemployment, can suffer from worse mental health effects when experiencing current poverty and unemployment levels than any other social group. Similarly, we predicted that those with a high school diploma or less had a higher risk of depression after poverty and unemployment, as well as a higher risk of poverty and unemployment.

Taken together, the current findings suggest that graduates and those with low education levels will suffer the most because both mechanisms driving health disparities, differential exposure and vulnerability, are patterned unfavourably for these two groups. Considering that upward mobility in employment (securing a new job or adequate employment) is harder for these groups, the confluence of differential exposure and differential vulnerability further deepens the existing disparities in mental health for graduates and those with low socio-economic status. Strengthening mental health services for the unemployed and underemployed, particularly workers from historically marginalized backgrounds, such as graduates and those with low education levels, is critical to averting the potential "perfect storm" of mental health challenges that is threatening our society's most vulnerable members.

Prevention of Mental Disorders

In a study done on 36 African countries focusing on the most important employment challenges young people face, in more than half of the countries surveyed, a skills mismatch was identified as the main obstacle to entering the labour market (AEO, 2012). Studies elsewhere have produced a similar conclusion. Rodriguez et al. (2008), in their study of Brazil, found that graduate unemployment stemmed from mismatches between the demand for and supply of skills in the labour market. From the perspective of employers, a baseline study by Griesel and Parker (2009) on South Africa found a large gap between what employers got from graduates and what they expected to get. Employers were asked, for various specific skills, to indicate on a scale of 1–5 (Very dissatisfied to Very satisfied) what they expected from their graduate employees compared to what they found: their rating of the gap between expectation and reality in written communication skills, for example, was 1.34, and for problem-solving it was 1.35. The World Economic Forum (WEF, 2014) also found that most graduates emerged from university with qualifications that were not needed by the labour market. In 2012, about 600,000 South African university graduates were unemployed, while the private sector was struggling to fill an estimated

800,000 vacancies (Economist, 2012). Again, Adcorp (2014) reported that in 2013 about 829,000 jobs had remained unfilled mainly because of the persistent shortage of jobseekers with relevant skills.

Such severe mismatches are not exclusive to South Africa: a study by Hanapi and Nordin (2014) found that many employers in Malaysia considered graduates to be lacking in the essential skills and qualifications needed by industry, and Berlingieri and Erdsiek (2012) concluded that a substantial proportion of graduates in Germany lacked the qualifications or skills required by employers. While we know that the youth unemployment figures today are alarmingly high, it is also important to track how this has become an entrenched part of our society. Unfortunately, how young people have fared in the economy is not well-documented historically, with reliable statistics on employment generally being available from the middle of the 1990s, and for youth specifically only since the early 2000s. Given the magnitude of the burden of mental disorders, treatment alone will be insufficient to close the mental health gap in LMICs; yet mental health promotion and prevention of mental illness are nascent in most LMIC health systems. One promising area of prevention includes focusing on the mental health of children. Research shows that the average age of onset of mental disorders is in childhood and adolescence. Undetected and untreated mental disorders occurring early in life lead to lifelong disability and to early, preventable death (AfDB, 2022). Thus, attention to children's mental health should be seen to prevent mental disorders in adults.

Stigma

There is strong evidence suggesting that factors that delay or prevent mental illness treatment include low levels of knowledge regarding mental illness and prejudice and discrimination against people with mental illness (Greyling, L., 2015; Kidwai, A., 2015). A systematic review of effective interventions to reduce mental-health-related stigma and discrimination found that most of the research has taken place in HICs (n = 69), with few studies (n = 11) conducted in middle-income countries and none in LMICs (Greyling, L., 2015; Kidwai, A., 2015). Findings were like another overview (Greyling, L., 2015; Kidwai, A., 2015), describing that most research has examined short-term outcomes demonstrating improvement in positive attitudes; however, these were not associated with knowledge changes or social contact (direct or indirect) with a person with mental illness (Greyling, L., 2015; Kidwai, A., 2015). Even though some group-level anti-stigma inventions show promise, there is a need for rigorous studies with larger samples and longer-term follow-up assessments. These studies should focus on service users' perspectives on stigma and discrimination as well as behavioural change around mental health stigma (Greyling, L., 2015; Kidwai, A., 2015).

Employment status, with the above-mentioned categories (unemployed and employed), was used as stratified location variables since we were interested in examining the differential impact of the crisis on mental health in these two groups. The unemployed included both workers without a current occupation and people in search of a first job. The variable period included two categories, pre-crisis, and crisis, corresponding to the two waves of the survey, 2007 and 2011.

Exposures and Social support, we included two socioeconomic status variables. Educational level was categorized as: no studies or incomplete primary; complete primary; secondary; and university studies. The second socioeconomic status variable was a financial strain, measured through a question on difficulties to make ends meet, widely used in social and economic surveys (Wahlbeck, K., et.al., 2017). This variable was originally recorded in six categories and later recorded into three: great difficulty or difficulty to make ends meet; some difficulty; and ease. **Social support** was measured by the duke scale. This questionnaire measures both confidence and effective support. It includes 11 items on a 5-point scale ranging from 1 to 5, which are summed up into an index, with a higher total score indicating a higher level of social support. This variable was dichotomized using a cut-off point at percentile 15 of the total score, proposed for the population (Wahlbeck, K., et.al., 2017). This led to a threshold of equal or greater than 41 for good social support. Furthermore, although some studies suggest the relationship between job loss and health and health behaviour to be causal, this issue is still debated for instance, while some evidence exists that unemployment is causally related to an increase in smoking, this association is poorly understood, which also applies to other health behaviours, such as obesity. There is also support that the association between unemployment and health reflects a selection effect, which implies that individuals with poorer health are more likely to become and stay unemployed. The latter is underlined by findings of studies differentiating between the reasons for entry into involuntary unemployment. Some studies report no negative health effects after job loss due to exogenous reasons (such as the closure of a business), which suggests that a selection effect is likely to explain the association between unemployment and health (Wahlbeck, K., et.al., 2017).

Studying the relationship between employment and health is further complicated by the fact that, because of the increase in flexibility in the labour market, people can experience multiple unemployment spells during their working life, leading to long-term unemployment. Although a link between persistence in unemployment and poorer health seems plausible (Wahlbeck, K., et.al., 2017) these studies are limited by the relatively small sample size and the use of self-reported data on exposures and outcomes. Furthermore, it is unclear how the persistence of unemployment over time might influence health outcomes (Wahlbeck, K., et.al., 2017). Three different possibilities of development have been proposed in the literature. The first model relates to a dose-response relation, where the increasing persistence of unemployment is followed by a further deterioration in health. The second model suggests the development of a steady-state situation- i.e., after a certain level of effect additional unemployment will not add anything more. The final model suggests immunity to repeated exposure to unemployment – i.e., after some time a maximum is reached and any more unemployment will result in lower effect estimates (Wahlbeck, K., et.al., 2017).

It has also been suggested that the health impact of unemployment may depend on macro-level economic circumstances, such as an economic recession (Wahlbeck, K., et.al., 2017). On the one hand, involuntary job loss during an economic recession may be less detrimental to health, because unemployment is less rare and the stigma of unemployment that could potentially harm (mental) health decreases (AfDB, 2022). On the other hand, the impact of unemployment on health may be increased during an economic recession as it may lead to increased insecurities about the

chances for reemployment and therefore to increased psychological distress (AfDB, 2022). Previous studies have suggested that the post-2008 economic recession intensified the negative impact of unemployment on general and mental health (Wahlbeck, K., et.al., 2017) and that differences with respect to unhealthy behaviour, such as smoking and drinking, increased between the employed and unemployed (AfDB, 2022). The existing evidence regarding the relationship between the economic recession and health is most consistently found for suicides and mental health (Wahlbeck, K., et.al., 2017). However, until now, few studies have investigated whether the associations between the degree of persistence of unemployment and health (behaviour) differed during and after the economic recession that started in 2008. E.g., one study reported that the decline in health is steep for people who have been unemployed for several years (AfDB, 2022), while another study found job loss and long-term employment to be risk factors for substance use in times of economic recession (AfDB, 2022).

5. CONCLUSION

The current study contributes to the body of knowledge about the mental health consequences of the pandemic in four important ways. To begin, the study relied on nationally representative data gathered by the World Bank and ILO during peak periods of poverty and unemployment. Second, the study contributes to the ongoing debate about social causation vs. social selection by utilizing a novel statistical method and rich prospective data. Third, the results of this study found that being poor and facing unemployment has similar effects on mental health as being underemployed, clarifying previously mixed findings and advocating for the mental health needs of university graduates trapped in poverty and underemployed people. Finally, the current study systematically assessed the differential vulnerability of both males and females who experienced worse consequences following poverty and unemployment insecurity, revealing the possibility of worsening disparities in mental health triggered by the recent economic turmoil. No other studies that have been identified appear to incorporate these distinct advantages.

Finally, the current study's findings show that poverty and unemployment among university graduates—not just unemployment, but also underemployment—threaten the public's mental health during any calamity, including pandemics and natural disasters. In terms of social policies, a more generous poverty and unemployment benefit package is likely to reduce economic hardship and distress, thereby mitigating the impact of poverty and unemployment insecurity on mental health. According to a recent study, receiving poverty and unemployment insurance was associated with fewer mental health problems among those who lost their jobs during the pandemic. Furthermore, the study findings suggest that policy and service targets should shift from a sole focus on unemployed people to include underemployed people. Mismatch between educational background and required skills. Currently, the rules governing the eligibility of underemployed workers for unemployment insurance benefits vary across ESAR countries. Adjusting eligibility criteria during natural and pandemic crises, as well as providing additional support for underemployed people who do not meet a given state's eligibility criteria, will likely alleviate mental distress in this already impoverished group. Importantly, our findings show that the economic upheaval was not felt equally by all social groups.

Undergraduates and those with low education levels are likely to face worse mental health

consequences because of unemployment during natural and pandemic crises, exacerbating pre-pandemic disparities in mental health. Because undergraduates and those with low education levels have fewer resources, policies and interventions that make mental health services more affordable and accessible to low-income members of our society will be critical. For example, social protection-based interventions have shown promising results in reducing depression among those who receive them. Providing such an intervention to those experiencing poverty and job insecurity, particularly those who have lost health insurance because of their job loss or do not have a sufficient financial reservoir to cover treatment, may mitigate the negative effects of job insecurity on mental health and avoid deepening existing disparities in mental health during and after the crisis.

Limitations

This study relied on World Bank (WB) – International Labour Organisation (ILO) and National In-Country database modelled reports, which introduced reporting bias. Second, the current study concentrated on the effects of poverty and unemployment on university graduates, hours-based underemployment, and mental health. As a result, other forms of underemployment income or skills-based underemployment were not considered, which is likely to underestimate the scope and effects of poverty and underemployment on mental health. In examining the unique and joint impacts of varying underemployment status on mental health may be a fruitful future direction to further clarify the impacts of this ever-rising type of biting poverty and unemployment on mental health and identify which specific type of underemployment should be prioritized as a means of curbing rising mental health problems. Third, while implementing TMLE and controlling for prior mental health status prior to the pandemic contributed to the debate between social selection and social causation, we do not intend to claim that the possibility of reverse causality has been eliminated. Because such information was not available in the WB database, mental health problems in childhood, for example, could not be included as a covariate. Although the inclusion of mental health measures prior to the pandemic alleviated concerns about the lack of childhood mental health measures, the unique influence of childhood mental health problems could not be controlled. Similarly, causal interpretation of stratified analysis results should be approached with caution because the smaller sample size may jeopardize the assumptions required to interpret TMLE coefficients as causal effects.

REFERENCES

- AfDB, (2022). *Indicators on Gender, Poverty, the Environment and Progress Towards the Sustainable Development Goals in African Countries*. <https://doi.org/Volume XXII>
- Carrera-lasfuentes, I. A. P., & Jose, M. (2015). *Youth unemployment and economic recession in Spain : influence on health and lifestyles in young people (16 – 24 years old)*. 427–435. <https://doi.org/10.1007/s00038-015-0668-9>
- De Lannoy, A., Graham, L., Patel, L., & Leibbrandt, M. (2018). What Drives Youth Unemployment and What Interventions Help: A Systematic Overview of the Evidence and a Theory of Change. *Southern Africa Labour & Development Research Unit University of Cape Town, October*, 92. [ww.saldru.uct.ac.za](http://www.saldru.uct.ac.za)

-
- Frica, S. O. A., Witte, H. De, Wahlbeck, K., Cresswell, J., Peija, S., Parkkonen, J., Carrerasfuentes, I. A. P., Jose, M., Kidwai, A., Wilson, H., Finch, D., Countries, A., Journal, I., Social, O. F., Studies, H., Mncayi, P., Dunga, S. H., Dashiff, C., Dimicco, W., ... Hussin, M. (2017). Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist. *Social Psychiatry and Psychiatric Epidemiology*, 4(1), 235–252. <https://doi.org/10.1186/s13643-021-01821-3>
- Greyling, L. (2015). *Graduate unemployment in South Africa : Perspectives from the banking sector*. May. <https://doi.org/10.4102/sajhrm.v13i1.656>
- Hans de Witte, S. R. and L. T. J. P. (2012). The Psychological consequences of unemployment in South Africa. *JEL:J640*, 15(3), 235–252.
- Jabulani Nkosikhona Mzizi. (2017). *A qualitative study of the impact of unemployment in 'Mazakhele' KwaZulu-Natal* (Issue June). University of South Africa.
- Kidwai, A. (2015). Psychological Impacts of Unemployment – Evidence from the Literature. *Society of Interdisciplinary Business Research*, 4(3)(3), 141–152. [https://doi.org/ISSN: 2304-1013](https://doi.org/ISSN:2304-1013)
- Mncayi, P. (2016). An analysis of the perceptions of graduate Unemployment among graduates from a South African University. *International Journal of Social Sciences and Humanity Studies*, 8(1), 17. [https://doi.org/ISSN: 1309-8063](https://doi.org/ISSN:1309-8063)
- Nemalili, B., Patricia, N., Development, M., Faculty, L., Campus, T., & Africa, S. (2006). *An Investigation of Unemployment at Tshiheni Village : Limpopo Province By Nemalili Nkhumeleni Patricia : Submitted in partial for the fulfillment degree of Development , Turfloop Graduate School of Faculty of Management and Law , University of Limpopo : University of Limpopo*.
- Schaufeli, W. B. (1997). *Youth unemployment and mental health: some Dutch findings*.
- Sheilla, N., Abdullah, S., Zuber, M., Majid, A., Sheilla, N., Abdullah, S., Zuber, M., Majid, A., & Hussin, M. (2022). *Systematic Literature Review of Higher Education and Unemployment in Asian Countries Systematic Literature Review of Higher Education and Unemployment in Asian Countries*. 1(1), 70–91. <https://doi.org/10.6007/IJAREMS/v11-i1/12141>
- Wahlbeck, K., Cresswell, J., Peija, S., & Parkkonen, J. (2017). Interventions to mitigate the effects of poverty and inequality on mental health. *Social Psychiatry and Psychiatric Epidemiology*, 52(5), 505–514. <https://doi.org/10.1007/s00127-017-1370-4>

Annex A: Descriptive statistics are summarized.

| Variable | M (SD) or n (%) | M (SD) or n (%) |
|---|-------------------------------|------------------------|
| Employment security | Secure employment 1790 (50.5) | 1790 (49.1) |
| Insecure employment | | |
| Unemployment | 1229 (34.6) | 1303 (35.8) |
| Underemployment | 529 (14.9) | 549 (15.1) |
| Depression (PHQ-2 ≥ 3) | 442 (12.5) | 447 (12.4) |
| Anxiety (GAD-2 ≥ 3) | 550 (15.6) | 538 (14.9) |
| Covariate variable | | |
| Pov | 590 (16.6) | 671 (18.4) |
| UE | 2414 (68.0) | 2245 (61.6) |
| MH | 326 (9.2) | 508 (13.9) |
| Other Indicator var | 218 (6.1) | 219 (6.0) |
| Gender | | |
| Female | 2050 (57.8) | 1847 (50.7) |
| Male | 1497 (42.2) | 1794 (49.3) |
| Age group | | |
| 18-29 | 355 (10.0) | 409 (11.2) |
| 30-44 | 1227 (34.6) | 1479 (40.6) |
| ≥ 45 | 1963 (55.4) | 1753 (48.1) |
| Education level | | |
| High school or less | 779 (22.0) | 1384 (38.0) |
| Some college education | 1254 (35.3) | 964 (26.5) |
| Bachelor's degree | 907 (25.6) | 723 (19.9) |
| Advanced degree | 608 (17.1) | 571 (15.7) |
| Health insurance (no) | 359 (10.1) | 444 (12.2) |
| Marital status (yes) | 1902 (53.6) | 1956 (53.7) |
| Depressive symptoms before pandemic (CES-D) | 1.78 (2.20) | 1.84 (2.19) |
| Presence of COVID-related symptoms | 1102 (31.3) | 1115 (30.9) |
| COVID-related discrimination | | |
| Received poorer service | 87 (2.5) | 102 (2.8) |
| Threatened or harassed | 54 (1.5) | 62 (1.7) |
| Treated with less courtesy and respect | 163 (4.6) | 161 (4.4) |
| Other people acted afraid of you | 340 (9.6) | 334 (9.2) |
| Personality scores | | |
| Extroversion | 25.51 (6.37) | 25.42 (6.21) |
| Conscientiousness | 35.68 (5.71) | 35.33 (5.82) |
| Neuroticism | 21.88 (6.44) | 22.03 (6.37) |
| Agreeableness | 35.33 (5.67) | 35.16 (5.75) |
| Openness | 35.48 (6.33) | 35.16 (6.11) |

Annex B: Summarizes the results of targeted maximum likelihood estimation (TMLE).

| Group | Depression (PHQ-2 ≥ 3) | | Anxiety (GAD-2 ≥ 3) | |
|---------------------------|------------------------|----------|---------------------|----------|
| | AOR (95% CI) | P-Values | AOR (95% CI) | P-Values |
| Full sample | 1.66 (1.36-2.02) | <.001 | 1.50 (1.26-1.79) | <.001 |
| Stratified | | | | |
| Covariate variable | | | | |
| Pov | 2.08 (1.28-3.40) | 0.003 | 1.95 (1.24-3.09) | 0.004 |
| UE | 1.63 (1.29-2.07) | <.001 | 1.42 (1.15-1.75) | 0.001 |
| MH | 1.20 (.63-2.28) | 0.58 | 1.38 (.69-2.79) | 0.36 |
| Other indicators | 1.22 (.62-2.41) | 0.57 | 1.25 (.62-2.51) | 0.53 |
| Gender | | | | |
| Male | 2.15 (1.50-3.08) | <.001 | 2.05 (1.48-2.83) | <.001 |
| Female | 1.46 (1.1-1.86) | 0.002 | 1.19 (.96-1.47) | 0.12 |
| Age | | | | |
| 18 - 29 | 1.45 (.86-2.45) | 0.16 | 1.14 (.71-1.84) | 0.59 |
| 30 - 45 | 1.54 (1.14-2.09) | 0.005 | 1.58 (1.20-2.07) | 0.001 |
| ≥45 | 1.90 (1.39-2.62) | <.001 | 1.59 (1.20-2.10) | 0.001 |
| Education | | | | |
| High school or less | 2.44 (1.55-3.85) | <.001 | 1.71 (1.12-2.62) | 0.01 |
| Some college | 1.45 (1.05-1.99) | 0.02 | 1.15 (.85-1.55) | 0.37 |
| Bachelor's degree | 1.81 (1.20-2.75) | 0.005 | 1.68 (1.20-2.35) | 0.003 |
| Advanced degree | 1.78 (1.08-2.95) | 0.02 | 1.58 (1.01-2.48) | 0.05 |

Annex C: Exposure to insecure employment related to gender, age, and education levels

| Subgroup | Insecure employment | | Secure employment |
|----------------------------|---------------------------------|-----------------|---------------------------------|
| | (Weighted n $\frac{1}{4}$ 1852) | | (Weighted n $\frac{1}{4}$ 1790) |
| | Unemployment | Underemployment | |
| | n (%) | n (%) | n (%) |
| | n (%) | n (%) | n (%) |
| Race and ethnicity* | | | |
| Pov | 263 (39.2) | 101 (15.1) | 307 (45.8) |
| UE | 743 (33.1) | 340 (15.2) | 1161 (51.7) |
| MH | 240 (47.2) | 68 (13.4) | 200 (39.4) |
| Other indicators | 57 (26.0) | 41 (18.7) | 121 (55.3) |
| Gender | | | |
| Male | 551 (30.7) | 269 (15.0) | 974 (54.3) |
| Female | 752 (40.7) | 280 (15.2) | 815 (44.1) |
| Age group* | | | |
| 18-29 | 163 (39.9) | 70 (17.1) | 176 (43.0) |
| 30-44 | 419 (28.3) | 245 (16.6) | 814 (55.1) |
| ≥ 45 | 720 (41.1) | 234 (13.4) | 798 (45.5) |
| Education level* | | | |
| High school or less | 700 (50.6) | 168 (12.1) | 516 (37.3) |
| Some college education | 384 (39.8) | 167 (17.3) | 413 (42.8) |
| Bachelor's degree | 155 (21.4) | 113 (15.6) | 455 (62.9) |
| Advanced degree | 65 (11.4) | 101 (17.7) | 406 (71.0) |

SSIRC 2023-155**AN ANALYSIS OF THE IMPLICATIONS OF MONETARY POLICY AND EXCHANGE RATE VOLATILITY ON INVESTMENT IN SOUTH AFRICA****N.E. Ratombo**

University of Limpopo, South Africa

D.M. Kgomo

University of Limpopo, South Africa

ABSTRACT

Domestic investment is the foundation of every nation's economy and can neither be neglected nor disregarded. It is seen as an essential component of economic growth and development. Thus, investments contribute significantly to domestic output and is fundamental to many macroeconomic theories. Hence, the study analyses the implications of monetary policy and exchange rate volatility on investment in South Africa, using secondary time series data covering the periods from 1991 to 2020. The autoregressive distributed lag was applied as the econometric methodology. The traditional unit root tests were conducted, which revealed that there is stationarity, and the series is integrated of order zero and one. The autoregressive distributed lag provided the cointegration bounds, short and long run results. A cointegrating long-run relationship among the variables was found. Furthermore, the interest rate, money supply, inflation and exchange rate volatility were found to have different effects on investment in the short and long run. In the short and long-run, money supply positively influenced investment, while exchange rate volatility negatively affected investment in South Africa. The diagnostic and stability tests revealed stability of the model, and that the model is normally distributed, free from serial correlation and heteroskedasticity problems. It is imperative for policymakers and monetary authorities to implement regulatory exchange rate policies that can assist to advance economic growth and promote investment in South Africa. The development and progress of the country, depends on investment. Thus, maintaining higher rates of investment is crucial.

KEYWORDS: South Africa, Monetary policy, Investment, Exchange rate volatility, Autoregressive Distributed Lag, Money supply, Interest r

1. INTRODUCTION

Domestic investment (DI) is the foundation of every nation's economy and cannot be neglected or disregarded. It is seen as a component for economic development and growth (Bakari, 2022). According to Meyer and Sanusi (2019), DI has also been viewed as an important element to promote employment. It, thus, contributes significantly to domestic output and is fundamental to many macroeconomic theories (Cloyne, Ferreira, Froemel & Surico, 2023). There is, however, an increasing concern over developing countries' investment status. In South Africa, physical investment has been declining since the mid-1980s, falling from about 30% of gross domestic product (GDP) to well under 20% in the early 1990s (16.7%). South Africa's investment rates remained far lower than those normally seen in developing middle income countries, despite the

increase that South Africa experienced to over 20% in the second half of the 1990s (Andreoni & Tregenna, 2020).

Developed and developing countries are faced with the repercussion of monetary policy application and exchange rate explosiveness, which lowers the levels of DI and economic growth activities (Kilicarslan, 2018; Assenza, Heemeijer, Hommes & Massaro, 2021; Umoru, Effiong, Umar, Okpara, Iyaji, Oyegun, Iyayi & Abere, 2023). This limit developing countries such as South Africa from participating in investment activities and increase unpredictable movements in the economy. Exchange rate volatility occurs when there are large fluctuations that affect the equilibrium rate, which generates economic swings and uncertainty risks associated with negativity in investment (Ajao, 2015; Oaikhenan & Aigheyisi, 2015). Even though, countries are aware of the importance of investment activities, much uncertainty still exists because of the COVID-19 pandemic and its catastrophic spread.

For South Africa to maintain sustainable economic growth and development, there should be reasonable increases in the investment rate and such growth rates must be properly maintained. The monetary policy, including the fiscal policy can be used by the government to stabilise investment growth rate. Although, theoretically, policy stimulus might have contradictory effects on domestic investment (Min, Wen & Wang, 2022). It is imperative for policymakers to implement regulatory exchange rate policies that can assist to advance economic growth and promote investment. Failure to stabilise monetary policy and exchange rate volatility will weaken the country's investment (Benarbia & Aiboud, 2023; Umoru et al., 2023). Hence, the study at hand aims at questioning the implications of monetary policy and exchange rate volatility on investment in South Africa, using secondary time series data covering the periods from 1991 to 2020.

Numerous studies have debated continuously about the best strategies for the management of monetary policy and exchange rate volatility, but so far, nothing concrete has been done to analyse their implication on South Africa's investment. The current study intends to narrow South Africa's investment gap by analysing monetary policy and exchange rate volatility implications during the stated period by answering the two research questions: What are the effects of monetary policy on investment? What are the effects of exchange rate volatility on investment? Preceding in this section is the introduction and followed by the literature review in section two.

2. LITERATURE REVIEW

The theoretical and empirical literature are discussed and presented in this section. The theoretical literature outlines two theories, namely the IS-LM model and Monetarist theory.

2.1 Theoretical literature

According to Hicks (1937), and Agbonrofo and Ajibola (2023), the IS-LM model was presented to link the investment-savings and the liquidity preference of the money supply. According to this theory, the money market is denoted by LM and the goods market is represented by the IS curve. The IS curve uses the investment (I) equals savings (S) notion, to illustrate equilibrium in the goods market. On the other hand, the equilibrium of the money market is mirrored by the demand for money (L) equals the supply of money (M). The IS-LM model is used to scan the levels of the

relationship set between output and interest rate. The IS curve applies a downward slope to minimise the cost of borrowing set-in interest rate while increasing its spending on investment, aggregate demand, and the country's productivity (Hicks, 1937; Agbonrofo et al., 2023).

This theory's drawback was noted in the study of Munir (2018) and Kabir (2022). The theory drawback is attached to the notion that certain prices show elasticity, as other prices show sluggish performance. These drawbacks reveal monetary policy implications, which can be spotted in the short run through negative influences on prices. However, some studies on monetary policy such as Agbonrofo et al. (2023) still apply the IS-LM model to elucidate the link between the money and goods markets that affects equilibrium interest rates and production. However, this study also employed the monetarist theory by Friedman and Schwartz that was presented during the year 1963, based on its significant contributions to monetary policies. The monetarist theory is well known for its notion to stabilise and promote the quality of money in the short term. According to this theory, money supply and output sought to grow in a cycle to maintain the projected level of economic activities. Although this theory is most efficient in the short term, its full equilibrium benefit can also be experienced in the long run (Agbonrofo et al., 2023).

According to Obstfeld and Rogoff (1998) and Morina, Hysa, Ergün, Panait and Voica (2020), the decrease of administration speculation on the country nominal interest causes uncertainty on exchange rates and structured monetary policies. Henceforth, the host country currency can increase while domestic economy suffers. In contrast, Devereux, and Engel (2003), Anyanwu, Amalachukwu and Ngozi (2017) and Morina et al. (2020) proffer that economy welfare depends on the state value of exchange rate volatility and on how fees are set. Furthermore, macroeconomic aspects and the dynamics of the business setting are some of the drivers of the exchange rate volatility, which are used to detect currency movements. The appreciation and depreciation of currency against foreign currency describe the exchange rate through theories such as the real option theory, the interest rate parity theory, purchasing power parity and the traditional flow theory.

The real option theory of investment uses the international trade, foreign direct investment, and macroeconomic stability to observe the exchange rate volatility. These three channels rate the investor options, which are connected to the effect of macroeconomic doubt (Dixit, Dixit & Pindyck, 1994; Schnabl, 2008; Morina et al., 2020).

2.2 Empirical literature

2.2.1 Relationship between monetary policy, exchange rate volatility and investment

Chamunorwa and Choga (2015), Ngondo and Khobai (2018) applied the generalised autoregressive conditional heteroskedasticity (GARCH) and autoregressive distributed lag (ARDL) models to reveal adverse exchange rate volatility effects on export output. Their studies were conducted in South Africa between 2000 – 2014 and 1994 – 2016. Latief and Lefen (2018) revealed a negative and significant link between exchange rate volatility and trade volumes in Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. The exchange rate volatility negativity affected both trade and investment activities in a global setting. The GARCH and

threshold-generalised autoregressive conditional heteroscedasticity (T-GARCH) approach was used for the period between 1995 to 2016. In addition, Mlambo (2020) applied the GARCH model and panel ARDL in Tanzania, Uganda, and Kenya to reveal negative exchange rate volatility towards export. The study was conducted from the year 2002 to 2018 using quarterly data. Furthermore, it was revealed that lowering the exchange rate volatility can increase export through stable monetary policy.

According to Mahonye and Zengeni (2019), during the period from 1990 to 2019, Zimbabwe decreased its real exchange rate to boost its economic growth. Moreover, foreign currency was decentralised, and this led to a reconsideration of exchange rate policies. Moreover, Kabir (2022) revealed a negative and significant impact of interest rates and exchange rates on the Nigerian private sector. Higher levels of interest rates and exchange rates were unfavourable to the country's manufacturing sector. Katusiime, Agbola and Shamsuddin (2016) revealed that between 1960 to 2011, Uganda used exchange rate volatility to increase its GDP. The study followed the ARDL approach. A positive exchange rate volatility was experienced during the short run and long run periods.

According to Buabeng, Ayesu and Adabor (2019) study that was conducted in Ghana covering the period from 1990 to 2018, it was revealed that there is negative cooperation between the monetary policy rate and the exchange rate towards the industrial sector. The study applied the ARDL estimation technique. The ARDL technique was also applied by Kabir (2022) in Nigeria covering the period from 1981 to 2021. Monetary policy applied was broad money supply, which revealed that there is a significant and positive influence on private sector performance. Mlambo (2020) employed Fully Modified Ordinary Least Square (FMOLS) and Pooled Mean Group to reveal various monetary policy indicators in South Africa, Namibia, Lesotho, Eswatini and Botswana. This study revealed a mixture of monetary indicators for the period covering 1996 to 2016. A similar technique was applied between 1986 and 2017 by Bello, Oyedokun and Adeolu-Akande (2021). The study revealed a positive and significant effect of monetary policy through the bank credit channel on the manufacturing sector of Nigeria. The study further emphasised that the banks allocated additional credit to the sector. Usio and Adofu's (2021) study used the OLS regression technique to reveal Nigeria's positive and insignificant influence on the bank lending interest rate and manufacturing output from the year 1986 to 2020.

Olanipekun and Akeju (2013) analysed the association that money supply and inflation had on Nigeria's capital formation between 1970 and 2010. The Johansen cointegration test and vector error correction model (VECM) was conducted to check the relationship between the variables. The study found that there is cointegration among the variables and that money supply positively affected capital formation. Inflation was found to negatively impact capital formation in Nigeria. A study by Agbonrofo et al. (2023) was conducted in sub-Saharan African countries from the year 1995 to 2021. The ARDL technique was employed to respond to the effects of the manufacturing sector on monetary policy through the Mean Group, Pooled Mean Group and Dynamic Fixed Effect. The study utilised three variables such as the lending interest rate, exchange rate and domestic credits as a proxy for monetary policy variables. The short run findings revealed that

there exists an insignificant impact on monetary variables and the manufacturing sector. Conversely, the long run outcomes revealed a mixture of both positive, negative, and significant effects on lending interest rates and credit. However, the exchange rate variable fails to influence the manufacturing sector during the study period.

Numerous reviewed studies' outcomes revealed that although exchange rate volatility was significant as it negatively affected economic growth. Yet, after this study's observation of previous studies, the significance of monetary policy and exchange rate volatility is still insufficient. In reviewing the chosen theories, there is no study that reported investment sound effects that are caused by monetary policy and exchange rate volatility. Hence, this study's contribution will focus mainly on both monetary policy and exchange rate volatility offers on investment in South Africa.

3. RESEARCH METHODOLOGY

This section outlines the data collection process, model and econometric techniques employed to achieve the objective of the study. Various econometrics techniques were adopted, in which the econometric methodology conducted was the ARDL bounds test.

3.1. Data

The study employed secondary time series data, covering the periods of 1991 to 2020. The annual data were obtained from the World Bank and Quantec database. Gross fixed capital formation (GFCF) is a proxy for investment, which is the dependent variable in the model. The independent variables include money supply, interest rates, inflation, and exchange rate volatility.

3.2. Model specification

To analyse the implications of monetary policy and exchange rate volatility on investment in South Africa in the study, the following model was estimated. The linear logarised model estimated for South Africa is as follows:

$$GFCF_t = \beta_0 + \beta_1 IR_t + \beta_2 LMS_t + \beta_3 CPI_t + \beta_4 EXCHVOL_t + \varepsilon_t \quad (1)$$

Where *GFCF* represents the gross fixed capital formation, *IR* the interest rate, *LMS* the logarised money supply, *CPI* is inflation and *EXCHVOL* the logarised exchange rate volatility. The constant is indicated by β_0 , and the coefficients estimates by β_1 to β_4 , while ε_t is the error term. The ex-a prior expectation of the study is that the variables used are integrated into different orders, and there is a link and a long-run relationship between investment, interest rate, money supply, inflation, and exchange rate volatility.

3.3. Estimation techniques

The study employed various econometric techniques starting with the unit root tests, ARDL cointegration bounds test, stability tests, and diagnostic tests. The unit root test is commonly used to check if the variables are stationary (Shahid, 2014). The commonly used traditional unit root tests such as the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests, were conducted

first to test for stationarity in the series and to check the order of integration. The ADF unit root test was proposed by Dickey and Fuller (1979) to solve autocorrelation challenges that might occur in the series. While the Phillips-Perron unit root test was proposed by Phillips and Perron (1988). The presence or absence of a unit root in the series, can influence the behaviour of the series (Asari, Baharuddin, Jusoh, Mohamad, Shamsudin & Jusoh, 2011). The intercept, trend and intercept, and no components are the implementation procedures for both the unit root tests (Sam, McNown & Goh, 2019). In the study, the null hypothesis is that the series has a unit root, implying the series is not stationary, while the alternative hypothesis is that there is no unit root, as the series is stationary. Once the order of integration has been determined, the ARDL cointegration bounds test can be conducted if the series is of $I(0)$ or $I(1)$. As the ARDL model is considered the appropriate econometric estimation technique to be conducted for inference (Efanga, Ugwuanyi & Ogochukwu, 2020).

The ARDL test, determines if there exists a long run cointegrating relationship between the variables (Shahid, 2014). Pesaran, Shin and Smith (2001) stipulate that the ARDL is the most reliable econometric method. The ARDL, unlike other cointegration tests, it allows the examination of the short run relationship with the error correction term (ECT) (Sanusi, Hassan & Meyer, 2019). Furthermore, the application of the ARDL method helps in avoiding endogeneity challenges. The ARDL method is employed when the series is a combination of $I(0)$ or $I(1)$ (Duasa, 2007; Sanusi, Hassan & Meyer, 2019). Hence, the method has been applied in this study as the variables are of $I(0)$ and $I(1)$. In this study, under the ARDL bounds cointegration test, the null hypothesis is that there is no cointegration and the alternative hypothesis is that there is cointegration among the variables. Cointegration exists among the variables when the F-statistic value is greater than the lower and upper critical bound values (Pesaran, Shin & Smith, 2001). Therefore, there would be rejection of the null hypothesis and acceptance of the alternative hypothesis, an indication that there is a long run relationship among the variables.

The diagnostic tests conducted was the Jarque-Bera normality test, serial correlation test and the heteroskedasticity tests. The Jarque-Bera normality test is used to check if the series is normally distributed. According to Pesaran (2015), the Jarque-Bera normality tests further assists in checking the degree the regression errors exhibit departures from normality. The Breusch-Godfrey Serial Correlation LM test is used to check if the variables are free from serial correlation. The heteroskedasticity tests in the study are employed to ensure that the variables are free from problems of heteroskedasticity. The hypothesis rule of the diagnostic test is that for the null hypothesis to be accepted and alternative hypothesis rejected, the probability value of the tests must be greater than the 5% significance level.

Lastly, to confirm the validity and stability of the model the Cumulative sum (CUSUM) and Cumulative of squares are conducted. For the model to be stable, the line of the estimated model should be among the CUSUM fixed lines (Aslam, 2016). Simply, the fitted lines of the estimated model in the CUSUM and CUSUM of squares must trend within the CUSUM fixed two lines (5% significance critical lines). The model will not be considered stable if the fitted lines of the estimated model trends outside the CUSUM fixed two lines (5% significance critical lines).

4. EMPIRICAL RESULTS AND DISCUSSION

4.1. Unit root results

The ADF and PP stationarity results are presented below. The hypothesis of the unit root test is that: Null hypothesis (H_0) - presence of unit root, series is nonstationary; and alternative hypothesis (H_1) - no unit root, the series is stationary. The rejection levels are at 1%, 5% and 10% significance of level. The ADF t-statistic and PP t-statistic was used to examine the order of integration and level of significance.

Table 1: Unit root formal results

| SERIES | Model specification | Levels, $I(0)$ | | First difference, $I(1)$ | |
|---------|---------------------|--------------------|-------------------|--------------------------|-------------------|
| | | ADF test statistic | PP test statistic | ADF test statistic | PP test statistic |
| GFCF | Intercept | -2.011564 | -1.669224 | -3.525615** | -3.470975** |
| | Trend and intercept | -1.725306 | -1.635557 | -3.514110* | -3.380234* |
| | None | -0.826186 | -0.826186 | -3.571701*** | -3.513937*** |
| IR | Intercept | -2.277361 | -2.242080 | -3.835255*** | -6.244879*** |
| | Trend and intercept | -2.765554 | -2.522416 | -3.685746** | -6.255827*** |
| | None | -1.117406 | -1.012036 | -6.228379*** | -6.376346*** |
| LMS | Intercept | -0.277314 | -0.428077 | -3.698841*** | -3.613132** |
| | Trend and intercept | -2.211859 | -2.217642 | -3.626239** | -3.529019* |
| | None | 1.578633 | 1.380019 | -3.283504*** | -3.283504*** |
| CPI | Intercept | -3.740679*** | -3.987336*** | | |
| | Trend and intercept | -4.116779** | -3.884151** | | |
| | None | -2.036006** | -2.366816** | | |
| EXCHVOL | Intercept | 0.204845 | 0.527473 | -3.884212*** | -3.603720** |
| | Trend and intercept | -2.137756 | -1.583257 | -3.901693** | -3.782801** |
| | None | 2.140231 | 2.986042 | -3.392447*** | -3.281188*** |

Rejection of null hypothesis at *10%, **5%, *** 1%.

Authors’ own computations.

Table 1 presents the variables examined for stationarity, namely, GFCF, interest rate, money supply, inflation, and exchange rate volatility. The test is based on the implementation procedures of the intercept, trend and intercept, and no components under the ADF and PP unit root test statistics. GFCF, interest rate, money supply and exchange rate volatility are not stationary at levels and had to be differenced once to induce stationarity. These four variables are found to be integrated of order one. The null hypothesis of non-stationarity, after first difference, was rejected and the alternative hypothesis accepted at different levels of significance (1%, 5% and 10%). Inflation is the only variable found to be stationary at levels, meaning it is integrated of order zero. As inflation is of $I(0)$, it implies that there is no unit root, and the alternative hypothesis of stationarity is accepted at 5% and 10% significance levels. The results from the unit root test, provides that the series is integrated of order zero and one, and there exists stationarity at different levels of significance. These findings allow the ARDL bounds test to be conducted, to determine the relationship between GFCF, interest rate, money supply, inflation, and exchange rate volatility.

4.2. ARDL bounds tests results.

It is evident from the unit root results in table 1 that the series is of $I(0)$ and $I(1)$, which is an indication that the ARDL bound test can be conducted. Under the ARDL results, the cointegration results are provided and discussed first. Followed by the long and short run results, including the error correction term.

Table 2: ARDL bounds cointegration results.

| Test Statistic | Value | Significance | I(0)-Lower bound | I(1)-Upper bound Asymptotic: n=1000 |
|----------------|----------|--------------|------------------|--|
| F-statistic | 5.943314 | 10% | 2.2 | 3.09 |
| k | 4 | 5% | 2.56 | 3.49 |
| | | 2.5% | 2.88 | 3.87 |
| | | 1% | 3.29 | 4.37 |

Authors' own computations.

The cointegration results are presented in table 2. The null hypothesis is that there is no cointegration and alternative hypothesis there is cointegration. The F-statistic value is 5.943314, and it is stated that for cointegration to exist between the dependent and independent variables the F-statistic value must lie above the lower bound - $I(0)$ and upper bound - $I(1)$ values. It is evident that the F-statistic value of 5.943314 lies above all the values at $I(0)$ and $I(1)$. It is greater than 3.29 at $I(0)$ and 4.37 at $I(1)$, at 1% significance level. The null hypothesis of no cointegration is rejected and the alternative hypothesis that there is cointegration is accepted at 1% significance level. Hence, there is a long run cointegrating relationship among GFCF, interest rate, money supply, inflation, and exchange rate volatility.

Table 3: ARDL long-run results

| Variables | Coefficient | Std. Error | t-Statistic | Probability |
|-----------|-------------|------------|-------------|-------------|
| IR | -0.082257 | 0.093441 | -0.880302 | 0.3947 |
| LMS | 9.879765 | 1.867424 | 5.290586 | 0.0001 |
| CPI | 0.081067 | 0.081401 | 0.995894 | 0.3375 |
| EXCHVOL | -0.323263 | 0.079752 | -4.053349 | 0.0014 |

Authors' own computations.

$$GFCF = -0.082257IR + 9.879765LMS + 0.081067CPI - 0.323263EXCHVOL \quad (2)$$

Equation 2 shows the long run equation. The equation shows the impact interest rates, money supply, inflation, and exchange rate volatility have on GFCF, which is investment in the South African economy. The findings in this study as indicated in table 3, show that interest rate has a negative and insignificant influence on investment. A 10% increase in interest rate will lead to a 0.82% decrease in investment, however, it will be insignificant. According to Kabir (2022), higher interest rates tend to be unfavourable in some sectors of the economy. Money supply has a highly significant and positive influence on investment, implying that a 10% increase in money supply will lead to a 99% increase in investment. The outcome is aligned to the findings of Olanipekun and Akeju (2013). It is evident that to stimulate economic growth, financial resources should be directed to investment. Aslam (2016) states that money supply also plays a significant role in the determining the interest rate. Inflation is indicated to have a positive influence on investment and

has an insignificant probability value (p-value). Inflation having a positive relationship contradicts the findings of Olanipekun and Akeju (2013). Exchange rate volatility has a negative impact on investment and significant p-value, which indicates that an increase of 10% in the exchange rate volatility will lead to a 3.23% decline in investment. These findings are supported by Latief and Lefen (2018), whose study revealed that the exchange rate volatility affected investment activity negatively. For an economy to stimulate investments, which can further lead to economic growth, a country can decrease its real exchange rate.

From these findings, the money supply has a positive and significant influence on investment within the South African economy. Unlike the exchange rate volatility, which has a significant negative impact. The short run results are also indicated by the ARDL results, including the ECT, which is referred to as the speed of adjustment. The speed of adjustment and its significance are important as they show how long it will take for investment to return to equilibrium.

Table 4: ARDL short-run results

| Variables | Coefficient | Standard Error | Test -Statistic | Probability |
|-----------|-------------|----------------|-----------------|-------------|
| IR | -0.080115 | 0.089554 | -0.894597 | 0.3873 |
| LMS | 9.622543 | 2.362191 | 4.073566 | 0.0013 |
| CPI | 0.078956 | 0.079016 | 0.999249 | 0.3359 |
| EXCHVOL | -0.314846 | 0.066315 | -4.747724 | 0.0004 |
| ECT | -0.973965 | 0.138608 | -7.026751 | 0.0000 |

Authors’ own computations.

The short run relationship of the variables is indicated in table 4, including the ECT, showing the speed the series will converge to equilibrium. Like the long-run results money supply, has a positive and significant effect on investment in the short run. While interest rates and the exchange rate volatility possess negative signs. The ECT as expected, contains a negative sign and a highly significant p-value, which is a good sign that the series will converge to equilibrium. The estimated speed of adjustment is -0.973965 and indicates that in the analysed periods, 97% of disequilibrium will be rectified.

4.3. Diagnostic and stability results

4.3.1. Diagnostic results

Table 5: Diagnostic results

| TEST | Null hypothesis (H_0) | Probability | Results |
|---|---------------------------|-----------------|--|
| Jarque-Bera normality test | Normal distributed | 0.962655 > 0.05 | H_0 is accepted, as 0.962655 > 0.05. The series is normally distributed. |
| Breusch-Godfrey Correlation LM Test | No serial correlation | 0.0689 > 0.05 | H_0 is accepted, as 0.0689 > 0.05. No serial correlation in the model. |
| Breusch-Pagan-Godfrey Heteroskedasticity Test | No heteroskedasticity | 0.5077 > 0.05 | H_0 is accepted, as 0.5077 > 0.05. No serial correlation in the model. |
| Heteroskedasticity Test: ARCH | No heteroskedasticity | 0.1450 > 0.05 | H_0 is accepted, as 0.1450 > 0.05. The model has no heteroscedasticity. |

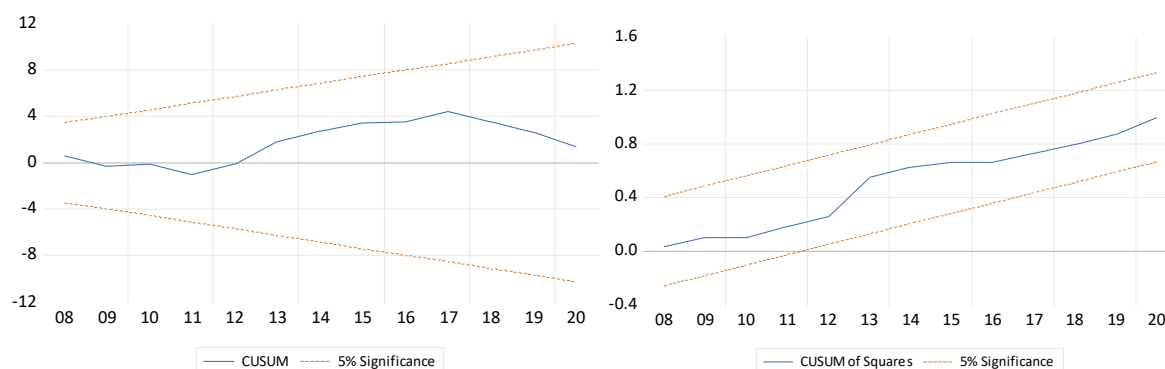
Authors’ own computations.

Table 5 provides a summary of the diagnostic results. The Jarque-Bera normality test has a probability value of 0.962655 that is greater than 0.05, which is an indication that the model is normally distributed as the null hypothesis is accepted. The Breusch-Godfrey serial correlation provides positive feedback that the model is not suffering from serial correlation in the model. When it comes to the heteroskedasticity tests, the Breusch-Pagan-Godfrey and the ARCH also provide that the null hypothesis cannot be rejected, as the condition of no heteroskedasticity is satisfied. The stability tests are presented next.

4.3.2. Stability tests

The Cusum and Cusum of squares test is performed to check the stability of the model.

Figures 1 and 2: Cusum and Cusum of squares graphs



Authors' own computations.

The Cusum and Cusum of squares graphs are presented in figures 1 and 2. The results indicate that the parameter of the model is stable. Both the fitted lines of the Cusum and Cusum of squares trends within the 5% significance critical two lines. This analysis shows that the model used in the study is valid, stable and can be used to predict in future references.

5. CONCLUSION AND RECOMMENDATIONS

The study analysed the implications of monetary policy and exchange rate volatility in South Africa, focusing on the periods from 1991 to 2020. The econometric methodology employed was the autoregressive distributed lag method. Various econometric techniques to ensure the stability of the model and the kind of influence the monetary policy and exchange rate volatility have on investment were conducted. The traditional ADF and PP unit root tests were also employed, which revealed that investment, interest rates, money supply, inflation and exchange rate volatility are integrated of order zero and one. The autoregressive distributed lag presented that there is a cointegrating relationship among the variables used in the study. In the long-run, money supply positively contributed to investment. Money supply was the highest positive and significant contributor. The method further showed that interest rates had a negative effect on investments and is insignificant, while inflation had a positive effect on investment but also insignificant. The exchange rate volatility significantly had a negative effect on investment. The study further showed

that the model used is normally distributed, there is no serial correlation and no heteroskedasticity problems, as the model is valid and stable.

Money supply must be considered as one of the instruments of investment, as it was found to be the highest contributor to investment activity in South Africa. Thus, investments can be enhanced as money supply increases, while interest rates decline. Proper management is however required, as some major contributing factors can lower levels of investment within the country, and that can further hinder the progress of the economy. Appropriate measures must also be put in place by the government and monetary authorities to deal with challenges that will tend to hinder investment activity within South Africa. Policymakers must also implement regulatory exchange rate policies that can assist to advance economic growth and promote investment. Investment is an important source for development and economic prosperity. Hence, maintaining a higher rate of investment is of utmost importance.

REFERENCES

- Agbonrofo, H., & Ajibola, O. (2023). Monetary policy and manufacturing sector development in Sub-Saharan Africa: evidence from the CFA franc zone. *Journal of Economics and Allied Research*, 8(1), pp.210-225.
- Ajao, M.G. (2015). The determinants of real exchange rate volatility in Nigeria. *Ethiopian Journal of Economics*, 24(2), pp.43-62.
- Andreoni, A., & Tregenna, F. (2020). Escaping the middle-income technology trap: a comparative analysis of industrial policies in China, Brazil, and South Africa. *Structural Change and Economic Dynamics*, 54, pp.324-340.
- Anyanwu, Felicia, Amalachukwu Ananwude, & Ngozi Okoye-, (2017). Exchange rate policy and Nigeria's economic growth: a granger causality impact assessment. *International Journal of Applied Economics Finance and Accounting*, 1, pp.1–13.
- Asari, F.F.A.H., Baharuddin, N.S., Jusoh, N., Mohamad, Z., Shamsudin, N., & Jusoff, K., (2011). A vector error correction model (VECM) approach in explaining the relationship between interest rate and inflation towards exchange rate volatility in Malaysia. *World Applied Sciences Journal*, 12(3), pp.49-56.
- Aslam, A.L.M. (2016). Impact of money supply on Sri Lankan economy: an econometric analysis. *International Letters of Social and Humanistic Sciences*, 67, pp.11-17.
- Assenza, T., Heemeijer, P., Hommes, C.H., & Massaro, D. (2021). Managing self-organization of expectations through monetary policy: a macro experiment. *Journal of Monetary Economics*, 117, pp.170-186.
- Bakari, S. (2022). On the relationship between domestic investment, exports and economic growth: evidence from Greece. *Journal of Smart Economic Growth*, 7(3), pp.13-34.

-
- Bello, S., Oyedokun, G.E., & Adeolu-Akande, M. (2021). Financial inclusion and gender-induced poverty in Nigeria. *International Journal of Research in Business and Social Science* (2147-4478), 10(8), pp.266-274.
- Benarbia, R., & Aiboud, K. (2023). The impact of financial liberalization on the effectiveness of monetary policy in Algeria. *Management Dynamics in the Knowledge Economy*, 11(1), pp.63-83.
- Buabeng, E., Ayesu, E.K., & Adabor, O. (2019). The effect of exchange rate fluctuation on the performance of manufacturing firms: empirical evidence from Ghana. *Economics Literature*, 1(2), pp.133-147.
- Chamunorwa, W., & Choga, I. (2015.) Exchange rate volatility and export performance in South Africa: (2000-2014). *Asian Economic and Financial Review*, 5(10), pp.1174-1186.
- Cloyne, J., Ferreira, C., Froemel, M., & Surico, P. (2023). Monetary policy, corporate finance, and investment. *Journal of the European Economic Association*, jvad009.
- Devereux, M.B., & Charles, E. (2003). Monetary policy in the open economy revisited: price setting and exchange-rate flexibility. *The Review of Economic Studies*, 70, pp. 765–83.
- Dickey, D. A., & Fuller, W.A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American Statistical Association*, 74(2), pp.427–431.
- Dixit, A.K., Robert, K.D., & Robert, S.P. (1994). *Investment under uncertainty*. Princeton: Princeton University Press.
- Duasa, J. (2007). Determinants of Malaysian trade balance: an ARDL bound testing approach. *Global Economic Review*, 36(1), pp. 89-102.
- Efanga, U. O., Ugwuanyi, G. O., & Ogochukwu, C.O. (2020). Analysis of the impact of oil revenue on economic growth of Nigeria between 1981 and 2018. *IOSR Journal of Economics and Finance*, 11(2), pp.25-34.
- Hicks, J.R. (1937). Mr. Keynes and the “classics”; a suggested interpretation. *Econometrica: Journal of the Econometric Society*, pp.147-159.
- Kabir, A. (2022). Monetary policy impact on private sector performance in Nigeria. *Journal of Economics and Allied Research*, 7(3), pp.1-12.
- Katusiime, L., Agbola, F.W., & Shamsuddin, A. (2016). Exchange rate volatility–economic growth nexus in Uganda. *Applied Economics*, 48(26), pp.2428-2442.
- Kilicarslan, Z. (2018). Determinants of exchange rate volatility: empirical evidence for Turkey. *Journal of Economics Finance and Accounting*, 5(2), pp.204-213.
-

-
- Latief, R., & Lefen, L. (2018). The effect of exchange rate volatility on international trade and foreign direct investment (FDI) in developing countries along “one belt and one road”. *International Journal of Financial Studies*, 6(4), p.86.
- Mahonye, N., & Zengeni, T. (2019). Exchange rate impact on output and inflation: a historical perspective from Zimbabwe. *African Journal of Science, Technology, Innovation and Development*, 11(3), pp.347-358.
- Meyer, D.F., & Sanusi, K.A. (2019). A causality analysis of the relationships between gross fixed capital formation, economic growth and employment in South Africa. *Studia Universitatis Babeş-Bolyai Oeconomica*, 64(1), pp.33-44.
- Min, F., Wen, F., & Wang, X. (2022). Measuring the effects of monetary and fiscal policy shocks on domestic investment in China. *International Review of Economics & Finance*, 77, pp.395-412.
- Mlambo, C. (2020). Exchange rate and manufacturing sector performance in SACU states. *Cogent Business & Management*, 7(1), p.1787735.
- Morina, F., Hysa, E., Ergün, U., Panait, M., & Voica, M.C. (2020). The effect of exchange rate volatility on economic growth: Case of the CEE countries. *Journal of Risk and Financial Management*, 13(8), p.177.
- Munir, K. (2018). Dynamic effects of monetary policy on output and prices in Pakistan: a disaggregate analysis. *Journal of the Asia Pacific Economy*, 23(1), pp.99-118.
- Ngondo, M., & Khobai, H. (2018). The impact of exchange rate on exports in South Africa.
- Oaikhenan, H.E., & Aigheyisi, O.S. (2015). Factors explaining exchange rate volatility in Nigeria: theory and empirical evidence. *Economic and Financial Review*, 53(2), p.3.
- Obstfeld, M., & Kenneth, R. (1998). Risk and exchange rates. *National Bureau of Economic Research*.
- Olanipekun, D.B., & Akeju, K.F. (2013). Money supply, inflation, and capital accumulation in Nigeria. *Money*, 4(4), pp. 25-34.
- Pesaran, M.H., Shin, Y., & Smith, R.J. (2001). Bounds testing approaches to the analysis of level relationship. *Journal of Applied Econometrics*, 16(3), pp.289–326.
- Pesaran, M.H. (2015). *Time series and panel data econometrics*. Oxford University Press.
- Phillips, P.C. B., & Perron, P. (1988). *Testing for unit root in regression*. New York: Oxford University Press, 72(2), pp.335–346.
- Sam, C.Y., McNown, R., & Goh, S.K. (2019). An augmented autoregressive distributed lag bounds test for cointegration. *Economic Modelling*, 80, pp.130-141.
-

Sanusi, K.A., Hassan, A.S., & Meyer, D.F. (2019). Non-linear effects of public debt on economic growth in Southern Africa Development Community (SADC) Countries. *International Journal of Economics & Management*, 13(1).

Schnabl, G. (2008). Exchange rate volatility and growth in small open economies at the EMU periphery. *Economic Systems*, 32, pp.70–91.

Shahid, M. (2014). Effect of inflation and unemployment on economic growth in Pakistan. *Journal of Economics and Sustainable Development*, 5(15), pp.103-106.

Umoru, D., Effiong, S.E., Umar, S.S., Okpara, E., Iyaji, D., Oyegun, G., Iyayi, D., & Abere, B.O. (2023). Exchange rate volatility transmission in emerging markets. *Corporate & Business Strategy Review*, 4(2), pp.37-47.

Usio, U.T., & Adofu, I. (2021). Lending rate and manufacturing sector growth in Nigeria. *Journal of Economics and Allied Research*, 6(2), pp.235-244.

SSIRC 2023-156**THE IMPACT OF BUSINESS CONFIDENCE, UNEMPLOYMENT, AND INFLATION ON SOUTH AFRICA'S ECONOMIC GROWTH****T.A. Mashiane**

University of Limpopo, South Africa.

D.M. Kgomo

University of Limpopo, South Africa.

ABSTRACT

Developed economies around the world have managed to maintain consistent growth throughout the 21st century due to rapid and constant growth, while developing economies scramble for survival. An analysis of the impact of business confidence, unemployment, and inflation in the context of the nation's economy was the main goal of this study. Using quarterly time series data from 2010Q1 to 2022Q1, a quantitative research methodology was employed. To ascertain the relationship, short- and long-term impacts of business confidence, inflation and unemployment on South Africa's economic growth, an autoregressive distributed lag model, granger causality, diagnostic testing and stability tests were used. The study's findings show a substantial long-term link among the independent variables and the level of economic growth in the South African economy. The econometric findings also include unit root test results that are integrated of order zero and one. The cointegration analysis indicates that the variables used in the research are co-moved in the long term and have a positive relationship. The Granger causality test highlights that there is no causality between economic advancement and unemployment in South Africa. However, there is bidirectional relationship between business confidence and economic growth. The diagnostic tests, such as the Jarque-Bera, suggest that the variables in the research are normally dispersed. Encouraging more openness and adopting macroeconomic policies to promote sustainable economic growth and controlling unemployment are recommended for the South African government.

KEYWORDS: Economic growth, inflation, BCI, unemployment, autoregressive distributed lag, Granger causality.

1. INTRODUCTION

Developed economies around the world have managed to maintain consistent growth throughout the 21st century due to rapid and constant growth, while developing economies scramble for survival (Kose, 2022). Irrespective of the status of a country's economic and social development, unemployment and slow economic growth remain two of the major issues any economy faces. Inconsistent growth has been cited as a crucial factor in the rise of unemployment throughout time

(Madito & Khumalo, 2014). According to the definition provided by Burger and Calitz (2021), Gross Domestic Product (GDP) refers to the total sum of the markets' worth of all the products and services that are manufactured and provided within the geographical boundaries of a nation. This can be viewed as an effort to increase production capacity to generate more output, as explained by Yusri (2019). However, according to the World Bank Group (2022), there has been a recent downward revision in the world-wide growth projection, from 5.7% in 2021 to 2.9% in 2022, which is a significant decline from the previous projection of 4.1% in January. This is due to the conflict in Ukraine, which has had a negative impact on economic activity, such as investment and trade, in the short term, and is expected to continue at the same rate until 2023-2024. To reach the goal of controlling inflation and boosting the economy, it is crucial to keep inflation expectations steady and lessen the need for strict policies. According to Kose (2022), this can be accomplished by clearly conveying decisions about monetary policy, having trustworthy monetary policy structures, and maintaining the autonomy of the central bank.

An investigation by the World Bank (2018), showed that South Africa's economy has faced significant challenges over the past decade due to its economic growth path. Despite experts predicting an improvement in the financial and real sectors after the end of the financial calamity in 2009, the republic has struggled to achieve pre-crisis growth rates, unlike many other developing countries. A study conducted by the OECD (2017), the recent economy is stalled by factors such as low consumer and commercial spending and high uncertainty in policies. Phiri (2014) states that the core objective of macroeconomic strategies is to sustain high economic growth while keeping inflation and unemployment low and encouraging investments that benefit the overall economy.

2. LITERATURE REVIEW

This section presents the Endogenous Growth Theory, Phillips Curve and Okun's Law. Several empirical reviews on the correlation among inflation, business confidence and unemployment are outlined.

2.1 Theoretical framework

According to Chandra (2022), the Endogenous growth theory states that workers with supplementary understanding, education, and training can aid in the evolution of technology. These skilled workers emphasise the need of governments actively supporting technological innovation. Chandra (2022) further states in the theory that firms may not be motivated to invest in new technology, according to the free market classical approach. This is because they will scrap to thrive in economical markets and the approach emphasises that both capital and labour productivity upsurge (Prettner, 2013). This theory speaks to how increased labour productivity has grown returns rather than diminishing returns and that a knowledge-based economy places a greater emphasis on spill-over benefits (Schilirò, 2019). Hence, this would then lead to more consistent returns to investment, labour would grow exogenously, and increased overall productivity.

Williams Phillips first identified a consistent non-linear adverse link between wage inflation and unemployment in 1958 (Nell, 2018). The Phillips Curve Theory suggests that changes in labour demand leads to changes in the money wage rate, and as inflation causes economic growth, it should lead to an increase in employment opportunities, thus reducing unemployment, according to Kabundi, Schaling and Some (2019). However, focusing on reducing unemployment alone can also drive-up inflation. Sumner (2012) explains that inflation is essentially a by-product of a higher aggregate demand intended to create more employment and real growth. As a result of an increased labour demand, workers have greater bargaining power, leading to faster nominal wage growth. These further boosts aggregate demand, which raises prices. Meanwhile, firms can raise their prices to maintain their profit margins, pushing up the price level even further in response to an advanced nominal wage demand (Sumner, 2012).

Okun's Law designates a relationship between a country's unemployment and production losses. Okun (1962) stated that a 1% rise in unemployment usually results in a 2% drop in the GDP. However, Kreishan (2011) found that his research did not support this law. Similarly, Lal, Muhammad, Jalil and Hussain (2010) argued that economic growth does not affect the joblessness problem. This suggests that the results of the Okun's coefficient vary from nation to nation and period to period. Porrás-Arena and Martín-Román (2019) emphasise the significance of self-employment in any economy, whether in a developed or developing nation. There is no concrete evidence linking self-employment to Okun's Law, but the fundamental characteristics of self-employment, such as investor confidence in domestic business and its distinct evolution from compensated employment, suggest a connection between the two.

2.2 Empirical literature

Numerous studies conducted on various economies have explored the association among unemployment, economic growth, and inflation. The effect of economic growth and inflation on unemployment is contingent on the labour market arrangement and other contextual factors surrounding that period. A study carried out in Nigeria by Ajie, Ani and Ameh (2017) using data spanning from 1981 to 2015 found that a 1% increase in the unemployment rate led to a decline in GDP of about 2.08%, while a 1% increase in the inflation rate steered to a GDP reduction of approximately 0.5%. However, Hassan (2015) argued that despite the Nigerian economy's annual growth rate of 6% between 2004 and 2011, it was unable to generate enough employment opportunities, leading to increased unemployment rates, poverty, and inequality. In fact, as the GDP growth rate improved, the unemployment rate followed suit.

Meyer, Masehla and Kot (2017) conducted a study with a time series data analysis with a period from 1996 to 2016, about the importance of eliminating unemployment, which will improve economic development and subsequently contribute positively to the economic growth in South Africa. The Granger Causality test indicated that economic development causes economic growth, and the results showed a positive link between economic development and growth (Meyer et al., 2017). According to literature and econometric evidence, unemployment has an adverse impact on the performance of the overall economy but with the correct procedures and measures put in place, a thriving economy is predicted to emerge (Meyer, Ferreira & van der Schyff, 2019). Aminu

and Anono (2012), and Rafindadi (2012) explored the correlation between unemployment and inflation by utilising OLS and Threshold models. Both studies discovered a negative, nonlinear correlation between output and unemployment over an extended period using their respective model and time series. Anning, Tuama and Darko (2017) also conducted a study, and the results revealed that there is steadiness effect between unemployment and inflation over a prolonged period.

Odhiambo (2014) inspected the link among inflation, investment, and economic growth in Tanzania and established a one-way contributory link from inflation to economic growth. Bittencourt (2012) found that inflation negatively affected growth in four Latin American countries, with data stretching from 1970 to 2007, when it surpassed a certain unsustainable level. Kremer, Bick and Nautz (2013), and Tung and Thanh (2015) also found evidence of an adverse link between inflation and growth, but only after inflation had reached a particular threshold. Meanwhile, Omri and Kahouli (2014) discovered a bi-directional causal relationship between domestic investment and economic growth, while Lean and Tan (2011) failed to find any evidence of causality between domestic investment and growth.

Sum's (2012) research indicates that shocks to unemployment and interest rates negatively impact business confidence. Additionally, consumer confidence and business confidence are found to have a causal outcome on unemployment, while inflation causes a causal effect on consumer confidence. However, Sum found that inflation does not have a causal effect on unemployment. In contrast, Mosikari (2013) found no causal link between GDP growth and the unemployment rate, with neither variable Granger-causing the other. Meyer (2017) noted that despite rapid economic progress in South Africa driven by commodity exports, the lack of value-added businesses limited the positive impact on employment creation.

3. METHODOLOGY

In this section, the research methodology is discussed. The section also examines the data sources, model specification, and estimation techniques.

3.1 Data

The study utilised quarterly time series secondary data that start from 2010Q1 until 2022Q1. The data consist of four variables, namely, GDP, which is a proxy for economic growth: business confidence index (BCI), unemployment rate and the inflation rate. Both the unemployment rate and inflation rate were acquired from the South African Reserve Bank. The BCI and GDP were obtained from Quantec Easy Data. The data was processed using E-Views 12 econometric software.

3.2 Model specification

The model used in the study is meant to assess the nexus among business confidence, inflation and unemployment and economic growth in South Africa. The linear regression model has been

constructed where GDP is the function of business confidence, unemployment, and inflation. The model is expressed in function form as follows:

$$\text{Economic growth} = f(\text{Business confidence, unemployment, inflation}) \quad (1)$$

$$GDP = f(BCI, UNEM, INF) \quad (2)$$

The linear logarised model is presented as follows:

$$LGDP_t = \beta_0 + \beta_1 LBCI_t + \beta_2 UNEM_t + \beta_3 INF_t + \mu_t \quad (3)$$

Equation 3 represents the short-run equation. LGDP denotes the log of GDP, LBCI denotes the log of BCI, UNEM represents the unemployment rate and INF stands for the inflation rate. β_0 incorporated in the linear regression equation signifies the constant and the β_1 , β_2 and β_3 represents the coefficients of the explanatory (independent) variables. μ_t signifies the error term.

3.3 Estimation techniques

In this research, the methods used for estimation include unit root testing, cointegration testing, diagnostic testing, and stability testing. Estimation in econometrics refers to using statistical values derived from a sample to estimate population parameters (Nkoro & Uko, 2016). The information obtained from the sample can be used to determine the probable range of the missing information through different formal or informal processes.

3.3.1 Stationarity /Unit root test

To ensure accurate analysis of time series data, it is imperative to first execute a unit root test to address the issue of stationarity. Analysts need to address the issue of stationarity before conducting regression analysis on time series data (Mutyba, 2013). If the time series data are not stationary, regression analysis may produce misleading results. To address this, variables should be differenced to eliminate the unit root. If the variables are still not stationary at the initial level, further differencing may be necessary (Gujarati & Porter, 2009). In this research, the Augmented Dickey-Fuller (ADF) and Phillips Perron (PP) tests were used to assess stationarity.

Nkoro and Uko (2016) explain that an ADF test is utilised to regulate if a time series sample comprises a unit root. The null hypothesis for this test is usually stationarity or non-stationarity, depending on which version of the test is applied. The ADF test and the PP test are two methods used to deal with the issue of a unit root in time series data. The ADF test involves adding lags of the time series as explanatory variables in the regression equation to detect the presence of a unit root. The PP test, on the other hand, examines the null hypothesis that a time series is integrated of order 1 and is often employed in time series analysis. This test is based on the same null hypothesis as the Dickey-Fuller (DF) test and is commonly utilised to assess the presence of a unit root in time series data. The PP test addresses the issue that the underlying process affecting the time series data may have a higher level of autocorrelation than the test equation allows, which could result in endogeneity and thereby invalidate the DF t-test. On the other hand, the ADF theory seeks to test the hypothesis that the parameter ϕ in the time series is equal to 1.

$$Y_t = \Delta(y_t - 1) + \mu_t \quad (4)$$

Where y_t is the appropriate time series, Δ is the first difference operator, t is a linear trend, and μ_t is the employed error term.

Thus:

$$H_0: \text{series has a unit root} \quad (5)$$

$$H_1: \text{series has no unit root} \quad (6)$$

The denial of the null hypothesis under these tests means that the series does not have a problematic unit root.

3.3.2 Autoregressive Distributed Lag (ARDL) bounds test

In this study, the ARDL bounds test was utilised to examine the association among variables as it is better suited for small and restricted sample sizes, as stated by Pesaran, Shin, and Smith (2001). One benefit of ARDL is that it does not necessitate that variables have the same integration order, nor does it need prior knowledge of their integration properties; additionally, it yields unbiased estimates of the long-term model (Belloumi, 2014). The ARDL bounds test was used in this study to examine the link amongst the variables, with both lower and upper critical restrictions being calculated. If the F-statistic exceeds the upper critical bound, the null hypothesis is null, indicating the presence of cointegration, as stated by Ncanywa and Letsoalo (2018). Additionally, Menegaki (2019) explains that a distributed lag model is used in time-series data to predict the present values of a dependent variable using a regression equation that incorporates both present and lagged values of an explanatory variable.

3.3.3 Granger causality test

The Granger causality test, as established by Granger (1969), is a statistical technique utilised to determine whether one-time series can predict another. It evaluates whether previous values of one-time series can forecast future values of another time series and is a hypothesis test that examines the usefulness of one-time series in predicting another. As noted by Box, Jenkins, Reinsel, and Ljung (2015), the probability value is compared to a significance level, and if the probability value is below the significance level, the hypothesis is rejected. According to Jarociński and Maćkowiak (2017), Granger causality is a statistical model of causality, and it relies on estimation. Granger causality proposes that if variable x^1 granger-causes variable x^2 , then past values of variable x^1 should provide evidence that improves the prediction of variable x^2 , over and above the information provided by past values of variable x^2 alone.

The test does not indicate that changes in the y variable are caused by movements in the x variable. Instead, the method examines how past values of both x and y variables can explain the current value of x variable (Aworinde, 2013). If time series x Granger-causes time series y , it means that the patterns in x are repeated approximately in y after some time lag, and past values of x can be used to forecast future values of y (Troster, 2018). In other words, if a variable x that evolves over time can provide better predictions of the value of y by using its own previous values and the previous values of x , then x is said to Granger-cause y (Aworinde, 2013).

3.3.4 Diagnostic and stability tests.

To ascertain the stability of the model, several diagnostic tests can be utilised, such as the normality test. This test involves evaluating the probability value through tests like Jarque-Bera, Ramsey Reset test, Arch test, White test, Harvey test, Breusch-Godfrey, and L-Jung Box Q. The normality test can be conducted exhaustively using Jarque-Bera and its related p-value, along with kurtosis. A p-value larger than 0.05 specifies that the residuals of the model are typically dispersed, which is a positive sign. The normality of the model can also be visually inspected, where a bell-shaped distribution signifies an even distribution of residuals. However, the issue of serial correlation may arise if it is determined that the residuals are correlated, as indicated by the serial correlation test, as noted by Wycliffe and Muriu (2014) and Magableh and Ajlouni (2016).

4. RESULTS AND DISCUSSION

4.1. Stationarity /Unit root test

Formal stationarity results are provided in Table 1. The outcomes for both ADF and PP test results are as follows:

Table 1: Unit root test results (2010Q1-2022Q1)

| Series | Model | Level | | 1 st Difference | |
|--------|-------------------|-----------------|----------------|----------------------------|----------------|
| | | ADF t-statistic | PP t-statistic | ADF t-statistic | PP t-statistic |
| LGDP | Intercept | -2.749022 | -4.355834*** | -10.20691*** | -15.80192*** |
| | Trend & intercept | 0.749022 | -5.459902*** | -6.826550*** | -19.00714*** |
| | None | 0.666749 | 1.098907 | -10.01077*** | -14.31759*** |
| UNEM | Intercept | -0.00549* | -0.753925 | -10.50066*** | -11.93620*** |
| | Trend & intercept | -3.34015* | -3.245921* | -10.67675*** | -17.88626*** |
| | None | 1.242776 | 1.640698* | 10.36341*** | -10.87597*** |
| LBCI | Intercept | -1.665169 | 1.465982 | 6.887856*** | -8.382946*** |
| | Trend & intercept | -2.926884 | -3.031678 | -6.943844*** | -9.884642*** |
| | None | 0.634672 | -1.022053 | -6.760234*** | -7.811358*** |
| INF | Intercept | -1.1546** | -4.230305*** | -9.025928*** | -13.96944*** |
| | Trend & intercept | -4.523484 | -4.403849** | -9.375358*** | -21.24622*** |
| | None | -0.134856 | -0.940030 | -9.154937*** | -14.21555*** |

Note: *Reject the null hypothesis at 10%; **at 5% and 10%; ***at 1%, 5% and 10%
Authors' own computation.

Table 1 displays the outcomes of the ADF and the PP test for testing stationarity of all the variables analysed in the research. The PP test outcome at levels shows that the GDP at the intercept, trend,

and intercept, has no unit root. The null hypothesis is rejected at 1% significance level. To obtain stationarity at the other procedures under the ADF and PP test, GDP was differenced once, the ADF and PP t-statistics outcome shows that the variable is stationary. The null hypothesis of non-stationarity is rejected at 1% significance level. Unemployment is stationary at levels only at the ADF intercept, and trend and intercept. Also at the PP test, trend, and intercept and none at 10% significance level. Unemployment was further differenced and becomes stationary at 1st difference under ADF none and PP intercept at 1% significance level. BCI is non-stationary at levels for both tests, after 1st differencing the variable is stationary. Inflation is stationary at intercept in the ADF test, and for the PP test at intercept and, trend and intercept at levels. Inflation is non-stationary at levels at the trend and intercept for ADF, and at none for both the ADF and PP test but becomes stationary after being differenced. All variables are stationary and are integrated of order zero and one. These findings suggest that the model consists of variables that are integrated at different orders.

4.2. Autoregressive Distributed Lag (ARDL) test

The hypothesis for the ARDL cointegration bounds tests is as follows: Null hypothesis (H_0) is that there is no cointegration and the alternative hypothesis (H_1) is that there is a cointegrating relationship among the variables. For the null hypothesis to be rejected, the F-statistics value must lie above all the critical values of the lower bound and upper bound.

Table 2: ARDL cointegration bounds results.

| Test statistic | Value | Significant level | Critical value bounds | |
|----------------|--------------|-------------------|-----------------------|-------------------|
| | | | Lower bound I (0) | Upper bound I (1) |
| F- statistic | 10.51359**** | 10% | 2.37 | 3.02 |
| K value | | 3 5% | 2.79 | 3.67 |
| | | 2.5% | 3.15 | 4.08 |
| | | 1% | 3.65 | 4.66 |

Authors' compilation.

After calculating the F-statistics, which is 10.51359, it was found that it is higher than the critical values for all levels of significance. This results in the rejection of the null hypothesis, which suggests that no cointegration is found. As a result, the ARDL bounds test demonstrates that there is evidence of cointegration between the variables, which implies that in the long run, these variables move together.

Table 3: Short-run results (2010Q1 – 2022Q1)

| Variables | Coefficient | Probability |
|--------------|-------------|-------------|
| LBCI | 0.655467 | 0.0005 |
| Unemployment | -0.002604 | 0.0007 |
| Inflation | 0.008868 | 0.0000 |
| C | 4.164012 | 0.0000 |
| ECT | -0.671967 | 0.0000 |

Authors' compilation.

Table 3 demonstrates the outcomes of the short-term coefficients for the era from 2010Q1 to 2022Q1, which is intended to investigate the immediate correlation between the variables, namely GDP, unemployment, BCI, and inflation. The BCI has a coefficient of 0.655467 in the short run, which proposes that a 1% rise in BCI is predicted to rise economic growth by 65.54%. The BCI with a probability value of 0.0005, indicating a statistically significance value at the 1% level. Meanwhile, unemployment with a coefficient of -0.002604, implying that a 1% rise in unemployment is likely to reduce economic growth by 0.26%. The unemployment variable has a probability value of 0.0007, significant at 1%.

Speed of adjustment is given at -0.671967 and a probability significance of 0.000, which is significant at 1%. According to the theory of the ECM, the small values which are trending towards -1, specify that economic agents eradicate a greater proportion of the disequilibrium per period (Box et al., 015). The speed of adjustment of -0.671967, is a percentage of 67.19%. This means that only 67,19% of the disequilibrium will be rectified in the initial period and the remaining disequilibrium will be corrected in the remaining quarter.

Inflation has a coefficient of 0.008868 in the short-term table. This coefficient indicates that if there is a 1% increase in inflation, there will be an economic growth increase of 0.88%. Probability of inflation is 0.0000, meaning it is statistically substantial at the 1% level of significance. The findings of this report for the short-run coefficient align with Yusri’s (2019) conclusions, which state that it is challenging to manage or predict the outcomes of the connection concerning certain economic variables in the short run due to the economic conditions of a reduced production duration compared to the long run. The positive relationship between the variables in the short term is supported by the coefficients of the independent variables mentioned earlier. Tenzin (2019) highlights that inflation, unemployment, and economic growth are negatively related in the short term, but they tend to have a positive relationship in the long term.

Table 4: Long-run results (2010Q1 – 2022Q1).

| Variables | Coefficient | Probability |
|--------------|-------------|-------------|
| LBCI | 0.154171 | 0.1113 |
| Unemployment | 0.003874 | 0.0132 |
| Inflation | -0.013197 | 0.0007 |
| C | 6.196747 | 0.0000 |

Authors’ compilation.

$$LGDP = 0.1541717LBCI + 0.003874UNEM - 0.013197INF \tag{7}$$

Table 4 and equation 7 present the findings of the long-term coefficients for the period of 2010Q1 to 2022Q1, which aims to establish the long-term association among the variables: GDP, unemployment, BCI, and inflation. In the long run, the BCI has a coefficient of 0.154171, implying that a 1% rise in the BCI is projected to increase economic growth by 15.41%. However, the probability of BCI is 0.1113, statistically insignificant at the 5%. On the other hand, the unemployment variable has a value of 0.003874, suggesting that a 1% increase in unemployment is expected to increase economic growth by 0.387%. The probability value of unemployment is

0.0132, indicating that it is statistically significant at the 5% level. According to literature and econometric evidence, unemployment has an adverse effect on the performance of the overall economy but with the correct policies and measures put in place, a thriving economy is predicted to emerge (Meyer et al., 2019). Regarding inflation, it has a coefficient of 0.013197, which implies that a 1% increase in the inflation results into a 0.131% decrease in economic growth. The probability value of inflation is 0.0007, indicating that it is statistically significant at the 1%. Bittencourt (2012) used time series data for four Latin American nations between 1970 and 2007 and discovered that inflation had an undesirable influence on growth in the region once inflation rates or levels exceeded a certain threshold that was no longer economically sustainable. The long-term coefficient results have a positive constant value of 6.196747, and the outcomes suggest that the economic variables have a negative association with each other in the long run.

4.3. Granger causality test

Table 5: Granger causality results (2010Q1 – 022Q1)

| Variables | F-statistic | Probability value | Conclusion |
|-------------|-------------|-------------------|---------------------------|
| LBCI & LGDP | 6.33241 | 0.0039* | LBCI granger causes LGDP. |
| LGDP & LBCI | 8.22022 | 0.0010* | LGDP granger causes LBCI. |
| UNEM & LGDP | 0.90114 | 0.4138 | No causality. |
| LGDP & UNEM | 0.56647 | 0.5718 | No causality. |
| INF & LGDP | 0.32679 | 0.7231 | No causality. |
| LGDP & INF | 1.73682 | 0.1885 | No causality. |
| UNEM & LBCI | 0.87438 | 0.4246 | No causality. |
| LBCI & UNEM | 3.29551 | 0.0468* | LBCI granger causes UNEM. |
| INF & LBCI | 0.37841 | 0.6873 | No causality. |
| LBCI & INF | 4.38754 | 0.0186* | LBCI granger causes INF. |
| INF & UNEM | 0.36466 | 0.6966 | No causality. |
| UNEM & INF | 3.51997 | 0.0386* | UNEM granger causes INF. |

Authors' compilation

Notes: *reject the causality at a 5% level of significance

Table 5 displays results of the Granger causality test, which is employed to define if the macroeconomic variables used explain changes and fluctuations in one another over the long run. Grounded on the results obtained, it is apparent that the BCI granger causes GDP with a probability number of 0.0039 that is significant at 1%. In addition, GDP granger causes BCI with a probability of 0.0010 that is significant at 1%. This indicates a bidirectional relationship between the BCI and GDP, as they cause each other. Another finding is that UNEM does not granger-cause BCI, but BCI granger-causes UNEM, which indicates unidirectional causality between the variables, running from BCI to UNEM, since the probability of BCI is significant at 5%. This implies that BCI also granger causes GDP since the probability values suggest that the variables are significant at 5%. Furthermore, BCI granger causes INF, with a probability of 0.0186 that is significant at the 5%. This indicates that the type of causality between these two variables is unidirectional causality that runs from BCI to INF.

The probability value of 0.6966 suggests that there is no apparent causal relationship between INF and UNEM. However, a significant unidirectional causal link exists amongst UNEM and INF with

a probability value of 0.0386 at a 5%. There is also no causal connection between UNEM and GDP, as proven by high probability values that are not significant at any level of significance. Likewise, there is no causal link between INF and GDP. The results indicate a bi-directional causality link among BCI and GDP, with causality from BCI to GDP with a probability value of 0.0039 and from GDP to BCI with a probability value of 0.0010. Furthermore, there is a uni-directional causality relationship between BCI and UNEM that goes from BCI to UNEM, with a probability value of 0.0468. Another uni-directional causality relationship exists between BCI and INF, which runs from BCI to INF, with a probability value of 0.0186. Finally, UNEM and INF has a uni-directional causality relationship that runs from UNEM to INF, with a probability value of 0.0386. As revealed by Anning et al. (2017), the outcomes showed that there is a balance outcome and connection among unemployment and inflation over an extended period.

4.4. Diagnostic and stability tests

4.4.1. Diagnostic results

Table 6: The diagnostic testing results (2010Q1 – 2022Q1)

| Test | H_0 | Test statistic | P-value | Conclusion |
|-------------|--|----------------------|------------|--|
| Jarque-Bera | H_0 : Variable is normally distributed. Reject H_0 if p-value \leq level of significance. | JB (2)= 0.556866 | 0.756969 | We accept the null hypothesis (H_0) because the probability is larger. The variables are normally distributed. |
| ARCH LM | H_0 : No autoregressive conditional heteroscedasticity up to order q. Reject H_0 if p-value \leq level of significance | $nR^2(2)$ = 0.099669 | 0.7522 | We are accepting the null hypothesis (H_0) because the probability is more than 0.05%. |
| Harvey | H_0 : No heteroscedasticity H_1 : Heteroscedasticity of some unknown form. Reject H_0 if p-value \leq level of significance | = 16.22825.27248 | 0.36700083 | We accept the null hypothesis (H_0) because the probability is more than 0.05%. |

Authors' compilation.

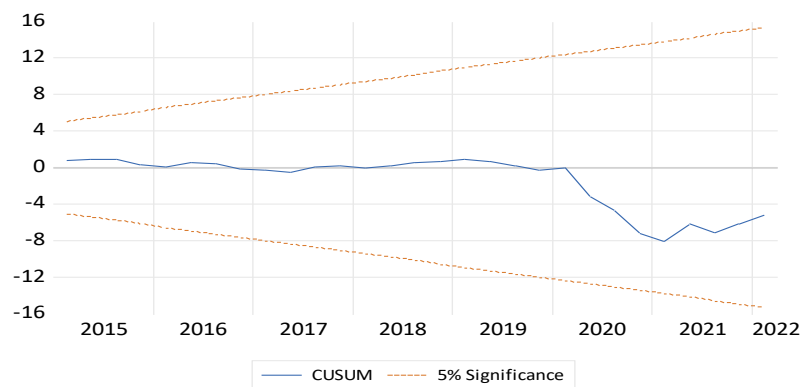
The study conducted diagnostic tests for correlation, normality, and heteroscedasticity at significance levels of 5%. Results of the Jarque-Bera normality test showed that the residuals of the regression are normally dispersed, as the probability of 0.756969 exceeded all levels of significance. To determine whether the model is free from heteroscedasticity, the Harvey and ARCH tests were performed, and the probability values of all the tests exceeded the three levels of significance.

4.4.2. Stability tests

The study employed two stability tests in the form of the cumulative sum (CUSUM) test and the CUSUM of squares test. They show whether the regressed model is stable or not. If the model is stable for both CUSUM and CUSUM of squares tests, the CUSUM line and CUSUM of squares line will lie between the 5% level of significance lines (Gujarati, 2021). If the model is not stable, the CUSUM and CUSUM of squares lines will lie outside the 5% level of significance line. According to Asteriou and Hall (2021), in a model of multiple linear regression, the stability test determines the stability or rather the consistency of the coefficients throughout the model. The

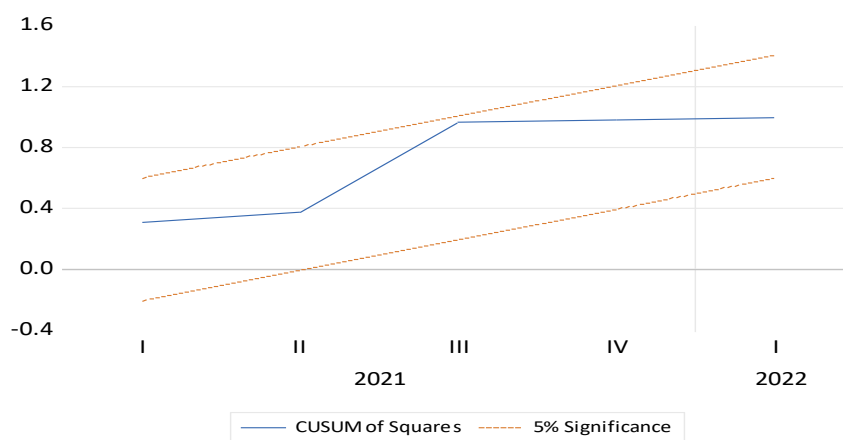
stability tests include three different categories that are used to measure and determine the consistency of the coefficients in the model. Values in the order outside the anticipated variety indicate structural variation in the model over time under the null hypothesis of coefficient constancy (Asteriou & Hall, 2021).

Figure 1: CUSUM test graph



Authors' compilation.

Figure 2: CUSUM of square test graph



Authors' compilation.

To detect instability, the CUSUM test uses the cumulative sum of recursive residuals. The test can be enhanced by plotting the cumulative sum and the 5% critical lines. If the cumulative sum goes beyond the area among the two critical lines, the test can identify volatility. Our projected economic growth model is stable because the CUSUM test parameters fall within the 5% level of significance critical lines for the sampled period. The consistency of coefficients in a multiple linear regression model can be evaluated using the CUSUM of square test. Stability can be demonstrated if the cumulative sum is within the area among the two critical lines. Throughout the sampled period, the CUSUM of square test parameter remains within the 5% level of significance critical lines, which confirms that our proposed economic growth model is constant.

5. CONCLUSION AND RECOMMENDATION

The study investigated how inflation, unemployment, and business confidence impact the trajectory of the country's economy. The autoregressive distributed lag model bounds testing method was employed to establish the long-term association among economic growth, inflation, unemployment, and business confidence. To evaluate the dynamics among the macroeconomic variables, both short- and long-term coefficient tests should be carried out. Business confidence, in the long-term was found to positively influence economic growth but was statistically insignificant. Unemployment also positively affected economic growth at a lower rate. While inflation rate in the long-term negatively affected South Africa's economic growth. The findings of the study further indicated that business confidence Granger-cause unemployment. Shocks to business confidence have a negative impact on unemployment. Business confidence Granger-cause economic productivity, which leads to economic growth. Furthermore, that business confidence and unemployment Granger-cause inflation. These results have positive implications for a developing country like South Africa. Improving the employment rate and maintaining a stable inflation rate can result in better living conditions for people in the country, particularly if they are involved in business activities. Encouraging more openness and adopting macroeconomic policies to promote sustainable economic growth and controlling unemployment are recommended for the South African government.

REFERENCES

- Ajie, H.A., Ani, E.C., & Ameh, O.E., (2017). An examination of the impact of unemployment and inflation on the Nigerian economy: A bounds testing approach. *Journal of Public Policy and Administration*, 1(1), 22.
- Aminu, U., & Anono, A.Z., (2012). Effect of inflation on the growth and development of the Nigerian economy (an empirical analysis). *International Journal of Business and Social Science*, 3(10) [Special Issue- May 2012].
- Anning, L., Tuama, A.S., & Darko, S., (2017). Inflation, unemployment and economic growth: evidence from the VAR model approach for the economy of Iraq. *International Journal of Developing and Emerging Economies*, 5(1), 26-39.
- Aworinde, O.B., (2013). Budget deficits and economic performance (Doctoral dissertation, University of Bath).
- Belloumi, M., (2014). The relationship between trade, FDI and economic growth in Tunisia: an application of the autoregressive distributed lag model. *Economic Systems*, 38(2), 269-287.
- Bittencourt, M., (2012). Inflation and economic growth in Latin America: Some panel time-series evidence. *Economic Modelling*, 29(2), 333-340.
- Box, G.E., Jenkins, G.M., Reinsel, G.C., & Ljung, G.M., (2015). *Time series analysis: Forecasting and control*. John Wiley & Sons.
- Burger, P., & Calitz, E., (2021). COVID19, economic growth and South African Fiscal Policy. *South African Journal of Economics*, 89(1), pp.3-24.

-
- Chandra, R., (2022). Paul Romer and Modern Endogenous Growth Theory. In *Endogenous growth in historical perspective* (pp. 251-281). Palgrave Macmillan, Cham.
- Granger, C.W., (1981). Some properties of time series data and their use in econometric model specification. *Journal of Econometrics*, 16(1), 121-130.
- Gujarati, D.N., & Porter, D.C., (2009). *Basic econometrics*. McGraw-Hill, New York.
- Hassan, O.M., (2015). The impact of the growth rate of the gross domestic product (GDP) on poverty reduction in Nigeria. *International Journal of Business Administration*, 6(5), 90.
- Jarociński, M., & Maćkowiak, B., (2017). Granger causal priority and choice of variables in vector auto regressions. *Review of Economics and Statistics*, 99(2), 319-329.
- Kabundi, A., Schaling, E., & Some, M., (2019). Estimating a Phillips curve for South Africa: A bounded random-walk approach. *58th issue (June 2019) of the International Journal of Central Banking*.
- Kose, A., (2022). Stagflation risk rise amid sharp slowdown in growth. <https://www.worldbank.org/en/news/press-release/2022/06/07/stagflation-risk-rises-amid-sharp-slowdown-in-growth-energy-markets>.
- Kremer, S., Bick, A., & Nautz, D., (2013). Inflation and growth: new evidence from a dynamic panel threshold analysis. *Empirical Economics*, 44(2), 861-878.
- Lal, I.S., Muhammad, M., Jalil, & Hussain, A. (2010). Test of Okun's law in some Asian countries: Co-integration approach. *European Journal of Scientific Research*, 40, 73-80.
- Lean, H.H & Tan, B.W., (2011). Linkages between foreign direct investment, domestic investment, and economic growth in Malaysia. *Journal of Economic Cooperation and Development*, 32(4), 75-96.
- Madito, O. & Khumalo, J., (2014). Economic growth-unemployment nexus in South Africa: VECM approach. *Mediterranean Journal of Social Sciences*, 5(20), 79-79.
- Menegaki, A.N., (2019). The ARDL method in the energy-growth nexus field; best implementation strategies. *Economies*, 7(4), 105.
- Meyer, D.F., (2017). An analysis of the short and long-run effects of economic growth on employment in South Africa. *International Journal of Economics and Finance Studies*, 9(1), 177-193.
- Meyer, D.F., Masehla, T.M., & Kot, S., (2017). The relationship between economic growth and economic development: A regional assessment in South Africa. *Journal of Advanced Res. L. & Econ.*, 8, 1377.
- Mosikari, T.J., (2013). The effect of unemployment rate on gross domestic product: Case of South Africa. *Mediterranean Journal of Social Sciences*, 4(6), 429.
- Mutyaba, F., (2013). *Determinants of household savings and the effects of household saving on the stock market in South Africa*. Johannesburg: University of Witwatersrand.
-

-
- Ncanywa, T., & Letsoalo, T.E. (2019). Which among twin deficits hypothesis, twin divergence, and Ricardian's equivalence hold in a developing country? *Journal of Public Affairs*, 19(2), e1904.
- Nell, K.S., (2018). Re-examining the role of structural change and nonlinearities in a Phillips Curve Model for South Africa. *South African Journal of Economics*, 86(2), pp.173-196.
- Nkoro, E., & Uko, A.K., (2016). Autoregressive Distributed Lag (ARDL) cointegration technique: application and interpretation. *Journal of Statistical and Econometric Methods*, 5(4), 63-91.
- Odhiambo N.M., (2012). Inflation dynamics and economic growth in Tanzania: A multivariate time series model. *Journal of Applied Business Research (JABR)*, 28(3), 317–324.
- OECD (Organisation for Economic Cooperation and Development). (2017).
- Okun, A. (1962). Potential GNP: Its measurement and significance. In *American Statistical Association, Proceedings of the Business and Economic Statistics Section*, 98-104. Economic Surveys: South Africa. Paris: OECD Publishing.
- Omri, A., & Kahouli, B., (2014). The nexus between foreign investment, domestic capital and economic growth: Empirical evidence from the MENA region. *Research in Economics*, 68(3), 257-
- Pesaran, M.H., & Shin, Y., (1995). *An autoregressive distributed lag modelling approach to cointegration analysis*.
- Pesaran, M. H., Shin, Y., & Smith, R. J., (2001). Bounds testing approaches to the analysis of level relationship. *Journal of Applied Econometrics*, 16(3), pp.289–326.
- Phiri, A., (2014). *Re-evaluating Okun's law in South Africa: A nonlinear co-integration approach*.
- Porras-Arena, M.S., & Martín-Román, Á.L., (2019). Self-employment and the Okun's law. *Economic Modelling*, 77, 253-265.
- Prettner, K., (2013). Population aging and endogenous economic growth. *Journal of Population Economics*, 26(2), 811-834.
- Rafindadi, A.S., (2012) Macroeconomic policy, output, and unemployment dynamics in Nigeria: Is there evidence of jobless growth? *Paper presented at the 53rd Annual Conference of the Nigerian Economic Society on Youth Employment and Poverty Reduction in Nigeria*.
- Schilirò, D., (2019). The growth conundrum: Paul Romer's endogenous growth.
- South African Reserve Bank (SARB). <http://www.resbank.co.za/Research/Rates.aspx>.
- Sum, V., (2012). Unemployment, consumer confidence, business confidence, inflation and monetary policy. *Inflation and Monetary Policy (September 14, 2012)*.
- Sumner, S., (2012). The case for nominal GDP targeting. Mercatus Research. [Online] Available at: <https://www.mercatus.org/publication/case-nominal-gdp-targeting>.
- Troster, V., (2018). Testing for Granger-causality in quantiles. *Econometric Reviews*, 37(8), 850-866.
-

Tung, L.T., & Thanh, P.T., (2015). Threshold in the relationship between inflation and economic growth: Empirical evidence in Vietnam. *Asian Social Science*, 11(10), 105.

van der Schyff, T., Meyer, D. & Ferreira, L., (2019). Analysis of the impact of tourism sector as a viable response to South Africa's growth and development challenges.

World Bank., (2018). Global Economic Prospects: Sub-Saharan Africa. Washington, D.C.: World Bank.

Yusri, K.A., (2021). The effect of economic growth, inflation, and business confidence index on unemployment in ASEAN-5. *Journal Pendelikon Economy, JPEPA*, 2(2), 133-143.

SSIRC 2023-161**THE *MODUS OPERANDI* OF HOUSE ROBBERY AND SUBSEQUENT RAPE: PERSPECTIVES OF INCARCERATED OFFENDERS AT THE CORRECTIONAL CENTRES IN SOUTH AFRICA****K. Phalane**

University of Limpopo, South Africa

ABSTRACT

The commission of different crimes, including house robbery and rape, have specific method of executions to increase their likelihood of success. Therefore, this study explores the *Modus Operandi (MO)* employed by potential perpetrators of house robbery and subsequent rape, by gathering perceptions of incarcerated offenders. Put succinctly, house robbery is an unlawful entrance into a household with the intention to commit robbery while the house occupants are present. It involves careful planning of the routine activities of the victims; hence, it is committed in their presence. Additionally, rape committed in the context of house robbery, can be explained as an opportunity used by an offender to victimise a powerless woman or women, where there is more than one woman in a house targeted for robbery. A qualitative research approach was deployed, guided by an exploratory research design, with Fifteen (15) offenders from the Two (02) correctional centres were purposefully sampled. They were all subjected to the semi-structured face-to-face interviews for data collections. The inductive Thematic Content Analysis (TCA) was employed for data analysis.

The research findings highlighted the *MO* employed by the offenders during the commission of house robbery and subsequent rape. This includes the selection of wealthy and marginalised households, the use of forced or unforced methods of entry, the use of firearms, and lastly, substance use. It is therefore recommended and concluded that the opportunistic circumstances relating to the commission of these crimes should be minimised, by closely focusing on upgrading security measures for the community and the Criminal Justice System (CJS). This may include technological advancement and improvements, as well as information exchange intelligence-led operations.

KEYWORDS: Incarcerated offenders; House robbery; *Modus Operandi*; Rape; South African Police Service.

1. INTRODUCTION AND PROBLEM EXPOSITION

The ‘house robbery’ is the term formulated by the South African Police Service (SAPS) to describe a robbery wherein the perpetrators overpower, detain and rob the residents housed in a targeted residence [House occupants in this regard] (Zinn 2010; and Zinn 2016). It can be further deduced that house robbery is either a planned or unplanned criminal activities. The potential perpetrators can either learn the routine activities of the victims to commit a robbery or seize an opportunity that would have presented itself for the commission.

In 2019/20, an estimated 169,000 house robberies occurred, affecting 139,000 households which accounted for 0.8% of all households in the country, Statistics South Africa [Stats SA] (2020). Additionally, 55% of households in South Africa were reported to be robbed, while the majority of these house robberies are accomplished by aggravating circumstances, such as the use of knives or firearms, as well as physical and sexual victimisations, Stats SA (2020). About Three (03) in every four house robberies, 77% were committed with the firearms. Access to the premises can be in two forms, either by force or the victims could unknowingly allow the perpetrators into the house (Zinn 2016; and Alwinco 2015). The households displaying wealth as spotted by the perpetrators through exterior surveillance, are mostly targeted to make the crime rewarding (Van Raalte 2013; and Chowles 2016). Moreover, international authors such as Nee and Meenaghan (2006); as well as Nee and Taylor (1988), support that seasoned residential burglars consider assets in their cost-benefit analysis, such as the exterior decoration of a home, landscaping, Car(s) parked in the driveway, and furniture that can be seen through the windows. Similarly, the influence of drugs or alcohol, and any additional factors may influence the weighting of costs and benefits and reduce rationality.

Zinn (2010) argues that the household's information is obtained from observation or current and former employees, such as domestic workers, gardeners, or security guards. Consequently, for the successful completion of these crimes, the victims are usually subjected to different kinds of violence ranging from physical abuse, rape, and murder (Zinn, 2010). Economic gain is one of the contributors to house robberies, as employed perpetrators participate in robberies to obtain quick cash. This analysis can be attributed to the Strain Theory, which states that people commit crimes because of the limited legitimate resources within societies (Van der Westhuizen, 2011).

Moreover, Section 3 of the Criminal Law (Sexual Offences and Related Matters) Amendment (No. 32 of 2007), supported by the Criminal Law (Sexual Offences and Related Matters) Amendment (No. 13 of 2021) defines 'rape' as sexual intercourse with a woman without her permission, believing that a woman does not consent to sexual intercourse or recklessly not caring whether the woman consents. It applies to incidences where the perpetrator penetrates the victim's vagina or anus with a portion of the body other than the penis or an organ manipulated by the perpetrator.

Illustratively, Salfati and Taylor (2006) show that there is a number of functions that rape takes, which range from rape committed as a punishment method, rape as a means of sexually violating women, rape as a bonus act that is committed during the commission of another crime such as burglary or robbery, to rape as a recreational activity that is committed for the sake of the perpetrators' excitement, pleasure and adventure. Rebocho and Gonçalves (2012) add that rapists can be manipulative, opportunistic and coercive in nature. Darke (1990), Jewkes *et al.* (2010), Mann and Hollin (2010), adopt a far stronger position and declared that the ability to conquer and humiliate the victims seems to play a role in a rapist's inspiration. Therefore, it was imperative to conduct this study to explore the *MO* employed by the perpetrators of house robbery and subsequent rape. The findings from this paper may be used as a source of crime intelligence for the SAPS, community policing and for the basis for future research, robust engagements, and contestations on this topic.

2. PRELIMINARY LITERATURE REVIEW

2.1 The *Modus Operandi* of house robbery and subsequent rape

Zinn (2010) highlights that ‘house robbery’ perpetrators on average, precisely each perpetrator, admitted to committing 103 crimes over seven years before their first conviction. The common characteristic of house robbers includes the willingness to use a lethal weapon against their victims. The perpetrators’ actions are often determined by split-second decisions because of the urgency of the situation requiring immediate intervention or because of automaticity, a concept that explains rapid decision-making in the face of given external stimuli, learned by experience (Nee & Meenaghan 2006). Potential robbers usually spend between 30 minutes and four hours inside the targeted houses, which gives them more time to use violence to get valuables and to commit more crimes, such as murder and rape (Zinn, 2017). Violence and torture are usually targeted at females and children to scare the male guardian to provide the required information. In some instances, a woman may be raped in front of her man. The *MO* of house robbery and subsequent rape is further discussed in relation to the following concepts:

2.1.1 Exterior surveillance

To this course, Cromwell, Olson and Avary (1991) develop a 03-step decision-making method used by burglars for their risk analysis of a successful residential burglary. The first is surveillance, in which the offender examines the evidence of the presence of capable guardians (Lynch & Cantor 1992). This is supported by a study conducted by Zinn (2010) where 29 offenders (97% of the respondents) spent time waiting at a place of the incident before the house robbery to keep surveillance of the targeted house. The surveillance ranges from one to longer than 10 hours.

2.1.2 The nature of home occupancy

The second assessment employed by the burglar of the targeted home is the occupancy, to detect the presence of residents and competent guardians. Many burglars report that at that moment, they will never enter an occupied home (Cromwell, Olson & Avary 1991). Thirdly, by measuring the ease of entry, the robbers consider the accessibility of the targeted residence. Regardless of the amount of effort or ability required (I.e., Presence or lack of locks, dogs, and security systems), the robbers search for residences that are easy to break into (Cromwell *et al.* 1991). Summarily, the residences that have fewer security features and lack of proper guardianship are more likely to be broken into due to easier accessibility. De Wet, Potgieter and Labuschagne (2010) identify the variables that show the vulnerability of a potential victim to the perpetrator such as being a woman, the victim’s age range, relying on public transport and the need to get employment.

2.1.3 Substance use

An additional *MO* includes the use of substances during the commission of house robbery. Indermaur (1996) points out that about seventy percent (70%) of offenders were intoxicated (I.e. With drugs and alcohol, amongst others) or hanging out (I.e. Experiencing withdrawal effects) when committing violent property crimes. Table 1 below highlights the views of Indermaur (1996) and reveals that approximately 98 offenders were under the influence of alcohol and drugs during the commission of crimes. This ranges from alcohol, amphetamines, cannabis and heroin. These

findings concur with this study conducted by Zinn (2010), where alcohol intake by the offenders was found to facilitate the crime of house robbery.

Table 1: Substances intake

| Type of intoxication | Number of offenders |
|------------------------------|---------------------|
| No drugs or alcohol | 25 |
| Alcohol intake but not drunk | 12 |
| Hanging out/ looping | 7 |
| Alcohol intake and drunk | 14 |
| Cannabis alone | 4 |
| Alcohol intake and cannabis | 13 |
| Amphetamines alone | 17 |
| Amphetamines and other drugs | 11 |
| Heroin | 7 |
| Other drugs combination | 13 |
| Total | 123 |

Source: Indermaur (1996)

2.2 The *Modus Operandi* elements and pointers

Pena (2000) mentions that to clearly understand the *MO* of burglary at residential premises, the following elements should be addressed by the police and Law Enforcement Agencies (LEAs) investigators:

- **Entry point:** Front, side or rear of the house, door, window, roof; first, second floor or another floor.
- **Means of Attack:** Tools (I.e., Screwdriver, crowbar, key, lock pick, ladder, ropes, brace-and-bit, chisel, glass cutter). In such instance, one may ask the following pertinent questions: *Was an explosive used in a robbery at secured residential premises, was a burning torch, combination and lock punched out, box torn open with a bar used, or was the combination manipulated?*
- **Date, time, and day of the week of attacked property.**
- **Object of attack:** Anything that was available or a selection of items.
- **Trademark:** Assaulted victim, nuisance (I.e., Urinating, defecating, cutting telephone wires, leaving obscene or other notes, poisoning pets), posing as a peddler or disabled person, looking for work, moving van, truck, or other vehicle utilised. Therefore, the hanging questions which may be asked could be *‘Is the burglar a ransacker who leaves a mess, such as open drawers and doors with property strewn about, or is he/ she tidy?’ ‘Is there proof that the burglar helped himself to food or drink, or that he was familiar with the premises?’*

'Were there any discarded matches or cigarette butts?' In addition, the *MO* employed by the perpetrators is very organised and strategic in carrying out criminal activities. This rationality can be attributed to the classical school of thought where there is a degree of planning involved and the implementation of strategic measures to avoid apprehension (Van der Westhuizen 2011; Siegel 2004; and Curran & Renzetti 1994).

2.3 Possible interventions to address the *Modus Operandi* of house robbery and subsequent rape.

2.3.1 Target hardening and reduction of opportunities

Crime prevention and control are complex phenomena and can only be maintained if there is a partnership between the LEAs and community members. Partial reference can be made to traditional policing to understand how target hardening can be maintained. Target hardening relates to control and security to limit and restrict potential criminals to commit crimes and reduce possible opportunistic circumstances. Preferred Closed-Circuit Television (CCTV), alarm systems, electric fences, and domestic animals such as dogs can be used to alert and detect the home dwellers when there is an intruder. The vulnerability of a victim is empowered by easier entry of the offender into the targeted house. The alarm systems within the household should always be designed to detect the perpetrators whilst trying to bypass the outside gate/wall.

Additionally, the placement of the responsibility of crime prevention at the back of the citizens is not a new phenomenon. It was practised during traditional policing where the community becomes the 'ears' and 'eyes' of the LEAs. Therefore, the SAPS members and private armed responses security companies can work interchangeably with the neighbourhood watch for visibility across the streets and suspicious, unusual criminal activities can be timely reported. The use of 'whistleblowing' can aid to alert fellow community members whenever there is a crime or suspicion like the 'hue' and 'cry' during the times of traditional policing. The regular meetings and workshops held by the SAPS about community safety can capacitate the home dwellers with the *MO* where these crimes are concerned. This can be useful in reporting suspicious criminal activities in alignment with the imparted knowledge.

2.3.2 Firearm control

The improved enforcement of laws and legislative framework/s governing ownership of firearms is imperative, to help develop strategies of controlling firearms proliferation. The registered firearms should be strictly emphasised to easily trace ownership. The weapons used in the commission of these crimes should be immediately located. This can improve compliance with the Firearm Control Act (No. 60 of 2000).

2.3.3 Liquor regulations

The regulation of liquor is of utmost importance given the negative consequential nature of binge drinking. Therefore, there is a dire need for the liquor license holders to comply with the licensing conditions. The licensing conditions in this section were demarcated to the condition of serving alcohol to already intoxicated patrons, which is a punishable offence. Moreover, the majority of

the participants were under the influence of alcohol during the commission of a house robbery and subsequent rape. The researcher opines that the use of breathalysers (Alcohol testers) at the liquor outlets should be mandatory as a condition that is handed out to the license holders by the Liquor Board. Overall, the penalties and punishments in terms of non-compliance to the licensing conditions should be swift and have a financial impact on the perpetrator. For instance, the Liquor Board should effectively impose both penalty and suspension or revocation of registration liquor certificates. This can improve compliance with the provincial Liquor Acts and the National Liquor Act (No. 59 of 2003).

Regarding the National Liquor Act, 2003, a study conducted by Manamela (2019) identifies several shortcomings in the implementation of this Act at national and provincial levels. Therefore, various models in the field of Human Resource Management (HRM) can assist in creating an effective strategy to achieve the National Liquor Authority (NLA), the Provincial Liquor Board (PLB) and SAPS objectives. A gap was also identified between this Act relating to agencies' strategic focus, a lack of capacity, and poor communication of the liquor acts to ensure uniform standards for the implementation of the Act. Limpopo Province currently follows the Liquor Act (No. 21 of 1989) due to its inability to follow the National Liquor Act, 2003. However, it will implement its own Act in April 2023.

3. RESEARCH DESIGN AND METHODOLOGY

The exploratory research design guided this study, to aid to the applied qualitative research approach. The exploratory research objective is always conducted to research a problem that is not clearly defined, has been under-investigated, or is poorly understood. Therefore, the *MO* of house robbery and subsequent rape is often an under-researched phenomenon. The consulted literature dwells more on the *MO* for house robbery and rape on different occasions. This paper intertwined the two crimes to establish the utilised *MO*. The non-probability: Purposive sampling was adopted to select 15 offenders who committed house robbery and subsequent rape. This study was confined to the 02 South African correctional centres, situated in Limpopo Province (Thohoyandou Correctional Centre) and Gauteng Province (Kgosi Mampuru II Correctional Centre). This process typically entails selecting participants with adequate expertise and rich knowledge on the concept under research.

The Semi-structured face-to-face interviews were used for data collections, with ethical considerations respected at all costs, by ensuring that the consent forms are distributed prior commencing with this process. The participants were informed about the nature of the study and their ability to withdraw from the research at any time. Before the interviews began, offenders who agreed to participate were given consent forms to sign. The consent forms were labelled as participants' One-to-15, and no biographical information such as names, surnames, or residential addresses of the participants was required. Data collection was continuous, and the analysis was performed through the selection of Five [05] (1, 3, 4, 5 and 6, while neglecting phase No. 02) phases from the Six (06) steps of inductive TCA, namely: **1)** Familiarisation with data, **2)** Generating codes, **3)** Identifying themes, **4)** Reviewing themes, **5)** Defining themes, and **6)** Report writing / Article writing.

4. STUDY FINDINGS AND DISCUSSIONS

4.1 The identified *Modus Operandi* of house robbery and subsequent rape

4.1.1 Theme 1: Selections of households

In terms of the household's selection, it is confirmed that the wealthy and marginalised households with low-security measures are more likely to be targeted. The participants uttered that wealthy households are seen by the well-decorated exteriors, sophisticated landscaping, and expensive cars in the yard. The marginalised households are found in isolated areas such as in the farms and plots where there is a limited population. The offenders target these households with ease, given the geographical location (I.e., Outskirts of the community). Similarly, the households that have low-security features are selected, for easier access. The easier access also relates to the households that are owned by women resulting from the lack of masculine ability to overpower the offenders.

Nee and Meenaghan (2006) and Nee and Taylor (1988) agree in support that the narrative of targeting wealthy households and conclude that seasoned residential burglars consider assets in their cost-benefit analysis, such as the exterior decoration of a home, landscaping, car(s) parked on the driveway, and furniture that can be seen through windows. In addition, the findings from Zinn's (2017) proffer that relatively low-security features households and the victim's drunkenness were viewed as easy targets. The following verbatim expressions highlight the participants' household selections:

Participant 1 said that *"I selected that household because the occupant was a woman, and she would not be able to fight me and I wouldn't have a problem."*

Participant 4 highlighted that, *"during the day, we just walk around in the street looking for wealthy households and we may return around 12h00 Ante Meridiem (AM) or 01h00 AM to start with our robbery."*

Participant 5 stated that *"we just looked at the houses that were marginalised, at the outskirts of the main communities."*

Participant 11 revealed that *"the household was in the bushes, and it did not have a fence. Therefore, we arrived in the evening at the house and there were four of us. There was a woman sitting outside with her husband. That house was in a marginalised area, in the bushes and the houses were apart from one another, even if they could scream, no one would hear them. It was easier to get there, and the victims looked like people with money."*

Participant 14 confirmed that *"like when you commit a house robbery, the wealthy households can be seen by looking at the yard and the cars in the driveway."*

4.1.2 Theme 2: Methods and tools of entry

In most incidences, access to the premises can be in two forms either by force or the victims would unknowingly allow the perpetrators into the house (Alwinco, 2015). Deasy, Badenhorst and Stumpher (2003) (in Van der Watt & Van Graan, 2013) state that about 10% of the incidences of rape occurred after a forced entry into the premises of the victim by the perpetrator, whereas in

another incident, the perpetrator deceived the victim and was allowed entry into the residence (I.e., Human key). Therefore, there are different kinds of methods of entry that the offenders of house robbery and subsequent rape use to get into the targeted house.

Additionally, the favourable methods of entry include the use of a human key such as finding the victims outside the house and coercing them into the house. Secondly, it is the offender's innocent physical appearance that may motivate the victims to willingly open the door. However, in most circumstances, there is forced entry where certain tools are used to break into the house. The verbatim narratives below explain the employed methods of entry and the utilised tools such as jackhammers, screwdrivers, steel cutters, steel rods and wrenches.

Participant 1 shared that *“the method I used for entry is a jackhammer.”*

Participant 4 stated that *“we always have something to break inside such as a steel rod because it is not easy to get inside a house, especially if the occupants are available. We use very sharp metals to break inside. Or alternatively, if there is a key left in the keyhole at the door, and there is a space at the bottom of the door, I just push the key from the outside and as soon as the key falls down, I pull it through underneath the door from the outside and use it to open from the outside. In addition, the sliding doors are easier targets as there is no installation of security gates around them.”*

Participant 6 confirmed that *“we robbed about three houses on the same day, all the doors were closed. I was the one who was knocking. Remember, it was a suburb where nobody trusted a stranger. However, that day, I just knocked, the person (I.e., Victim) inside the house just asked ‘Who is that?’ I told them that I am Mr X. The victim did not ask what I wanted but opened the curtain to see me through the window and trusted my physical appearance. So, I was the one who was opening for all my co-accused to get inside the house.”*

Participant 9 stated that *“we used a screwdriver to open a sliding door and it wasn't that difficult.”*

Participant 11 mentioned that *“there was a woman sitting with her husband outside the house. To approach the house, we walked among the trees so that they could not see us and when we were nearby, we ran as fast as we could towards them. We then coerced the victims into the house.”*

Participant 14 showcased that *“we jumped over the electric fence and got inside the yard as there was no electricity. We used a knife to remove the putty (I.e., Holds the glass with the window frame) and put the glass down. That is how we managed to enter the house.”*

Participant 15 submitted that *‘we used a wrench as it does not make noise when it is used to break into the house.’*

In support of the indicated verbatim assertions, Pena's (2000) study supports the notion that the usage of tools in residential burglary include these tools; ‘screwdriver, crowbar, key, lock pick, ladder, ropes, brace-and-bit, chisel and glass cutter.’ These methods and tools have all been

effective and successful in committing these crimes; hence, the offenders managed to get into the houses without any hassle. In most incidences, the victims would only realise a break-in incident when confronted by the offenders inside the house.

4.1.3 Theme 3: The use of weapons

The use of a weapon, usually a firearm, plays a crucial role in the commission of house robbery and subsequent rape. Most of the participants mentioned that they would never commit these crimes without a firearm whereas some uttered that they used the kitchen knives found inside the house. Salfati and Taylor (2006) theorise that weapon use reflects a predominantly functional or instrumental behavioural aspect of the offence demonstrating the offender's need for control and is characteristic of a planned offence. On the other hand, Ressler, Burgess and Douglas (1988) support that 'a so-called organised offender is more likely use a weapon to control and facilitate the crime'. The offenders carry a weapon as a way of controlling the victims and for compliance. Therefore, a firearm is an essential instrument for a successful commission of a crime. In addition, robbers who employ weapons are more likely to hurt their victims, implying a non-strategic use of violence (Felson & Krohn 1990). Jewkes (2012) further maintains that firearms facilitate the commission of rape.

The following verbatim narrations of the participants confirm the use of weapons during the commission of these crimes:

Participant 1 uttered that *'even though I went into the house unarmed, I used a kitchen knife that was found inside the house.'*

Participant 2 added that *'I had a knife when committing that crime'.*

Participant 4 confirmed that *'I carried firearms and knives to scare the victims.'*

Participant 6 highlighted that *"during the commission of these crimes, we become heartless, it seems like when you have a firearm in your hand, you just do what you want to do and nothing will stop you."*

Participant 7 stated that *"when the people inside the house realised that there was a robbery, a lady went to check and that was when we met and used a firearm to threaten her."*

Participant 8, 11 and 13, 14 and 15 collaboratively agreed that *"if you take out a firearm, either small or big, the victims will submit to you, co-operate and won't do anything."*

Zinn (2010) supports these verbatim expressions by emphasising that the willingness to use a lethal weapon against the victims is one of the house robbers' characteristics. Therefore, the use of weapons is crucial to facilitate the successful commission of these crimes. For instance, firearms and knives are commonly used to scare the victims into submission. A firearm gives power and impunity to the offenders to commit the crimes. A firearm is a powerful weapon in that when in the perpetrator's possession, the victims would comply with the orders of the offender. Therefore, the victims are likely to confess all the belongings in the house such as where the money is kept

avoiding victimisation by the offender. In this paper, the offenders admitted to using firearms and knives to scare the victims into submission and compliance.

4.1.4 Theme 4: Substance use

The use of drugs or alcohol can make a person to momentarily lose control over urges in many incidences. Alcohol eliminates moral constraints and subsequently, the vulnerable victims are attacked when the desire becomes unbearable and irresistible (Zinn 2017). It may be that some house robbers use alcohol to ‘give them courage’ or to ‘facilitate’ the rape. The analysed data support the literature as the use of alcohol played a vital role in the commission of these crimes. Most of the offenders mentioned that they were under the influence of alcohol and *Marijuana* (I.e., Cannabis/Dagga) when committing house robbery and subsequent rape.

Participant 1 said that *“I had alcohol intake and smoked marijuana’ on that day. I went in there to steal money. I was drunk and found a woman and ended up committing rape.”*

Participant 2 revealed that *“I was influenced by alcohol and Cannabis (Marijuana) and I shouldn’t have raped her. I do not have such a mentality but immediately when I take substances, everything changes, I become irrational.”*

Participant 3 stated that *“yes... I consumed alcohol before committing those crimes. There is a huge difference between committing these crimes while intoxicated and sober. When I commit a crime under the influence of alcohol, I have the power to do bad things, and I will never commit those crimes if I am sober. After the consumption of alcohol, I eventually agreed with my friend to commit these crimes although I initially refused.”*

Participant 4 uttered that *“I used to take drugs in Johannesburg (I.e. Gauteng Province) and when I came to my home town in Limpopo Province, I realised that there are limited drugs in the streets and as such, I replaced the drugs with alcohol because the effects are the same to me.”*

Lindegaard, Bernasco and Jacques (2015) mention offenders’ violence during robbery events and highlight that forty-two (42) of the offenders use three joints of Cannabis (*Marijuana*) per day whilst about 44 used alcohols weekly during the commission of the crime. The use of alcohol and Cannabis plays a crucial role in facilitating the commission of these crimes and makes a person to shortly lose control over urges in many circumstances. Moreover, the use of alcohol has been shown to cloud the judgement of the offenders (Miczek *et al.* 1993; Grisso *et al.* 1999). It was also found by Krebs *et al.* (2009) that about 81% of men who have committed rape had been drinking prior to the crime.

5. CONCLUSION

It is concluded and recommended that the *MO* used by the perpetrators of house robbery and subsequent rape has been discussed in this paper. Alcohol impairs the normal functioning/ thinking of an individual and inhibits necessary thinking capabilities. Subsequently, most of the participants engage in these crimes because of intoxication. Therefore, strict and harsh penalties should be issued for those contravening the provisions of the National Liquor Act, 2003. The Liquor Board

should revoke liquor licences of the license holders who contravene the liquor laws repeatedly. Similarly, the legalisation of Cannabis in South Africa for private use has detrimental effects in terms of crime commission because of its availability to the offenders.

It is of utmost importance for the thorough control of firearms as the main weapons used during house robbery and subsequent rape. The registrations of firearms can make it easier for them to be traceable, especially in circumstances wherein the crime was committed. The ownership of these firearms can thus be established and that can speed up the investigation processes of these crimes. House robbery and subsequent rape are caused by the presence of an opportunity; therefore, it is important to implement strict security measures to respond to these crimes.

Importantly, the SAPS can work together with the private security sector to patrol residential premises to reduce the opportunities for these crimes to occur. Visible policing has proven to be effective and proactive in terms of crime prevention. For instance, during the period of hard lockdown (I.e., Level 5) in South Africa due to the Coronavirus Disease-2019 (COVID-19) pandemic, some crime statistics decreased because the SAPS and the South African National Defence Force (SANDF) were patrolling the streets daily. Therefore, there were less suitable opportunistic circumstances for the commission of crimes.

REFERENCES

- Alwinco, (2015). *Taking security to a new level in 2015 & into the future*. Burglary & armed robbery. Retrieved from: <http://www.camprosa.co.za/documents/Burglary>.
- Chowles, J. (2016). *A profile of rape during residential robberies in Gauteng, South Africa between 2002 and 2012*. Unpublished Masters in Community-based Counselling Psychology. Johannesburg: University of the Witwatersrand.
- Cromwell, PF, Olson, JN & Avary, DAW. (1991). *Breaking and entering: An ethnographic analysis of burglary*. Newbury Park, California: Sage.
- Curran, DJ & Renzetti, CM. (1994). *Theories of crime*. Boston: Allyn and Bacon.
- Darke, JL. (1990). Sexual aggression: Achieving power through humiliation, in: *Handbook of sexual assault: Issues, theories and treatment of the offender*. Edited by Marshall, W, Laws, DR & Barbaree, HE. New York: Plenum Press. Pp 55-72.
- De Wet, J, Potgieter, C & Labuschagne, GN. (2010). An explorative study of serial rape and victimisation risk in South Africa. *Acta Criminologica, Southern African Journal of Criminology* 23(1): 35-49.
- Deasy, G, Badenhorst, A & Strumpher, L. (2003). *Rape analysis: Port Elizabeth area, April 2003 to June 2003*. Port Elizabeth: South African Police Service Crime Information Analysis Centre.
- Felson, RB & Krohn, M. (1990). Motives for rape. *Journal of Research in Crime and Delinquency* 27(3): 222–242.

-
- Grisso, JA, Schwartz, DF, Hirschinger, M, Sammel, M, Brensinger, C, Santanna, J & Teeple, L. (1999). Violent injuries among women in an urban area. *New England Journal of Medicine* 341(25): 1899-1905.
- Indermaur, D. (1996). *Reducing the opportunities for violence in robbery and property crime: The perspectives of offenders and victims*. Australia: University of Western Australia.
- Jewkes, R, Sikweyiya, Y, Morrell, R & Dunkle, K. (2010). Why, when and how men rape: Understanding rape perpetuation in South Africa. *South African Crime Quarterly* 34: 23–31.
- Jewkes, R. (2012). Autoethnography and emotion as intellectual resources doing prison research differently. *Qualitative Inquiry* 18(1): 63-67.
- Krebs, CP, Lindquist, CH, Warner, TD, Fisher, BS & Martin, SL. (2009). The differential risk factors of physically forced and alcohol or other drug enabled sexual assault among university women. *Violence and Victims*, 24(3): 302-321.
- Lindegaard, MR., Bernasco, W & Jacques, S. (2015), Consequences of expected and observed victim resistance for offender violence during robbery events. *Journal of Research in Crime and Delinquency* 52(1), 32-61.
- Lynch, JP & Cantor, D. (1992). Ecological and behavioural influences on property victimisation at home: Implications for opportunity theory. *Journal of Research in Crime and Delinquency*, 29, 335-362.
- Manamela, MS. (2019). *A strategic focus on the implementation of the National Liquor Act 59 of 2003 in South Africa*. Unpublished Doctor of Philosophy: Police Practice. Muckleneuk: University of South Africa.
- Mann, R & Hollin, C. (2010). Self-reported schemas in sexual offenders. *Journal of Forensic Psychiatry and Psychology* 21(6), 834-851.
- Miczek, KA, Weets, EM & DeBold, JF. (1993). Alcohol, benzodiazepine-GABAA receptor complex and aggression: Ethological analysis of individual differences in rodents and primates. *Journal of Studies on Alcohol, Supplement* (11), 170-179.
- Nee, C & Meenaghan, A. (2006). Expert decision making in burglars. *British Journal of Criminology*, (46), 935-949.
- Nee, C & Taylor, M. (1988). Residential burglary in the Republic of Ireland: A situational perspective. *Howard Journal of Criminal Justice* (27), 105-116.
- Pena, MS. (2000). *Practical criminal investigation*. New York: Delmar Cengage Learning.
- Rebocho, M & Gonçalves, R. (2012). Sexual predators and prey: A comparative study of the hunting behaviour of rapists and child Molesters. *Journal of Interpersonal Violence*, 27, 2770-2789.
- Republic of South Africa. (2007). The Criminal Law (Sexual Offences and Related Matters) Amendment Act [No. 32 of 2007] (Sexual Offences Amendment. Pretoria: Government Printers.
- Republic of South Africa. Firearms Control Act (Act No. 60 of 2000). Pretoria: Government Printers.
-

Republic of South Africa. 2003. National Liquor Act (No. 59 of 2003). Pretoria: Government Printers.

Ressler, R, Burgess, A & Douglas, J. (1988). *Sexual homicide: A motivational model*. New York: The Free Press.

Salfati, CG & Taylor, PJ. (2006). Differentiating sexual violence: A comparison of sexual homicide and rape. *Journal of Psychology, Crime and Law* 12(2), 107-125.

Siegel, LJ. (2004). *Criminology theories, patterns and typologies*. Toronto: Thomson Wadsworth.

Statistics South Africa. (2020). *Crime statistics*. Available from: <https://www.statssa.gov.za/?p=13811> [Accessed: 2023/09/27].

Van der Westhuizen, M. (2011). Criminological theories, in: *A South African perspective on fundamental criminology*. Edited by C Bezuidenhout. Cape Town: Pearson.

Van Raalte, D. (2013). *Explaining residential robberies: A study into the characteristics of victims, residences and locations of residential robberies*. Unpublished master's Dissertation. University of Twente: Twente.

Zinn, R. (2010). *Incarcerated perpetrators of house robbery as a source of crime intelligence*. Unpublished Doctor of Literature and Philosophy Thesis. Brooklyn: University of South Africa.

Zinn, R. (2017). The policing of robbery with aggravating circumstances: Case studies of incarcerated offenders of home invasions, carjackings and cash-in-transit heists in South Africa. *Acta Criminologica: Southern African Journal of Criminology*, 30(2), 12-26.

SSIRC 2023-162**DEVELOPING ENTREPRENEURSHIP SKILLS AMONG UNIVERSITY STUDENTS THROUGH TEACHING AND LEARNING****E.F. Adanlawo**

North-West University, South Africa

N.Y. Nkomo

University of Zululand, South Africa

ABSTRACT

The vital role that entrepreneurship plays in reducing poverty and improving standards of living has been globally recognized. This has invariably led to the recent promotion of entrepreneurship, with an exceptional focus on university students' entrepreneurial activity and their capabilities to make a meaningful contribution to the economy. The study explored various ways in which university students' entrepreneurial skills can be developed through teaching and learning from the perspective of cognitive constructivist learning theory. A thorough review of the literature revealed that learning entrepreneurial skills plays a critical role in the overall success of businesses. More so, teaching and learning would help students acquire management skills, which include the skills to prepare business plans. Also, entrepreneurship skills acquired through education by means of teaching and learning would enable an entrepreneur to uncover opportunities that will prompt the discovery of new ideas. The study concludes that entrepreneurship as a learned phenomenon is an appropriate tool to use to develop university students into employers that will make a meaningful contribution to the economy. The study recommends that various teaching and learning techniques be introduced to simplify entrepreneurial learning and differentiate hypothetical information from experience acquired through practice.

KEYWORDS: Cognitive constructivist learning theory, Economic development, Entrepreneurship skills, Teaching and learning, University students,

INTRODUCTION

The vital role that entrepreneurship plays in reducing poverty and improving standards of living has been globally recognised (Adanlawo, Nkomo, and Vezi-Magigaba, 2023). This has invariably led to the recent promotion of entrepreneurship, with an exceptional focus on university students' entrepreneurial activity and their capabilities to make a meaningful contribution to the economy. Research findings have indicated that education positively affects the likelihood of trying to be an entrepreneur (Ismail et al., 2019; Aminu, 2014). Owing to high unemployment, a substandard level of poverty, and low economic growth in South Africa, entrepreneurship becomes an important solution to begin and develop small businesses. To accelerate the growth and development of the economy in South Africa, it is necessary for all stakeholders to concentrate effort on the development of students' entrepreneurs through entrepreneurship education via teaching and

learning in universities and other higher institutions, using it as an approach to tackle unemployment in the nation (de Waal and Maritz, 2022; Leonidou et al., 2020).

Through teaching and learning, skills and knowledge that are believed to be one of a handful of areas in which a nation can have a competitive advantage can be developed (de Waal and Maritz, 2022). Adanlawo and Chaka (2022) support this view by recommending that the significance of entrepreneurial education is derived from the significance of the businessperson throughout the economic framework. Several studies have highlighted entrepreneurship teaching and learning as one of the most important factors that could contribute to entrepreneurial activities in South Africa (Kanayo, 2021; Van Vuuren and Groenewald, 2007). Similarly, classroom teaching and learning play a basic role in developing entrepreneurial skills (Witbooi and Ukpere, 2011). Alvarez-Risco et al. (2021) aver that having entrepreneurial skills considerably expands the chance that an individual will own or manage a business. Kanayo (2021) asserts that a likely resolution for entrepreneurs is the introduction of teaching and learning of entrepreneurial skills in universities. Such programs would assist students in owning businesses and have a positive impact on the sustainability of their businesses.

Clark et al. (2021) asserts that teaching and learning skills alone are not enough; the authors recommend that emotional charge must also be present. For entrepreneurship students to successfully own and manage their businesses, a positive attitude and a sense of confidence are important for their intentions and actions. Students must be taught how to take risks, as the ability to take risks is an essential characteristic of being an entrepreneur (Adanlawo and Vezzi-Magigaba, 2022). It is believed that people with a strong sense of ability make a greater effort to master challenges. To be a successful entrepreneur, entrepreneurial self-efficacy is relevant, which is the "strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship" (Adanlawo, Magigaba, and Owolabi, 2021). This article aims at assessing the contribution of universities to the fostering of entrepreneurial ecosystems by examining entrepreneurship development in teaching and learning. To achieve this study's aim, the theoretical foundation for the study is discussed. Also, universities' roles in teaching entrepreneurship, entrepreneurship and the economy, entrepreneurship skills among university students, and teaching and learning to develop entrepreneurship skills are well discussed.

Theoretical Foundation

The cognitive constructivist learning theory is considered relevant to this study. According to Sailin and Mahmor (2018), the theory is concerned with meaningful learning. Meaningful learning in the sense that the students can acquire knowledge that will enable them to start and become successful entrepreneurs in society. According to Alzaanin (2020), the theory is a combination of cognitive and constructivist approaches. According to Reddy and Adanlawo (2018), the goal of cognitivist teaching strategies is to help students integrate new knowledge into their body of prior knowledge and empower them to adapt their existing conceptual framework to incorporate that knowledge. This indicates that entrepreneurship students will acquire new knowledge to build on their previous knowledge. Building on previously acquired knowledge in the sense that the student's new knowledge (information acquired) will be an added advantage.

While constructivism is considered an innovative approach that influences the method of teaching, constructivism creates strategies that enable students to gain knowledge (Reddy and Adanlawo, 2018; Juvova, 2015). For students to actively gain knowledge, teachers need to create a method by which the content of the study will be thought through. This method or strategy will simply change the content of the teaching for easy understanding by the students. Li and Guo (2015) aver that, in constructivism, the teacher serves as a facilitator rather than the only resource during the teaching and learning process. A constructivist approach's underlying premise is that learning involves creating knowledge rather than simply receiving it. Instead of repeating, it is about comprehending and applying (Sulistyowati, 2019). Constructivism's main takeaway is that students can build their own knowledge through active learning and interpret ideas in their own ways. This motive is very essential for entrepreneurship students whose' aim is to gain knowledge that will prepare them to start and successfully manage businesses.

Based on cognitive constructivist learning theory, students assume responsibility for actively constructing meaning through conversation with others and themselves (Mann and MacLeod, 2015). Understanding is a useful goal since it allows for the incorporation of the content into the student's existing body of knowledge. The main takeaway is that learning is a dynamic and ongoing process (Reddy and Adanlawo, 2018). For teaching and learning to be effective in developing students' entrepreneurial skills, it must continuously evaluate and adjust to unexpected changes in students' behaviour and thinking as teaching progresses. According to the theory, teachers have a duty to structure lessons so that students can link and make sense of concepts and facts. The objective is to integrate and inspire students to take a broad and critical view of society. This goal correlates with the aim of the study, which is to develop university students' entrepreneurial skills to make meaningful contributions to the economy and society at large.

Universities' Roles in Teaching Entrepreneurship

Universities are acknowledged as knowledge-intensive institutions and settings that support the growth of human capital, innovation, and entrepreneurship (Salles-Filho et al., 2022). Universities have the capacity to encourage business thinking and entrepreneurial culture when their contributions to advanced research, education, and knowledge networking are considered. Universities play a role in the development of business thinking as well as the general transfer of technology (Adanlawo and Chaka, 2022; Jessop, 2017). Universities participate actively in the entrepreneurial discovery process. Universities are the connecting institutions between all partners in an entrepreneurial ecosystem (Wang, 2021). These universities, according to Wang, are engaged in collaborations, networks, and other connections with public and private entities to support interaction, collaboration, and cooperation within the country's innovation system (Wang, 2021). Universities are not socially isolated; they work closely with business and government while maintaining their mostly independent status.

Universities should encourage entrepreneurship. Entrepreneurial universities, along with innovation clusters and knowledge transfer, are intimately tied to the idea of entrepreneurial ecosystems (Fuster et al., 2019). Universities that have created various systems for producing and disseminating information with the goal of advancing national development are referred to as

entrepreneurial universities (Foster, 2022). These universities deliver instruction and extracurricular activities to promote the growth of entrepreneurial behaviour. Collaboration with external stakeholders is a crucial resource for "entrepreneurial universities" since it offers crucial connections, knowledge, and entrepreneurial experience for entrepreneurship education.

Webb (2021); Foster (2022) avers that in universities, where knowledge and skills are taught in greater depth than at other levels of education, innovation can flourish. Additionally, programs and soft skills are combined with technical business training in university entrepreneurship education. Universities frequently serve as change agents that encourage human connection, knowledge transfer, and the development of trust amongst many stakeholders due to their closeness to other communities (Klofsten et al., 2019; Jessop, 2017). For students to work in an entrepreneurial manner, universities provide entrepreneurship education that cultivates and develops the attitudes, knowledge, and competences necessary (Fuster et al., 2017; Wang, 2021). They aid in the development of a business's culture and help students gain human abilities including teamwork, leadership, creativity, and the capacity to function under pressure (Jessop, 2017). The role of universities in building students into successful entrepreneurs who will make meaningful contributions to the economy is immeasurable.

Entrepreneurship and the Economy

The recent global economic recession has witnessed many of the world's largest companies continuing to engage in massive downsizing (Nkomo and Adanlawo, 2023). Conversely, small businesses continue to create more jobs. For instance, in the US, small businesses created 1,625,000 jobs (Martin, 2015). In sub-Saharan African countries, massive improvements have been recorded. In Zambia, 55 percent of the working population is involved in small businesses (Richardson *et al.*, 2004). Mozambique records 98.6% enterprises, which employ 46.9% of the nation's workforce (Sun et al., 2020). Similarly, in Tanzania, about 4 million people who are into small business contribute about 45% to the country's GDP (Anderson, 2017). With these statistics, it can be rightly said that small businesses have found a home in most African nations, primarily because they are easier to set up than big enterprises.

Nevertheless, the maximum potential of entrepreneurship is yet to be achieved simply because of the constraints it faces from the start-up stage to the survival stage. Unfortunately, these limitations have not received enough attention from university academics (Ferrerias-Garcia, Sales-Zaguirre, & Serradell-Lopez, 2021). The gap necessitated this study. Though South Africa as a nation is confronted with challenges of insufficient managerial abilities because of inadequate frameworks of instruction and skills training, to tap entrepreneurship potential to the fullest, Clark et al. (2021) advise the need for entrepreneurship skills development among university students through teaching and learning.

Entrepreneurship Skills among University Students

The importance of education has been emphasized since it can lay a good foundation for business (Martin, 2015). It is argued that learning entrepreneurial skills plays a critical role in the overall success of a business. Adanlawo and Magigaba (2022) describe entrepreneurship as a process in

which innovation plays a vital role. For an average entrepreneur to be innovative, he or she must possess some entrepreneurial skills, which can be achieved through education in tertiary institutions. Aminu (2014) emphasized teaching and learning as important factors in promoting entrepreneurship. Aminu (2014) is of the opinion that teaching and learning would help students (young entrepreneurs) acquire management skills, which include the skills to prepare business plans. Ferreras-Garcia, Sayoung les-Zaguirre, and Serradell-Lopez (2021) recommend the inclusion of financial assistance, mentoring, counseling, and networking in the entrepreneurship program.

Martin (2015) emphasizes technical skills, business management skills, and personal skills as being pertinent to supporting entrepreneurship success. Although the high cost of obtaining a good education remains a barrier, the advent of new technologies has changed the way entrepreneurs increasing their worth (Undiyaundeye & Otu, 2015). In a short while, entrepreneurial students can have access to valuable materials online, which also contributes immensely to building entrepreneurial skills. Research studies indicate that the effect of entrepreneurial skill remains a major component that sustains young entrepreneurs' success (Clark et al., 2021; Aminu, 2014).

Through education, an entrepreneurial and managerial mindset can be achieved. A managerial mindset, according to Alvarez-Risco et al. (2021), signifies a perspective and activity about the business and the prospects for predicting uncertainties. Through education, intended entrepreneurs will be fortified with substantial social, human, and financial capital, which will enable them to identify and access opportunities that will encourage innovation. The innovation will lead to small business success (Adanlawo & Magigaba, 2021). Sitharam and Hoque (2016) affirm that innovation is a process that begins with a thought, continues with the development of an invention, and leads to a new product or service presentation. However, innovation requires special skills and competencies, which are often lacking amongst young entrepreneurs (Witbooi & Ukpere, 2011).

Anderson (2017) identifies innovation, vision, independence, and educational background as some of the factors that stimulate university students to begin an enterprise. According to Anderson, university students' level of knowledge and external knowledge experience have a significant influence on their decision to pursue a career in entrepreneurship. Anderson believes that it is crucial to acquire the necessary skills to start a new business, as it increases the likelihood of adequately running it. A new skill guarantees access to relevant knowledge that is of utmost importance to the beginning and growth of small businesses. Knowledge acquired through education by means of teaching and learning in the university is crucial for business. The knowledge provides new information that can be applied to new business ideas and how to market goods and services. Anderson (2017) avows that education by means of teaching and learning is a way of consolidating knowledge and experience to begin and grow businesses.

Alvarez-Risco et al. (2021) identify prior knowledge, personal traits, and social networks as the three major factors that influence entrepreneurial prospect utilisation. According to Greblikaite, Sroka, and Gerulaitiene (2016), prior knowledge and learning roles in entrepreneurial opportunities have received consistent attention. As mentioned by the authors, prior knowledge

comes from different sources, such as training, experience, and advice from specialists. The source of this prior knowledge could effectively expand training acquired at university, providing proper entrepreneurial skills and abilities for intended young entrepreneurs. Through education (entrepreneurial skills), entrepreneurs will be conversant with customer demands for new products and have better managerial capability, which will create opportunities to exploit. It is worth noting that entrepreneurship skills acquired through education by means of teaching and learning would enable entrepreneurs to uncover opportunities that would prompt the discovery of new ideas. As stated by Alvarez-Risco *et al.* (2021), prior knowledge empowers entrepreneurship students to exploit entrepreneurial opportunities. For university students to fully acquire entrepreneurial skills, the need arises for a skills-based pedagogy that requires a teaching and learning philosophy that inspires the development and practice of entrepreneurial skills.

Teaching and Learning to Develop Entrepreneurship Skills

Teaching and learning about enterprise have to deal mainly with the creation of awareness and should have the explicit motive of instructing students on the numerous characteristics necessary to begin and maintain a business, typically from a theoretical viewpoint (Ismail *et al.*, 2021). In this category, business management and modules that seek to boost skills and run business enterprises successfully should be incorporated. Secondly, teaching and learning about enterprise should deal more with the preparation of students to be self-employed, with the aim of inspiring undergraduate students to start and manage businesses of their own (Ismail *et al.*, 2021). In this case, students are to be taught the practical skills required to start small businesses; the courses should be centred around business plan preparation.

Ferreras-Garcia *et al.* (2021) emphasise the importance of business management training and skills. The authors aver that there are diversities of focusses in business management on which entrepreneurship skill development among students should be focused. Such focuses could include project development, quality control, and the management of business growth. It is worth noting that the earlier the start of entrepreneurship skills development, the better the result will be. Entrepreneurship education is proven to have a positive impact on four areas that are critical to entrepreneurship students (Clark *et al.*, 2021):

- Fearlessness about capacity to begin a business.
- understanding Financial and businesses issues
- Aspiration to begin self-business; and
- Aspiration to commence university education.

According to Clark *et al.* (2021), the teaching process can strengthen the aspiration and opportunity to become entrepreneurs if fully utilised. For university students to fully acquire entrepreneurship skills, they should be mindful of the role that personal involvement, role models, effective time management, and support from advisors play in business success. Providing training for business skills acquisition would be a basic step toward empowering young South Africans (university students). Nonetheless, to accomplish a transformative change, teaching and learning about entrepreneurship skills should emphasise the deeper psychological and social limitations encountered by young entrepreneurs. Also, attention should be given to business role models who

will serve as motivators for the students. Meanwhile, little attention is given to the role models and success stories of entrepreneurs in South Africa. The importance and recognition of role models must receive more attention and be included in education programs.

Chaka and Adanlawo (2022) advise that certain entrepreneurial skills should be introduced during the teaching and learning process. For personal development as an entrepreneur, knowledge acquired through teaching and learning are possible measures. According to Chaka and Adanlawo (2022), the best measures at universities and other higher institutions for inspiration in creating young entrepreneurs may be:

1. Exploration of instances of achievement.
2. Teamwork.
3. Rivalry encouragement.
4. Generation of ideas.
5. Meeting genuine business visionaries

More so, characteristics such as risk-taking, creativity, and innovativeness should also be incorporated into the teaching and learning process. Such characteristics can be developed through contextual analysis, discussions, teamwork, and listening to the success stories of successful entrepreneurs. The rising question is: How easy is it to teach university students to invent a creation that will bring about economic equilibrium? Undiyaundeye and Otu (2015) advise that it is better for an entrepreneur to identify opportunities to make profit instead of creating them. This indicates that an entrepreneurship student could benefit from teaching and learning without essentially requiring the ability to be creative.

Deon (2017) differentiates between the learning and teaching of entrepreneurship in higher institutions. The author describes entrepreneurial teaching as an educational class that imparts business knowledge and skills to students. While a learning approach includes mechanisms for teaching and learning, it's regarded as the highest level of knowledge transfer. Thereby, elaboration on learning entrepreneurial skills is important in the syllabus. Ferreras-Garcia, Sales-Zaguirre and Serradell-Lopez (2021) state that logical thinking is taught by many entrepreneur's teachers instead of entrepreneurial thinking. The authors argued that logical thinking could result in incorrect answers. A shift from teaching to learning is recommended, as the students can learn when they perform the skill.

Clark et al. (2021) recommends that various teaching and learning techniques be introduced to simplify entrepreneurial learning and differentiate hypothetical information from experience acquired through practice. It is obvious from the writing that the learning strategies utilised in entrepreneurship teaching and learning differ considerably from lectures, presentations, and group discussion. Entrepreneurship is a learned phenomenon. It can be developed through education and

can be learned. Teaching and learning is an appropriate tool to use to develop university students into employers that will make a meaningful contribution to the economy.

CONCLUSION

Universities play a crucial role in the development of entrepreneurial abilities. Universities are crucial in developing the innovative concepts of new enterprises. They provide teaching in entrepreneurship that fosters and develops the attitudes, skills, and competencies necessary for students to engage in an entrepreneurial manner (Peschl, Deng, & Larson, 2021). Universities serve as significant institutional determinants for the creation of knowledge because they provide training and the ability for academics to produce "knowledge innovations" that can be formally or informally passed on to students through teaching and learning. Universities should encourage entrepreneurial behaviour, from raising awareness to inspiring and implementing ideas. They should run the Supporting Entrepreneurship program, which provides training, teaching, learning, and infrastructural assistance to support and encourage knowledge-based entrepreneurship while preparing students for careers as entrepreneurs after their studies. We draw the conclusion that entrepreneurial growth in teaching and learning, which is regarded as a critical tool for supporting effective entrepreneurial activity, requires specific attention.

REFERENCES

- Adanlawo, E. F. & Chaka, M. (2022): COVID-19: The constrains and enabler in changing the teaching, learning and assessments landscape in higher institutions of learning. *Journal of Positive School Psychology*, 6(2,), 4647-4652.
- Adanlawo, E. F. & Vezi-Magigaba, M. (2021). Informal financing and the performance of small and medium-scale enterprises (SMEs). *Psychology and Education Journal*, 58(4), 3307-3315.
- Adanlawo, E. F. & Vezi-Magigaba, M. (2022). Exploring the impact of tax policies on small and medium scale enterprises' (SMEs) performance in Nigerian economy. *The Business and Management Review*, Volume 13, Number 1, Page 7-14. Conference Proceedings of the Centre for Business and Economic Research, ICBED- 2022, 11-12 April.
- Adanlawo, E. F., Vezi-Magigaba, M. & Owolabi, C. (2021): Small and medium scale enterprises in Nigeria: The Effect on Economy and People's Welfare. *African Journal of Development Studies*, 11(2), 163-181.
- Alvarez-Risco, A., Mlodzianowska, S., Zamora-Ramos, U., Del-Aguila-Arcentales, S. (2021). Factors of green entrepreneurship intention in international business university students: The case of Peru. *Entrepreneurial Business and Economics Review*, 9(4), 85-100.
- Aminu, S. (2014). Knowledge management and development of entrepreneurial skills among students in vocational technical institutions in Lagos, Nigeria. *The Electronic Journal of Knowledge Management*, 12(2), 144- 154.
- Anderson, A. (2017). Factors affecting small & medium enterprises (SMEs) startup and growth in Tanzania. *The Pan-African Journal of Business Management*, 1(1), 1-27.

-
- Chaka, M., & Adanlawo, E. F. (2022). Role of public relations (PR) in nation-building: A case study of South Africa. *Journal of Nation-building & Policy Studies*, 6(3), 5-21.
- Clark, D., Reboud, S., Toutain, O., Ballereau, V. & Mazzarol, M. (2021). Entrepreneurial education: an entrepreneurial ecosystem approach. *Journal of Management & Organization*, 27, 694–714 doi:10.1017/jmo.2020.26
- Ferreras-Garcia, R., Sales-Zaguirre, J. & Serradell-Lopez, E. (2021). Developing entrepreneurial competencies in higher education: a structural model approach. *Education + Training*, 63(5), 720-743. doi 10.1108/ET-09-2020-0257
- Foster, H. L. S. (2022). Leading universities entrepreneurially post COVID-19. *Handbook of Research on Entrepreneurship and Organizational Resilience During Unprecedented Times*, 394.
- Fuster, E., Padilla-Meléndez, A., Lockett, N., & del-Águila-Obra, A. R. (2019). The emerging role of university spin-off companies in developing regional entrepreneurial university ecosystems: The case of Andalusia. *Technological Forecasting and Social Change*, 141, 219-231.
- Gorzelany, J., Gorzelany-Dziadkowiec, M., Luty, L., Firlej, K., Gaisch, M., Dudziak, O., & Scott, C. (2021). Finding links between organisation's culture and innovation. The impact of organisational culture on university innovativeness. *Plos one*, 16(10), e0257962.
- Greblikaite, J., Sroka, W., & Gerulaitiene, N. (2016). Involving Young People in Polish and Lithuanian Social Enterprises by Fostering Entrepreneurial Skills and Abilities as Entrepreneurial Opportunity at University. *Entrepreneurial Business and Economics Review*, 4(3), 131-152.
- Ismail, A., Adnan, W., Masek, A., Hassan, R., Hashim, S. & Ismail, M. (2019). Effectiveness of Entrepreneurship Programmes in Developing Entrepreneurship Skills towards Quality TVET Graduates. *Journal of Technical Education and Training*, 11(1), 81-86.
- Jessop, B. (2017). Varieties of academic capitalism and entrepreneurial universities: On past research and three thought experiments. *Higher Education*, 73, 853-870.
- Kanayo, O. (2021). Determinants of female entrepreneurship success in the agricultural sector: An examination of SMEs in South Africa. *International Journal of Economics and Financial Issues*, 11(3), 123-133. doi: <https://doi.org/10.32479/ijefi.11274>
- Klofsten, M., Fayolle, A., Guerrero, M., Mian, S., Urbano, D., & Wright, M. (2019). The entrepreneurial university as driver for economic growth and social change-Key strategic challenges. *Technological Forecasting and Social Change*, 141, 149-158.
- Li, L., & Guo, R. (2015). A student-centered guest lecturing: A constructivism approach to promote student engagement. *Journal of instructional pedagogies*, 15.
- Martin, C. (2015), Needs and perspectives of entrepreneurship education for postgraduate students. *A Romanian case studies. Journal Plus Education*, 2(1), 153-157.
-

-
- Peschl, H., Deng, C., & Larson, N. (2021). Entrepreneurial thinking: A signature pedagogy for an uncertain 21st century. *The International Journal of Management Education*, 19(1), 100427.
- Reddy, M. M., & Adanlawo, E. F. (2018). Communication's module: Inclusion within all undergraduate qualification at higher education institutions. *Gender and behaviour*, 16(2), 11359-11376.
- Sailin, S. N., & Mahmor, N. A. (2018). Improving Student Teachers'™ Digital Pedagogy through Meaningful Learning Activities. *Malaysian Journal of Learning and Instruction*, 15(2), 143-173.
- Sitharam, S. & Hoque, M. (2016) Factors affecting the performance of small and medium enterprises in KwaZulu-Natal, South Africa. *Problems and Perspectives in Management*, 14(2), 227-288.
- Sulistyowati, T. (2019). Bottom-up and top-down listening processes within cognitive constructivist learning theory. *PROMINENT Journal*, 2(1), 92-100.
- Undiyaundeye, F. & Otu, E. (2015). Entrepreneurship skills acquisition and the benefits amongst the undergraduate students in Nigeria. *European Journal of Social Sciences Education and Research*, 2(3), 9-14.
- Van Vuuren, J. & Groenewald, D. (2007). A critical analysis of the influence of start-up factors in small businesses and entrepreneurial ventures in South Africa. *Acta Commercii*, 269-280.
- Wang, Q. (2021). Higher education institutions and entrepreneurship in underserved communities. *Higher Education*, 81, 1273-1291.
- Webb, A., McQuaid, R. W., & Webster, C. W. R. (2021). Moving learning online and the COVID-19 pandemic: A university response. *World Journal of Science, Technology and Sustainable Development*, 18(1), 1-19.
- Witbooi, M. & Ukpere, W. (2011). Indigenous female entrepreneurship: Analytical study on access to finance for women entrepreneurs in South Africa. *African Journal of Business Management*, 5(14), 5646-5657. doi: 10.5897/AJBM10.1161
- de Waal, G. A., & Maritz, A. (2022). A disruptive model for delivering higher education programs within the context of entrepreneurship education. *Education+ Training*, 64(1), 126-140.
- Alzaanin Dr, E. I. (2020). Combining case study design and constructivist grounded theory to theorize language teacher cognition. *The Qualitative Report*, 25(5), 1361-1376.
- Juvova, A., Chudy, S., Neumeister, P., Plischke, J., & Kvintova, J. (2015). Reflection of constructivist theories in current educational practice. *Universal Journal of Educational Research*, 3(5), 345-349.
- Mann, K., & MacLeod, A. (2015). Constructivism: learning theories and approaches to research. *Researching medical education*, 49-66.
-

- Sun, H., Pofoura, A. K., Mensah, I. A., Li, L., & Mohsin, M. (2020). The role of environmental entrepreneurship for sustainable development: evidence from 35 countries in Sub-Saharan Africa. *Science of the Total Environment*, 741, 140132.
- Nkomo, N. Y., & Adanlawo, E. F. (2023). The implications of population ageing on savings rates. *Management and Entrepreneurship: Trends of Development*, 2(24), 8-16.
- Leonidou, E., Christofi, M., Vrontis, D., & Thrassou, A. (2020). An integrative framework of stakeholder engagement for innovation management and entrepreneurship development. *Journal of Business Research*, 119, 245-258.
- Salles-Filho, S., Fischer, B., Juk, Y., Feitosa, P., & Colugnati, F. A. (2022). Acknowledging diversity in knowledge-intensive entrepreneurship: Assessing the Brazilian small business innovation research. *The Journal of Technology Transfer*, 1-20.

SSIRC 2023-166**EXPLORING THE POLICE VIEWS IN DEALING WITH FAMILY PARTNERS' CONFLICT CASE REPORTS IN LESOTHO****C.F. Molefe**

Durban University of Technology, South Africa

J. Mesuwini

The University of South Africa, South Africa

ABSTRACT

This paper explores the views of the Lesotho Mounted Police Service (LMPS) attached to the Child and Gender Protection Unit (CGPU) in dealing with conflict management of the family partners in the community. The police mobilise the community to prevent conflicts among the family partners. They reacted to the reported cases by effecting mediation or arrests where needed. LMPS is mandated to curb violence and crime in Lesotho. The Police Act of 1998 articulates that the mandate of the LMPS is to provide safety and security in Lesotho. Hence, conflict management becomes a strategy to provide safety and security. The police need to reveal whether they are well equipped with relevant skills in performing their duties effectively and efficiently. The study employed a qualitative design. Maseru Urban and Maseru Rural areas were covered in the research. Sixteen police officers comprising eight from each station formed part of the research. Participants were interviewed face to face, and four police officers from each station were observed for triangulation. The study adopted the symbolic interactionism theoretical framework, acknowledging that different people perceive issues differently. Deductive and inductive approaches were used to analyse data and identify patterns. All forms of assault were experienced, such as common assault, grievous bodily harm and murder, because of partner conflict in the community. Therefore, skilled and knowledgeable police officers would manage conflicts effectively and efficiently in Lesotho. The management of LMPS has a responsibility to curb crime that might emanate from community members whose conflicts were not well managed or solved. Adequate education and training and a conducive atmosphere for conflict management processes are paramount to ensure victims receive the necessary assistance. Police working in CGPU need education and training in counselling, psychology, and play therapy to improve their contact with victims of crime.

KEYWORDS: Police, family partners, conflicts management, community, mediation, violence, crime

INTRODUCTION

This paper explores the views of the Lesotho police on dealing with conflict of the partners in the community in Lesotho. The police mobilise the community to prevent conflicts among family partners. They would also react to the cases reported on the same issue by effecting arrests where necessary. The Lesotho Mounted Police Service (LMPS) is mandated to curb all sorts of violence and crime in Lesotho (Government of Lesotho, Constitution of Lesotho, 1993). The Police Act of 1998 (Government of Lesotho, Police Service Act, 1998) articulates that the mandate of the LMPS is to provide safety and security in Lesotho. Section 24 of the Police Service Act of 1998 indicates that police officers should “*preserve the peace and maintain law and order*”. Therefore, amongst

many types of crime committed, conflicts between married and unmarried (single) partners play a major role in criminal activities.

As a result, all forms of assault such as common assault, grievous bodily harm and murder are experienced. The article scrutinised education and training received by the police regarding conflict management strategies. This included examining the training to manage gender-based or domestic violence in conflict conditions. Examining the Child and Gender Protection Unit (CGPU) within the LMPS, this paper recommends police training so as to manage conflict situations effectively in the LMPS. The key research question to be addressed is: What are the police views on dealing with family partners' conflict cases in Lesotho? Also vitally important is for the police to reveal whether and the extent to which they are equipped with relevant skills in performing their duties effectively and efficiently. Further worth considering is the infrastructure, that is the working environment of the police officers, because of being potentially conducive to conflict management. Equally pertinent is the behaviour of the police during interventional sessions, something which largely manifests their level of education and training.

LITERATURE REVIEW

The Lesotho community members report conflicts to the police at different stations in the country. Research into managing conflicts within communities by the Lesotho police service or other organisations within the Southern African context has not been done. Authorities argue that foreign actors such as the Southern African Development Corporation (SADC) and the Republic of South Africa have not assisted Lesotho in numerous conflict resolutions that have been occurring in the country (Monyake, 2020; Kali, 2021). They saw that Lesotho civil society organisations (CSOs) as having potentially positive contribution to peace-building in the country. On this basis, the CSOs could more effectively mediate in conflicts because of their interaction with the parties concerned, particularly the politicians and the army (Letsie, 2018).

Letsie (2018) argues that the Lesotho army should be dispersed since it mostly conflict with civilians and the government due to acts of criminality. The study recommends the engagement of the police service in the security and safety of the citizens of Lesotho. Causes of conflict within societies and families in Africa should not be associated with poverty alone; rather, they should include political, structural and sociological aspects (Okunlola & Okafor, 2020). The authors categorised conflict in society, thus viewing it as entailing economic statuses, conjugal rights and assaults. Therefore, mediation processes become the focal point in conflict management within the communities in Lesotho.

Worth noting are different opinions about dealing with conflicts in various aspects of life, such as in the family setting. Cooper (2012) from America argues that the interaction between institutions, groups and individuals requires conflict management skills. Therefore, Lesotho police should be equipped with skills and knowledge to curb conflicts within their communities. In order to carry out such social functions, the police should be educated and trained to gain relevant policing skills. With such skills, the police could easily handle conflicting parties and help them to resolve their differences, under guidance of the mediating police officers. Godiwalla values the presence of the police in society (Godiwalla, 2016), where the police play a critical role in crime prevention strategies such as effecting arrests and taking the offenders to court for sentencing and performing conflict management whenever necessary.

Lesotho police officers treat crimes reported to them according to their merits. Such serious crimes as murder, sexual offences, and grievous bodily harm, to mention a few, are not compromised by execution of mediation; rather, they are referred to court. Hence, the offenders would be arrested and brought to the magistrate courts, before the judges depending on the type of crime committed by the partner. However, frequent communication between the police and the members of the communities is crucial. Such a regular interaction could help, especially with enhancing awareness campaigns geared towards minimising and/or avoiding any conflicts within the families. Citizen and police officers' communication improves relations between police officers and society, resulting in the perceived outcomes (Commission Police Advisory, 2020). Drawing on the symbolic interactionist theory, this study could obtain a more in-depth understanding of conflict relations and conflict management strategies in given social settings, particularly in the context of Lesotho.

Renauer's (2012) study on the police's stop supports the Commission Police Advisory (2020) and search practice in Portland (USA, Oregon). The study further argues for a need for both the police and the community to have the same opinion on the conflicting viewpoint. In order to achieve this notion the CGPU conducted public gatherings, visiting communities, schools, churches and organising sporting events to promote interaction and good relationships. Renauer (2012) noted consensus and conflict approaches to explaining stop-and-search rates in 94 neighbourhoods. This quantitative study revealed that the police focused on the need for the police and the community to understand and agree on their perspectives.

Theoretical framework

This study has focused on education and training in community conflict management in the Child and Gender Protection Unit (CGPU). To achieve this objective, the study has drawn on symbolic interactionist theory. Symbolic interactionism is a sociological school of thought that enlightens social behaviour in terms of how people communicate with each other via symbols. Founded by Blumer (1969), the theory is concerned with sociology, symbolic interactionism and sociological research methods. With the theory, Blumer reflected on the nature, and elements of meaning-making during the interaction, using language as a central element of symbolic interactionism (Aksan, Kısac, Aydın, & Demirbuken, 2009).

From the symbolic interactionist perspective, social structures are understood in terms of such individual interactions. The development of symbolic interactionism can be traced to America. Associated with such historical development, symbolic interactionism has also been adapted to such fields as educational theories, which are in this case relevant to this study.

Therefore, the theoretical premise of symbolic interactionism also has an ancient origin, directly linked to the development of human cognitive thinking and value system, both in the East and West (Lihn, 2019).

In addition, the symbolic interactionist theory is connected to human development, with scholars thereby highlighting how people interact with one another in society. On this premise, I examined the social behaviour which could be gleaned during conflict management situations. It was therefore instructive to target the police officers dealing with people who live together, that is the

people with tendencies of disassociating themselves by committing offences. As such, the notion of symbolic interactionism relates to partners who experience conflicts in their families.

According to Redmond (2015, p. 3),

“Symbolic interactionism is essentially about how the presence of symbols is fundamental to the existence of societies, our self-concepts, and our minds”.

Redmond believes that in society using symbols for interaction is necessary. However, such symbols should be used for the betterment of the society. When interactional relationships become problematic and unsafe for either of the partners or both, institutions like the police should intervene so as to restore harmony. As noted earlier, such philosophical assumptions as typified by pragmatism, social behaviourism and neo-Hegelianism as symbolic interactionism could be considered. Highlighting how individuals form social worlds through symbols during interaction, Quist-Adade (2018) reveals the importance of communication in society. In this view, people in different cultures interact about developmental issues and concerns. Of particular mention are the families who communicate about their children, family improvements and many more. It is, therefore, important for families to have effective and efficient communication. With the symbolic interactionist premises, such distinctive values as self, society, and the environment at large could be ensured (Husin, Rahman & Mukhtar, 2021). On this basis, the theory considers personality and environment traits of individuals. Any individual person is considered to be part of society, living in a certain environment, in which such influences as a way of life, culture, norms and social psychology are at play.

It should be noted that the theory values various nuances of meaning-making by different members of the community who live in the same environment. People’s perceptions, thoughts and motivation, including family partners, could differ over what is correct or incorrect, at times resulting in conflicts. With any such conflicts looming large, the police would thus come on board for intervening. Only with requisite skills and knowledge could the police perform their duty as expected by society, especially in the cases of the partners involved in domestic conflicts.

METHODOLOGY

Methodology can be seen as describing the data generation and analysis methods used in research. The methodology section explains what is done and how it was done (George & McCombes, n.d.). This paper adopted a qualitative approach and research design. Fundamental to research methodology and data generation are guidelines for researchers, including postgraduate students who experience challenges of how to start and what to do (Igwenagu, 2016). Under the rubric of research methodology, researchers should follow not only certain principles, but they should follow relevant steps to collect data in any given research context.

Research design

Equally, notable for research is a research design. A research design guides all components of the study, including the data collection and analysis procedures. A research design is an outline of a

systematic study, which includes research methodologies, tools and techniques to conduct the research (Emeritus, 2022). Emeritus further indicates that the principles of a research design encompasses identifying the problem, reviewing the literature, stipulating a hypothesis, and defining data sources and how data can be understood. This paper, therefore, followed a qualitative approach.

Sampling method

A sample is a specific group that a researcher collects data from it. The size of the sample is smaller than the total size of the population. A sample is a subdivision of the population described above (SAGE, 2019). Because of financial and time constraints, it would not be possible for the researcher to collect data from the whole population of any research interest. As such, for this study, 16 police officers from two police stations, Maseru Urban and Maseru Rural constituted the sample from whom the data were collected for analysis. Eight respondents from each station constitute the sample of this article. In particular, the police officers, with experience in conflict management procedures were interviewed and observed when performing mediation. Since a gender variable was of interest here, both male and female police officers considered for interviews. On this basis, a purposive sampling technique was adopted. As Etikan, Musa and Alkassim (2016) put, a purposive sampling technique is done deliberately due to the participants' qualities. Sampling of this nature includes people who can respond to the questions asked by the researcher. They are not ordinary respondents, but they have relevant knowledge about and work experience in the focal research phenomenon.

Research instruments

Research is conducted, using different research instruments to collect data. This paper adopted interviews, observations, focus groups, debates as well as a questionnaire for data collection. Ikehi (2015) recommends the utilisation of the questionnaire as one of the strategies in educational research for generating and quantifying data. Some authorities such as Anaekwe (2007), Iketaku (2011) and Uzoagulu (2011) alluded that educational research instruments include document reviews, observation methods, interview techniques, rating or measuring scales and questionnaires.

Data collection

Noting the above-mentioned instruments, some of the phases include data collection in a research study. With such, the researcher could discover responses from the participants regarding the research questions. Data collection thus advances understanding regarding the research topic (Taherdoost, 2021). Using the afore-stated methods of data collection, this study targeted the police officers attached to CGPU in the two districts, Maseru Rural and Urban. Sixteen police officers from the two districts were observed when performing their mediatory roles amongst the community members who were in conflict. As a way of complementing the observations, the target police officers were interviewed, including those who had not been involved, nor participated in observations. Based on the principles of qualitative research, these two complementary data collection techniques were used for triangulation purposes of the research.

A triangulation procedure increases the credibility and validity of research findings (Noble & Heale, 2019). For the authors, one of the limitations of triangulation is that of consuming much

time. The interviews helped me to collect relevant data concerning the police officers' feelings about and experiences in mediating between the family partners concerned, that is those directly involved in conflicts. I employed semi-structured interviews, with the target police officers who had directly been involved in intervening between the partners in conflicts. The semi-structured interview technique is considered to be powerful and flexible, allowing respondents to elaborate on their responses (Ruslin *et al.*, 2022). The technique digs out for the relevant information required by the researcher, for the purpose of both collecting and analysing the data.

Semi-structured interviews became one of the research tools used by Pitikoe (2016) to generate data, others included unstructured interviews, transect walk and photo voice.

Data analysis

Qualitative analysis was used for this article. Belotto (2018) argues that the principles of data analysis that could be adopted in qualitative research include coding, interrater reliability and thematic analysis. The coding process permitted the understanding of large sections of text and information. Measuring how these meaning components were connected leads to identifying themes (Belotto, 2018). Deductive and inductive approaches were used to analyse data and identify patterns. Pitikoe (2016) reported to have employed an inductive analysis when interpreting the themes that emerged from the data gathered for her study. She also used deductive analysis to identify interrelated themes with her theoretical frameworks. As a result, she had an opportunity to make meaning out of her data which enabled her to relate her findings to the relevant literature reviewed in the study. According to Oussi (2020), deductive reasoning emanates from basic form, whereas inductive creates generalization from specific interpretation.

The data were repeatedly read in order to identify patterns that developed. Deductive analysis followed, where patterns evolving from the research questions were analysed to form themes. The themes were interconnected to the theoretical and empirical literature. More nuances of meaning were identified from the data, thus allowing the researcher to relate the findings to the relevant literature. Besides, this paper employed coding and thematic analysis as noted above. With the generated data allocated into identified codes, the thematic areas thus developed. In the ensuing, a thematic analytic approach was employed to interpret the data. As such, the impact of the performance of police officers who had intervened during the conflict management of family partners could be noted (Dawadi, 2020).

RESULTS AND DISCUSSION

Many police officers have been educated at different higher-learning institutions. Nonetheless, education and training on conflict management compromised such aspects as customer care, counselling, play therapy and psychology, which have not been prioritised. The police working in the CGPU of the LMPS should be given opportunities for education and training, focusing on the afore-stated fields of the participants in this study, one female police, Rural 5 advocated that:

I have a degree in Business Entrepreneurship (BABE), which I obtained at the National University of Lesotho (NUL) (IEMS). I have never been afforded any opportunity to further my studies, such that the degree I have was just my initiative.

Even though Police Rural 5 was not afforded education and training relevant to her work, she created an opportunity to enroll at a higher-learning institution. The skills and knowledge she

acquired may contribute to conflict management. However, other officers could not afford the same educational and training opportunity as did she.

The male Police Rural 2 stated:

I have not been given any opportunity for training since I started working in CGPU. Luckily enough, I have experienced many things from the police work, which help me to perform my police duties in the CGPU.

This officer can perform mediatory functions drawing on his police experience; he has not been given any training, nor has he initiated any learning opportunities during his police service. The male Police Urban 2 added:

I have never been to any training relevant to the CGPU office.

The police officers that work in the CGPU should be equipped with relevant skills and knowledge to perform their job effectively and efficiently. The Government of Lesotho should provide enough budget for training on these aspects of policing. With such skills, the police could address conflict management needs between the family partners. Therefore, police officers who enroll for education at any institution should consult the police management for guidance on the fields of study relevant to education and training on conflict management in the police service. In what follows is the declaration by one female Police Rural 8:

I believe that skilled police officers have potential to perform as expected at their daily work. Therefore, it is mandatory to possess counselling, play therapy and customer care skills.

The above-mentioned police officer confirmed the need for skills and knowledge on counselling and play therapy so as to handle conflicts professionally. The study revealed that the Lesotho Mounted Police had a limited working space to carry out conflict interventional duties. Even the available offices are too small and decrepit. As a result, more offices should be constructed to accommodate police officers and their clients. The old ones should be renovated. The heads of the CGPU offices at the Maseru Urban and the Maser Rural Police Stations reportedly raised concerns about working in small and dilapidated offices; hence, the government should construct more offices. In their view, if provided with enough space, they would work conveniently with other police officers and clients who need police services.

The paper established that police officers deal with different types of crimes, which include assault common, grievous bodily harm and murder. Such offences could result from conflicts emanating from the partners and sometimes spreading to the whole community. The findings revealed that economic issues such as abuse of funds, denial of conjugal rights, gender issues and drunkenness are the source of conflicts. The study also discovered that men spend money on alcoholic drinks and assault their wives when drunk. They also denied them their conjugal rights. Some partners have been found to spend so much on alcoholic drinks to that the family cannot provide for basic needs such as food, clothing and school fees. As a result, conflicts take place in the family. When family partners experience clashing views or beliefs, they end up having conflicts within their set-ups (Estevez, 2019). Conflicts could occur when people misinterpret each other and jump into wrong assumptions. Sometimes, partners have different opinions, which is natural. However, it becomes problematic when both parties fail to come together, share ideas, agree to disagree and find a solution.

If each party does not want to compromise, there would be no progress, and then conflicts ensue. When conflicts have been established, an independent body such as well-trained police officers, would be invited to intervene by one of the parties. Most of the time, women are the reporting victims. According to Jayachandran (2014), gender supports males as compared to females in many aspects of life, such as education, health, and personal autonomy, in less developed countries. Nonetheless, on rare occasions, both parties sought intervention. When these conflicts are not properly managed, they result in criminal activities, as mentioned above. Consequently, not only would the partners be affected, but the children would also suffer the consequences. Children's education is tempered with at school because conflicted parents hardly pay fees for children. Sometimes vulnerable children are the result of family conflicts.

Therefore, skilled and knowledgeable police officers would manage conflicts effectively and efficiently in Lesotho. The findings showed that within the LMPS, especially the CGPU, there are handy police officers with tertiary education obtained from different universities and colleges. Their education and training were determined by themselves, following their interests in learning and acquiring some skills and knowledge. Most of them were allowed to further their education; however, they did not involve the LMPS management in choosing their fields of study. Therefore, the educational needs of the LMPS, especially focusing on conflict management were not met. The findings also established that CGPU could perform better if the police working in this unit possessed skills in psychology, play therapy and counselling. The police officers, specifically those attached to CGPU, work with people's thinking and reasoning. They should be equipped with skills to help the family members to accommodate how their partners behave in certain situations. Therefore, psychological studies would help them to address issues related to conflict management. To achieve such objectives, they would reach out through awareness creation during public gatherings, church visits and many more meetings with the community.

The LMPS management of should persuade the Government of Lesotho to invest specifically in education geared towards equipping the police with effective and efficient conflict management skills. This could be done by inspiring the police officers to take relevant educational fields to CGPU, as mentioned above. The police management, in partnership with the National University of Lesotho and other institutions such as the Lesotho Institute of Public Administration and Management (LIPAM), could facilitate programmes for furthering the education of police.

CONCLUSION

In order to show whether and the extent to which it has achieved the aim, this study has made several observations. This study showed the need for education and training regarding conflict management skills and knowledge geared towards the police in the country. Many police officers have graduated from higher-learning institutions such as universities and colleges. However, education and training on conflict management as in customer care, counselling, play therapy, and psychology, have not been offered despite their paramount importance. Therefore, the Lesotho police who deal with conflict management in the CGPU and other units in the LMPS should be provided with such education and training. Policy makers should invest in education and training relevant to conflict management. The study illuminated that the mediation environment for the police should be upgraded to maintain the privacy of the clients and the police, themselves. The infrastructure of the police offices should be modernised. The Lesotho police still work in small

and dilapidated offices, thus compromising privacy of both the employees and clientele. With the infrastructural development worth considering the Government of Lesotho, the police officers should also observe issues of customer care services, including efficiency and refraining from answering private calls while performing mediation. The movement of police and clients during mediation should be minimised to facilitate the running interventional sessions by the police officers. With all such required resources and infrastructure addressed, the police mediatory duties on conflict management could be effective and efficient, thus giving and/or restoring the image of the institution.

REFERENCES

- Aksan, N., Kısac, B., Aydın, M., & Demirbuken, S. 2. (2009). Symbolic interactionism theory. *World Conference on Educational Sciences*. Athens. Retrieved from <https://cyberleninka.org/article/n/1076813>
- Anaekwe, C. M. (2007). *Basic research methods and statistics in education and social sciences*. Retrieved from Sofie Publicity and Printry Ltd: [https://www.scirp.org/\(S\(czeh2tfqw2orz553k1w0r45\)\)/reference/referencespapers.aspx?referenceid=1857111](https://www.scirp.org/(S(czeh2tfqw2orz553k1w0r45))/reference/referencespapers.aspx?referenceid=1857111)
- Belotto, M. (2018). Data analysis methods for qualitative research: Managing the challenges of coding, Interrater Reliability, and thematic analysis. *The Qualitative Report*, 23(11), 2622-2633.
- Blumer, H. (1969). *Symbolic interactionism: perspective and method*. Englewood Cliff NJ: Prentice Hall.
- Commission Police Advisory. (2020). Retrieved from <https://www.phila.gov/media/20200826150734/PAC-Mediation-External-Report-12.28.19.pdf>
- Cooper, J. A. (2012). Noble cause corruption as a consequence of role conflict in the police organisation. *An International Journal of Research and Policy*, 22(2), 169 - 184.
- Dawadi, S. (2020). Thematic analysis approach: A tep by step guide. *Journal of Nelta*, 25(1-2), 62 - 70.
- Emeritus*. (2022). Retrieved from <https://emeritus.org/in/learn/types-of-research-design/#:~:text=Research%20design%20is%20a%20blueprint,process%20of%20research%20and%20analysis>.
- Estevez, J. D. (2019). Family conflicts and their developmental Implications: A conceptual analysis of meanings for the structure of relationships. Retrieved from file:///C:/Users/AHT/Downloads/EstevezJID_7_14.pdf
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convinience sampling and purposes sampling . *American journal of theoritical and applied statistics*, 5(1), 1-4.
- George, T., & McCombes, S. (n.d.). Retrieved from <https://www.scribbr.com/dissertation/methodology/>

-
- Godiwalla, Y. H. (2016). Conflict management strategies in global firms. *Journal of Management Policy and Practice*, 17(2), 11-19.
- Government of Lesotho. (1993). Constitution of Lesotho. Maseru, Lesotho: Government Printing.
- Government of Lesotho. (1998). *Police Service Act*. Maseru: Government Printers.
- Husin, S. S., Rahman, A. A., & Mukhtar, D. (2021). The symbolic interactionism theory: A systematic literature review of current research. *International Jurnal of Modern Trends in Solcial Sciences (IJMTSS)*, 4(17), 113 - 126.
- Igwenagu, C. (2016). *Fundamentals of research methodology and data collection*. Nigeria: LAP lambert academic publishing.
- Ikehi, M. (2015). Instrument suitability for assessment study in educational research. University of Nigeria. Retrieved from https://www.researchgate.net/publication/279956498_instrument_suitability_for_assessment_study_in_educational_research
- Iketaku, I. R. (2011). *Introduction to educational research and statistics*. Retrieved from Fidgina Global Books: [https://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/referencespapers.aspx?referenceid=1857119](https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/referencespapers.aspx?referenceid=1857119)
- Jayachandran, S. (2014). *The roots of gender inequality in development countries*. Retrieved from https://www.nber.org/system/files/working_papers/w20380/w20380.pdf
- Kali. (2021). *The untold story of civil society organisations' contribution to peacebuilding in Lesotho*. Retrieved from Springer Link: <https://link.springer.com/article/10.1057/s41311-021-00345-w>
- Letsie, T. W. (2018). Retrieved from https://www.lonelyplanet.com/maps/africa/lesotho/map_of_lesotho.jpg
- Lihn, N. P. (2019). Symbolic interactionism from theoretical origin to the role of social interaction and international integration. *British Journal of English Linguistics*, 7(5), 18-24.
- Monyake, M. (2020). *Assurance dilemmas of the endangered institutional reforms process in Lesotho*. Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/00083968.2020.1834418?journalCode=racs20>
- Noble, H., & Heale, R. (2019). Triangulation in research, with examples. *Evid Based Nurs*, 22(3), 67-68.
- Okunlola, O. C., & Okafor, I. G. (2020). Conflict-Poverty Relationship in Africa: A disaggregated Approach. *Journal of Interdisciplinary Economics*, 34(1). doi:doi/10.1177/0260107920935726
- Oussi, Y. (2020). Understanding Inductive reasoning and deductive reasoning. University of the
-

- People.
https://www.researchgate.net/publication/342396307_Understanding_Inductive_reasoning_and_deductive_reasoning.
- Pitikoe, S. (2016). Male herders in Lesotho: Life history identities and educational ambitions. Pietermaritzburg: University of KwaZulu-Natal.
- Quist-Adade, C. (2018). *Symbolic interactionism: The basics*. Surrey, BC,, Canada: Vernon Press.
- Redmond, M. V. (2015). Symbolic Interactionism. Iowa State University. Retrieved from <https://core.ac.uk/download/pdf/128976014.pdf>
- Renauer, B. C. (2012). Neighborhood variation in police stops and searches. A test of consensus and conflict perspectives. *Police Quarterly*, 15(3), 219-240.
- Ruslin, R., Mashuri, S., Rasak, M., Alhabsyi, F., & Syam, H. (2022). Semi-structured interview: A methodological reflection on the development of a qualitative research instrument in educational studies. *Journal of Research & Method in Education*, 12(1), 22-29.
- SAGE. (2019). Progress in transplantation. *Article reuse guidelines*., 30(1), 3. doi:10.1177/1526924819893795
- Taherdoost, H. (2021). Data collection methods and tools for research; A step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management*, 10(1), 10-38.
- Uzoagulu, A. E. (2011). *Practical guide to writing research project report in tertiary institutions*. (Cheston Publishers) Retrieved from [https://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/ReferencesPapers.aspx?ReferenceID=1857135](https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=1857135)

SSIRC 2023-170**ENTREPRENEURSHIP EDUCATION AND ENTREPRENEURIAL INTENTIONS AMONGST STUDENTS AT A SELECTED TVET COLLEGE IN SOUTH AFRICA****M.J. Matsheke**

Vaal University of Technology, South Africa

ABSTRACT

Entrepreneurial intention (EI) is considered as an element used by researchers to measure the propensity of individuals to become entrepreneurs. Higher education institutions (HEIs) have been utilised globally by governments as mechanisms to increase the EIs of students by establishing entrepreneurship as an academic discipline and instituting entrepreneurship programmes at all educational levels. However, in South Africa, the Global Entrepreneurship Monitor (GEM) reports a decline in EIs in the last decade of the population aged 18-64 years. The current study investigated the influence of entrepreneurship education (EE) at one selected Technical and Vocational Education and Training (TVET) college in Gauteng Province, South Africa. The Theory of Planned Behaviour (TPB) was used as the theory that underpinned the study. The study adopted a survey design and followed a quantitative research approach in determining the relationship between the identified variables. A self-administered survey questionnaire was used to gather the data from the sampled students at the selected TVET college. The total number of usable questionnaires was 390. The empirical analysis was performed by means of descriptive statistics, exploratory factor analysis (EFA), Pearson correlations and regression analysis. The descriptive analysis procedure was utilised to examine the demographic profile of the respondents as well as the reliability of the study. The EFA procedure confirmed that all measurement scales applied in the study were unidimensional. The Pearson correlation analysis was used to examine the linear association between the constructs while the regression analysis was used to test the hypotheses. The results of the hypotheses tests revealed that EE was statistically significant in predicting the EI of the students. The tests further revealed that EE is also statistically significant in predicting the Attitude Towards Behaviour (ATB), Subjective Norm (SN) and Perceived Behavioural Control (PBC) of the students. The study concludes that EE is an important tool that can be used to enhance the EI of the students. Based on the results, the study recommends that subjects in the curriculum in TVET colleges should have a learning unit dedicated to stimulating entrepreneurship amongst students. Such an approach might inspire students to venture into entrepreneurship.

KEYWORDS: entrepreneurship education; attitude towards behaviour; subjective norm; perceived behavioural control; entrepreneurial intention

1. INTRODUCTION AND BACKGROUND OF THE STUDY

EI is considered a primary element used by researchers to gauge the chances of individuals becoming entrepreneurs (Franco et al., 2010). Higher education institutions have tried immensely to increase the EIs of students by establishing entrepreneurship as an academic discipline and instituting entrepreneurship programmes at all educational levels (Franco et al., 2010). According to Harrington and Kew (2016), in the Global Entrepreneurship Monitor (GEM) report, South Africa had begun to show signs of a significantly more pessimistic economic outlook when compared to the rest of the Sub-Saharan countries. The report further indicated that South Africa's economic growth has been below its annual population growth of around 1.6 percent for the past two consecutive years, which implies that the country is going rapidly backwards (Harrington & Kew, 2016). The GEM report further elucidates that South Africa has a lower rate of potential entrepreneurs when compared to the rest of the African region (Harrington & Kew, 2016). This problem calls for urgent interventions to increase entrepreneurial activities in the country. The unemployment rate was standing at 27.7 percent at the beginning of the third quarter of 2017 from 26.6 percent in 2016, indicating an increase of 1.1 percent (Statistics South Africa, 2017). This indicates a need for entrepreneurial activities to increase to counterbalance unemployment in the country (Bird & Wennberg, 2016). According to Faria et al. (2010), there is always an inverse relationship between entrepreneurship and unemployment. This implies that there should be an increase in entrepreneurial activities in South Africa given the increasing unemployment rate as noted above. The decline in entrepreneurial activities in South Africa could be attributed to the declining trend of EIs in the South African population. Over the past several years, the EIs of the population aged 18-64 years declined from 19.6 percent in 2010 to 10.1 percent in 2016 (Herrington, Kew & Mwanga, 2017). This decline poses a serious threat to the country's economic growth.

There is extensive evidence available in international literature focusing on the impact of EE on EIs (for example Franco et al., 2010; Nabi et al., 2010; Gerba, 2012; Sesen, 2013; Aloulou, 2016; Henly et al., 2017). In South Africa, several studies have already been conducted to investigate the impact of EE and entrepreneurial characteristics on university students' EIs (e.g., Fatoki, 2010; Tshikovhi & Shambare, 2015; Iwu et al., 2016; Michelle & Tendai, 2016; Matsheke & Dhurup, 2017; Musetsho & Lethoko, 2017). Isaacs et al. (2007) and Skosana (2014) assessed the level of EE and training at the Further Education and Training (FET) level in South Africa and its impact on the students' EIs. Muofhe and Du Toit (2011) and Chukuakadibia et al. (2016) conducted comparative studies on students' EIs of those who were enrolled for business studies or entrepreneurship and those who were not. Odoro (2015) and Ebewu et al. (2017) examined the influence of integrating product design and EE on the EIs of students. Debatably, there is no evidence of a theoretical framework under consideration in this study being tested in the South African higher education sector. The present study is, therefore, intended to address this existing research gap.

2. LITERATURE REVIEW

2.1. Entrepreneurial Intention

Ajzen (1991:181) asserts that “intentions are assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour”. Kusmintarti et al. (2014) view EI as a “cognitive representation of actions that are implemented by someone to establish a new business”. Padilla-Meléndez et al. (2014) define intentions to start a business as a “self-acknowledged conviction by a person who intends to start a new business venture and consciously plans to do so at some point in the future”. Besides, Ahmed et al. (2017) define EI as the state of mind which leads people towards the creation of new business ventures. Based on these definitions, this study defines EI as a conscious state of mind that leads an individual to consider starting a new business.

In entrepreneurship, it is acknowledged that EI does not occur spontaneously, but several factors contribute towards its formation. Solesvik (2013) highlights that to provide an adequately worked out explanation of a specific behaviour, such as the decision to start a new business, requires an explanation of variables that are closer to the behaviour in question. In determining the students’ intentions to start their businesses, this study has, therefore, taken into consideration the influence of EE on the EI of the students and the antecedents of the TPB.

2.2. Conceptualisation of Entrepreneurship Education

Researchers concur that entrepreneurial tendencies are not inborn but can be learnt and taught successfully (Malebane, 2016). EE has proven to be useful in contributing to the development of individuals’ EIs (Lüthje & Franke, 2003; Fayolle et al., 2006; Steenkamp et al., 2011; Küttim et al., 2014). It has, therefore, evolved to become a means to educate the twenty-first-century workforce by equipping students with skills to take any area of study or discipline and be creative, innovative, and turn it into entrepreneurial activity (Welsha et al., 2016). It should further enhance the ability of the students to discover, evaluate and exploit opportunities in the marketplace (Malebane, 2016). Consensus has not been reached as yet in so far as the definition of EE is concerned (Baptista & Naia, 2015; Vosloo et al., 2018). However, EE can be generally defined as education that aims at developing competencies in a person necessary to start up a new business (Sondari, 2014; Lackéus, 2017).

Literature confirms the existence of a relationship between EE and EI, EE and ATB, EE and SN and EE and PBC. Regarding EE and EI, several studies have reported that EE has a positive significant impact on the EI of students (for example, Hattab, 2014; Zhang et al., 2019; Boubker et al., 2021). The studies by Zhang et al. (2019) reported that EE has a significant positive impact on ATB. Concerning the impact of EE on the SN of students, the study by Gerba (2012) and Sondari (2014) reported that the SN of students is likely to increase after they have attended a course in entrepreneurship. Lastly, a study conducted by Fellnhöfer (2017) in Austria, Finland and Greece also proved EE to be significant towards the enhancement of the PBC of students towards entrepreneurship. These results are supported by the study by Ahmed et al. (2017) in Pakistan.

Based on these insights, the following hypotheses were proposed:

H1: There is a significant positive relationship between EE and EI.

H2: There is a significant positive relationship between EE and ATB.

H3: There is a significant positive relationship between EE and the SN.

H4: There is a significant positive relationship between EE and PBC.

2.3. Attitude Towards Behaviour

Engagement of individuals in any kind of behaviour usually depends on their attitude towards the attitude object. An attitude usually emanates from previous experiences and perceptions formed overtime during the individual's life (Zhang et al., 2019), especially for familiar attitude objects. An individual can also have an attitude towards an unfamiliar attitude object, and this could be mainly based on feelings about the attitude object in question (van Giesen et al., 2015).

Different scholars have defined attitudes in different ways, but their definitions somehow converge to almost the same meaning. ATB can be defined as "a subjective assessment of the consequences of one's intended behaviour that reflects how much one likes or dislikes" (Kumar & Das, 2019:3). This means that a demonstration of any behaviour is mostly motivated by the attitude towards that behaviour. This is only true if the behaviour is not elicited under duress. Several studies have revealed a positive and significant influence of ATB on the EIs of students (for example, Saraih et al., 2018; Kumar & Das 2019). Hence, this study hypothesizes that:

H5: There is a significant positive relationship between ATB and the EI.

2.4. Subjective Norm

It happens several times to people, as social beings, to consider what others would say about things they intend to do. In general, a normal person would suffer intense discomfort when thinking what they intend to do is generally unacceptable behaviour to society. This phenomenon is generally referred to as the "Subjective norm". Ajzen (1991) describes the SN as normative beliefs that people have concerning the approval or disapproval of others in relation to any behaviour that an individual intends to perform. Within the same guidelines, this study defines SN as the impact that others have on the decisions that one must make. SN has been affirmed by several studies in the past to having a significant predictive power on the EI of students. Some of these studies are those that were conducted by Engle et al., (2010), Soomro and Shah (2014) and Kim-Soon et al., (2016). Based on these reports, the following hypothesis was developed:

H6: There is a significant positive relationship between the SN and the EI.

2.5. Perceived Behavioural Control

PBC was added to the Theory of Reasoned Action (TRA) so that it could account for non-volitional behaviours as was previously presumed by the TRA (Ajzen, 1991). The central point here is that sometimes people may have high intentions of doing something, only to find that the success of the intended behaviour also depends on other factors, not in their direct control. For example, a prospective student may apply at a certain HEI with all relevant requirements for admission being met, but the final admission could also depend on the availability of space for the applicant and funds to pay the registration fees. PBC is formed by the combination of locus of control (beliefs that an individual has regarding the extent of control over events and outcomes) and SE (beliefs an individual has regarding the ability to perform tasks) (Ajzen, 2002; Ham et al., 2015). This claim is supported by Ajzen (2002) as he acknowledges that the PBC owes its origin to the work of Bandura (1977, 1989, 1997) on SE. Literature provides an existence of the relationship between

PBC and EI as well. Studies by Heuer and Kolvereid (2014), Kim-Soon et al. (2016) and Usman (2019) are some of the studies that confirmed a significant positive impact of PBC on the EI of the students. Based on these insights, the following hypothesis was formulated:

H7: There is a significant positive relationship between PBC and the EI.

3. RESEARCH METHODOLOGY

3.1. Research design

The quantitative research approach was followed in this study under deductive reasoning and a positivist paradigm. The quantitative research approach is defined as research that explains phenomena according to numerical data from a chosen sub-group of a population, which are analysed using mathematically based methods (Yilmaz, 2013; Maree & Pietersen, 2016). The rationale behind the adoption of the quantitative research method for this study is that it is suitable for generalising the results and examining the relationships between different variables (Yilmaz, 2013; Bryman et al., 2014; Eyisi, 2016), and the collection of data using structured questionnaire appears to be convenient for the study.

3.2. Sampling method

The major categories of sampling are the probability and non-probability sampling methods (Elfil & Negida, 2017). According to Elfil and Negida (2017), the probability sampling method is a method in which all subjects in the target population have a fair chance of being selected for the sample. Regarding the non-probability sampling method, Bryman et al. (2014) accentuate that it is more subject to human judgement, thus making some members of the target population more likely to be selected than others. Due to the inaccessibility of the class lists, the study followed the purposive sampling technique which is a non-probability sampling method. To minimise sampling bias in this study, data were collected from diverse qualification programmes. Data were collected from different classes of all the students that were enrolled for EE.

The sample size of the study was pecked at $n=400$. This was determined by exploring a literature review on determining the generally acceptable number of samples of previous studies that investigated the EI of students (e.g., Malebana, 2016; Matsheke & Dhurup, 2017; Kalitanyi & Bbenkele, 2019; Maziriri et al., 2019). A total of 420 questionnaires was distributed, and 413 were returned, of which 23 were discarded since some of the constructs were not fully answered, thus leaving 390 usable questionnaires. This resulted in a response rate of 93 percent of the total distributed questionnaires.

3.3. Research instrument

The measuring instrument utilised in this study comprised four main sections that had closed-ended questions. Section A provides the demographic profile of the participants and was aimed at gathering information on gender, age group, race, level of study and the field of study. Section B provides information on EE and is comprised of five statements to measure the construct. Section C was aimed at gathering data on the antecedents of the TPB, namely ATB, SN and PBC. The ATB construct comprised five statements, the SN had three statements and the PBC was composed of five statements.

3.4. Data collection

Quantitative research designs can be classified into two main classes, namely, the experimental designs and the non-experimental designs (Maree & Pietersen, 2016). According to Maree and Pietersen (2016), surveys are the most widely used non-experimental research designs. Surveys are arguably the best methods utilised to collect data and are defined as the collection of information from a sample of individuals by means of their responses to questions asked (Check & Schutt, 2012; Loseke, 2017). This study, therefore, utilised the cross-sectional survey in collecting data because data for the study were collected from respondents only once at a single point in time. The questionnaires were only handed out in a hard copy format. A letter explaining the main purpose of the study was attached to each questionnaire. This letter assured the respondents about the confidentiality of their responses. It also reminded the participants that they had the right not to participate in the study should they decide to do so at any time.

3.5. Data analysis

The empirical analysis of this study was performed using descriptive statistics, exploratory factor analysis (EFA), Pearson correlations and regression analysis. The objective of the descriptive analysis procedure was to examine the demographic profile of the respondents as well as the scale reliability and the mean scores of the study. The EFA procedure was performed to confirm if all measurement scales applied in the study were unidimensional. The Pearson correlation analysis was used to examine the linear association between the constructs while the regression analysis was used to test the hypotheses.

4. RESEARCH RESULTS

4.1. Demographic Profile of Respondents

The profile of students who participated in the study is indicated in Table 1.

Table 1. Demographic Profile of Respondents

| Variable | Category | Frequency | Percentage |
|------------------------------------|--------------------|-----------|------------|
| Gender | Male | 100 | 25.6 |
| | Female | 290 | 74.4 |
| | Total | 390 | 100 |
| Age group | 16-20 years | 107 | 27.4 |
| | 21-24 years | 196 | 50.3 |
| | 25-29 years | 70 | 17.9 |
| | 30-34 years | 11 | 2.8 |
| | 35 years and above | 6 | 1.5 |
| | Total | 390 | 100 |
| Race | Black | 387 | 99.2 |
| | White | 0 | 0 |
| | Indian | 0 | 0 |
| | Coloured | 3 | 0.8 |
| | Total | 390 | 100 |
| Level of study (TVET N-courses) | N1 | 1 | 0.3 |
| | N2 | 6 | 1.5 |

| Variable | Category | Frequency | Percentage |
|-------------------------------------|----------------------|-----------|------------|
| | N3 | 5 | 1.3 |
| | N4 | 105 | 26.9 |
| | N5 | 72 | 18.5 |
| | N6 | 56 | 14.4 |
| | Sub-total N-courses | 245 | 62.9 |
| Level of study (TVET NCV levels) | Level 1 | 0 | 0 |
| | Level 2 | 49 | 12.6 |
| | Level 3 | 43 | 11.0 |
| | Level 4 | 53 | 13.6 |
| | Level 5 | 0 | 0 |
| | Level 6 | 0 | 0 |
| | Sub-total NCV-levels | 145 | 37.1 |
| | Total | 390 | 100 |
| Field of study | Nated engineering | 0 | 0 |
| | Business Studies | 242 | 62.1 |
| | National Certificate | 148 | 37.9 |
| | Vocational | | |

Source: Own compilation

Table 1 shows that most of the respondents in the study were females amounting to 290 which constituted 74.4 percent while the male counterparts amounted to 100, constituting 25.6 percent. The largest age group of the respondents had 21-24 years, totalling 196 constituting 50.3 percent, followed by the age group from 16-20 years with a percentage of 27.4. In terms of race, most of the respondents were black, with a total of 381 thus constituting 99.2 percent, and only three coloureds were constituting 0.8 percent. Regarding the level of study in terms of the N-courses, most of the respondents were at N4, amounting to 105 thus constituting 26.9 percent, followed by N5 amounting to 72 constituting 18.5 percent and lastly, N6 with a total of 56 respondents thus constituting 14.4 percent. The NCV levels collectively amounted to 145, constituting only 37.1 percent of the entire respondents. Furthermore, most of the respondents were enrolled for Business Studies, constituting a percentage of 62.1 percent.

4.2.Descriptive analysis

Table 2. Reliability, mean scores, and standard deviation of the measuring instrument

| Constructs | Cronbach Alpha coefficient | Mean | Standard deviation |
|---|----------------------------|------|--------------------|
| Entrepreneurship Education | 0.828 | 5.53 | 1.410 |
| Attitude Towards Behaviour | 0.864 | 5.74 | 1.354 |
| Subjective Norm | 0.828 | 4.70 | 1.745 |
| Perceived Behavioural Control | 0.817 | 4.82 | 1.560 |
| Entrepreneurial Intention | 0.915 | 5.58 | 1.500 |
| Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Somewhat disagree, 4 = Neutral, 5 = Somewhat agree, 6 = Agree and 7 = Strongly agree. | | | |

Source: Own compilation

In terms of the reliability of the scale, the analysis shows that the measuring scale was indeed reliable since the Cronbach Alpha values are all above 0.7, they are considered acceptable by Pallant (2007). Regarding the mean scores, EE had a mean score of $\bar{x} = 5.53$, revealing that the selected TVET's EE demonstrated a higher level of EE. In terms of the ATB with the mean score of $\bar{x} = 5.74$, the students show an inclination towards the creation of new businesses. With regards to SN with the mean score of $\bar{x} = 4.70$, the students perceive that the closest people to them think they should start businesses. Regarding the PBC with an average mean score of $\bar{x} = 4.82$, the students perceive that they do have the necessary capabilities to start and manage new businesses. Lastly, with the average mean score of $\bar{x} = 5.58$ in terms of EI, the students demonstrate a willingness to start their businesses.

4.3. Exploratory factor analysis

The statements of the constructs within the measuring instrument must get tested to determine whether they correlate in terms of the variable they intend to measure. This can be done by performing the EFA procedure. Factor analysis plays a crucial role in determining the internal validity of the measuring instrument and the testing of the hypotheses (Atkinson et al., 2011). However, before EFA is conducted, it is important to be certain whether the data to be analysed are factorable. The factorability of the data can be investigated by the use of Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (Cleff, 2014). A significant p-value less than 0.05 of the Bartlett's test of sphericity indicates that the variables do correlate and a KMO value of greater than 0.5 indicates that the sample used in the study was large enough to be factorised (Williams et al., 2010). The results of the Bartlett's test for all constructs of this study were significant at $p = 0.000$, indicating that the data were suitable for factor analysis. Also, the KMO results for all constructs were higher than the recommended 0.5 minimum threshold, showing that the sample size used in the study was adequate for factor analysis.

Upon the application of the EFA procedure to EE, ATB, SN, PBC and IR constructs, the results proved that the constructs were indeed measuring what they were intended to measure except for SN4: "I do not care about what people who are important to me think when I decide to be an entrepreneur", that had lower than the 0.5 minimum threshold. It was then removed from the scale.

Table 3 presents the results of the performed EFA analysis.

Table 3. Exploratory factor analysis results

| Construct | Items | Communalities | Factor loadings | Eigenvalue | Percentage variance explained |
|-----------|-------|---------------|-----------------|------------|-------------------------------|
| EE | EE1 | 0.355 | 0.596 | 2.988 | 60.000 |
| | EE2 | 0.664 | 0.815 | | |
| | EE3 | 0.638 | 0.799 | | |
| | EE4 | 0.671 | 0.819 | | |
| | EE5 | 0.661 | 0.813 | | |
| ATB | ATB1 | 0.631 | 0.794 | 3.281 | 66.000 |
| | ATB2 | 0.685 | 0.828 | | |
| | ATB3 | 0.676 | 0.822 | | |
| | ATB4 | 0.712 | 0.844 | | |
| | ATB5 | 0.578 | 0.760 | | |

| Construct | Items | Communalities | Factor loadings | Eigenvalue | Percentage variance explained |
|-----------|-------|---------------|-----------------|------------|-------------------------------|
| SN | SN1 | 0.719 | 0.848 | 2.235 | 75.000 |
| | SN2 | 0.734 | 0.857 | | |
| | SN3 | 0.782 | 0.884 | | |
| PBC | PBC1 | 0.545 | 0.739 | 2.926 | 59.000 |
| | PBC2 | 0.611 | 0.782 | | |
| | PBC3 | 0.701 | 0.837 | | |
| | PBC4 | 0.439 | 0.434 | | |
| | PBC5 | 0.629 | 0.686 | | |
| EI | EI1 | 0.627 | 0.792 | 3.774 | 81.000 |
| | EI2 | 0.792 | 0.890 | | |
| | EI3 | 0.772 | 0.879 | | |
| | EI4 | 0.798 | 0.893 | | |
| | EI5 | 0.785 | 0.886 | | |

Source: Own compilation

As revealed in Table 3, five factors were extracted from the EFA procedure for the prediction of the EI of the students. the first construct was labelled EE. This construct consisted of five items (EE1 – EE5), had an eigenvalue of 2.988, and contributed 60 percent of the total variance explained for the EI predictors scale. The second construct was labelled ATB and comprised five items (ATB1 – ATB 5). This construct had an eigenvalue of 3.281 and contributed 66 percent of the variance. The third construct was labelled as SN and consisted of three items. It had an eigenvalue of 2.235 and contributed 75 percent of the total variance. The fourth construct was labelled PBC and was composed of five items (PBC1 -PBC5). This construct had an eigenvalue of 2.926 and contributed 59 percent of the variance. The factor loadings of all the constructs showed that the items in each construct indeed measured what was intended to be measured.

4.4.Assumption of normality of data

Various statistical analysis techniques such as correlations and regression assume the principle of normality thus rendering any tests for normality crucial (Mishra et al., 2019). Tests for normality should, therefore, be taken as a prerequisite for most statistical tests (ibid.). The current study made use of the D'Argostino's K-squared test which is the normality test based on descriptive measures, namely, skewness and kurtosis. The skewness and kurtosis values for all the constructs of this study are presented in Table 4.

Table 4: Assessment of Data Normalcy

| Research Construct | Sample Size (n) | Skewness | | Kurtosis | |
|--------------------|-----------------|-----------|------------|-----------|------------|
| | | Statistic | Std. Error | Statistic | Std. Error |
| EE | 390 | -1.438 | 0.124 | 1.297 | 0.247 |
| ATB | 390 | -1.180 | 0.124 | 1.497 | 0.247 |
| SN | 390 | -0.715 | 0.124 | -0.490 | 0.247 |
| PBC | 390 | -0.647 | 0.124 | -0.097 | 0.247 |
| EI | 390 | -1.184 | 0.124 | 0.919 | 0.247 |

EE = Entrepreneurship education, ATB = Attitude towards behaviour, SN = Subjective norm, PBC = Perceived behavioural control, EI = Entrepreneurial intention.

Source: Own compilation

As shown in Table 4, all the values were within the generally acceptable thresholds. All skewness values for the scales were between the range of -2 and +2, and the kurtosis values were within the prescribed range of -3 and +2 (Bono et al., 2020). Additionally, an analysis of the standard deviations in all results shows values closer to one another. This implies that values are not widely spread from one another since the dispersion from the mean is minimal, thereby confirming that the data were normally distributed.

4.5.Results of the correlation analysis

Pearson correlations were applied in this study because the data were normally distributed, making parametric statistics suitable for application in the current analysis (Rebekić et al., 2015). The interpretation of the correlation coefficient values was as follows: +1 and -1= perfect; +0.9 and -0.9 = strong; +0.8 and -0.8 = strong; +0.7 and -0.7 = strong; +0.6 and -0.6= moderate; +0.5 and -0.5= moderate; +0.4 and -0.4= moderate; +0.3 and -0.3= weak; +0.2 and -0.2= weak; +0.1 and -0.1= weak and 0=none (Akoglu, 2018). The positive values indicate that the association between the variables is positive, thus taking the same direction, whereas those that are negative take opposite directions.

Table 5. Pearson’s correlation results

| Factors | EE | ATB | SN | PBC | EI |
|---------|---------|---------|---------|---------|-------|
| EE | 1.000 | | | | |
| ATB | 0.457** | 1.000 | | | |
| SN | 0.287** | 0.432** | 1.000 | | |
| PBC | 0.404** | 0.525** | 0.455** | 1.000 | |
| EI | 0.438** | 0.675** | 0.491** | 0.464** | 1.000 |

Source: Own compilation

The strongest correlation ($r=0.675$; $p=0.00$) is observed between ATB and EI of the students, while the weakest is between EE and SN ($r=0.287$; $p=0.00$). Nonetheless, all constructs demonstrated a positive correlation among themselves as shown in Table 5.

4.6.Regression analysis

The regression analysis was performed to test for predictive relationships between the constructs considered in the study. Regression analysis is a statistical procedure that estimates the predictive relationships among the variables (Petersen & Maree, 2016). For this study, both bivariate and multiple regression analyses were conducted. In the case where multiple regression analysis was conducted, the predictor variable was entered simultaneously. The results of the regression analysis are reported in Tables 6, 7, 8, 9 and 10.

Table 6: Regression Model 1 Summary: entrepreneurship education and entrepreneurial intention for the students

| Model summary | Beta | T | Sig. |
|-------------------------------|-------|-------|--------|
| Dependent variable- EI | | | |
| EE | 0.438 | 9.607 | 0.000* |
| $R^2 =0.192$ *sig at $p<0.05$ | | | |

An analysis of Regression Model 1 shows that EE as the independent variable is statistically significant in predicting the EI of the students ($\beta = 0.438$; $t = 9.607$; $p = 0.000$). Based on these results, $H1$ ‘There is a significant positive relationship between EE and EI’, is thus supported.

Table 7: Regression Model 2 Summary: entrepreneurship education and attitude towards behaviour for the students

| Model summary Dependent variable- ATB | Beta | T | Sig. |
|---|-------|--------|--------|
| EE | 0.457 | 10.118 | 0.000* |
| Adjusted R ² =0.207 *sig at p<0.05 | | | |

An analysis of Regression Model 2 shows that EE as the independent variable is statistically significant in predicting the ATB of the students ($\beta = 0.457$; $t = 10.118$; $p = 0.000$). $H2$ ‘There is a significant positive relationship between EE and ATB’, has been proven true by these results.

Table 8: Regression Model 3 Summary: entrepreneurship education and subjective norm for the students

| Model summary Dependent variable- SN | Beta | T | Sig. |
|---|-------|-------|--------|
| EE | 0.287 | 5.894 | 0.000* |
| Adjusted R ² =0.080 *sig at p<0.05 | | | |

An analysis of Regression Model 3 shows that EE as the independent variable is statistically significant in positively predicting the SN of the students ($\beta = 0.287$; $t = 5.894$; $p = 0.000$). These results also prove $H3$ ‘There is a significant positive relationship between EE and the SN’ to be true.

Table 9: Regression Model 4 Summary: entrepreneurship education and perceived behavioural control for the students

| Model summary Dependent variable- PBC | Beta | T | Sig. |
|---|-------|-------|--------|
| EE | 0.404 | 8.706 | 0.000* |
| Adjusted R ² =0.161 *sig at p<0.05 | | | |

An analysis of Regression Model 4 shows that EE as the independent variable is statistically significant in predicting the PBC of the students ($\beta = 0.404$; $t = 8.706$; $p = 0.000$). These results support $H4$ ‘There is a significant positive relationship between EE and PBC’.

Table 10: Regression Model 5 Summary: antecedents of the TPB and the entrepreneurial intentions for the students

| Model summary Dependent variable- EI | Beta | T | Sig. |
|---|--------|--------|--------|
| ATB | 0.555 | 11.730 | 0.000* |
| SN | 0.184 | 4.326 | 0.000* |
| PBC | -0.035 | -0.665 | 0.506 |
| Adjusted R ² =0.525 *sig at p<0.05 | | | |

An analysis of Regression Model 4 shows that EE as the independent variable is statistically significant in predicting the PBC of the students ($\beta = 0.457$; $t = 10.118$; $p = 0.000$). These results support *H5* 'There is a significant positive relationship between ATB and the EI' and *H6* 'There is a significant positive relationship between the SN and the EI' while rejecting *H7* 'There is a significant positive relationship between PBC and the EI'.

5. CONCLUSION AND MANAGERIAL IMPLICATIONS

The average mean scores of the constructs revealed that EE is perceived by students at the selected TVET college to be effective in changing and enhancing their attitude towards thinking of starting their businesses. They also perceive that support from people close to them like family and friends is important and they would rather see them starting their businesses. The EE has been also very crucial in enhancing their capabilities in starting and managing businesses of their own. All the factors under investigation in this study were found to be statistically significant for the improvement of the EI of the students except for PBC.

EE has been found by various studies in the past to have abilities to change and enhance the EIs of students. Nonetheless, there are limited control measures put in place by policymakers to ensure that proper teaching methods that are in line with effective EE, are adhered to by the HEIs. The study recommends that the higher education authorities should be the sole custodian of the EE curriculum for all HEIs. Furthermore, every module taught at HEIs should have a section in which entrepreneurial opportunities that are in line with the module taught are discussed. This might enlighten the students that viable entrepreneurial ideas can be generated in almost any field in which one is operating.

REFERENCES

- Ahmed, T., Chandran, V.G.R. and Klobas, J. (2017). Specialized entrepreneurship education: does it really matter? Fresh evidence from Pakistan. *International Journal of Entrepreneurial Behavior & Research*, 23(1), 4-19.
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the Theory of Planned Behavior. *Journal of Applied Social Psychology*, 32(4), 665-68.
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Akoglu, H. (2018). User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*, 18(3), 91-93.
- Aloulou, W.J. (2016). Predicting entrepreneurial intentions of final year Saudi university business students by applying the theory of planned behaviour. *Journal of Small Business and Enterprise Development*, 23(4), 1142-1164.
- Atkinson, T.M., Rosenfeld, B.D., Sit, L., Mendoza, T.R., Fruscione, M., Lavene, D., Shaw, M., Li, Y., Hay, J., Cleeland, C.S. and Scher, H.I. (2011). Using confirmatory factor analysis to evaluate construct validity of the Brief Pain Inventory (BPI). *Journal of Pain and Symptom Management*, 41(3), 558-565.

-
- Baptista, R. and Naia, R. (2015). Entrepreneurship education: A selective examination of the literature. *Foundations and Trends in Entrepreneurship*, 11(5), 337-426.
- Bird, M. and Wennberg, K. (2016). Why family matters: the impact of family resources on immigrant entrepreneurs' exit from entrepreneurship. *Journal of Business Venturing*, 31: 687-704.
- Boubker, O., Arroud, M. and Ouajdouni, A. (2021). Entrepreneurship education versus management students' entrepreneurial intentions. A PLS-SEM approach. *The International Journal of Management Education*, p.100450. Retrieved <https://reader.elsevier.com/reader/sd/pii/S1472811720304171?token=E8670EE087539E53E833256D070C164424C2AE4FD6689F212850F536EC55C20BD012A14416D03C5AF4B34BB2F99A3F19>.
- Bryman, A., Bell, E., Hirschsohn, P., Dos Santos, A., Du Toit, J., Masenge, A., Van Aardt, I. and Wagner, C. (2014). *Research methodology: business management contexts*. Cape Town: Oxford University Press South Africa.
- Check, J. and Schutt, R.K. (2012). Survey research. In Check, J. & Schutt, R.K. (Eds.). *Research methods in education*. (pp. 159–185). Thousand Oaks, CA: Sage Publications.
- Chukuakadibia, E.E., De Villiers, S. and Pinto, J.C. (2016). Study streams and student entrepreneurial intention. *Acta Universitatis Danubius: Oeconomica*, 12(5), 251-265.
- Cleff, T. (2014). *Exploratory data analysis in business and economics: an introduction to SPSS, Stata and Excel*. Springer: Heidelberg.
- Ebewo, P.E., Shambare, R. and Rugimbana, R. (2017). Entrepreneurial intentions of Tshwane University of Technology, Arts and Design students. *African Journal of Business Management*, 11(9), 175-182.
- Elfil, M. and Negida, A. (2017). Sampling Methods in Clinical Research: An Educational Review. *Emergency*, 5(1), 52-54.
- Engle, R.L., Dimitriadi, N., Gavidia, J.V., Schlaegel, C., Delanoe, S., Alvarado, I., He, X., Buame, S. and Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behavior & Research*, 16(1), 35-57.
- Eyisi, D. (2016). The usefulness of qualitative and quantitative approaches and methods in researching problem-solving ability in science education curriculum. *Journal of Education and Practice*, 7(15), 91-100.
- Faria, J.R., Cuestas, J.C. and Mourelle, E. (2010). Entrepreneurship and unemployment: a nonlinear bidirectional causality? *Economic Modelling*, 27:1282-1291.
- Fatoki, O.O. (2010). Graduate entrepreneurial intention in South Africa: motivations and obstacles. *International Journal of Business and Management*, 5(9), 87-98.
- Fayolle, A., Gailly, B. and Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European Industrial Training*, 30(9), 701-720.
-

-
- Fellnhofer, K. (2017). Entrepreneurship education revisited: perceived entrepreneurial role models increase perceived behavioural control. *International journal of learning and change*, 9(3), 260-283.
- Franco, M., Haase, H. and Lautenschläger, A. (2010). Students' entrepreneurial intentions: an inter-regional comparison. *Education and Training*, 52(4), 260-275.
- Gerba, D. (2012). Impact of entrepreneurship education on entrepreneurial intentions of business and engineering students in Ethiopia. *African Journal of Economic and Management Studies*, 3(2), 258-277.
- Ham, M., Jeger, M. and Frajman Ivković, A. (2015). The role of subjective norm in forming the intention to purchase green food. *Economic research-Ekonomska Istraživanja*, 28(1), 738-748.
- Hattab, H.W. (2014). Impact of entrepreneurship education on entrepreneurial intentions of university students in Egypt. *The Journal of Entrepreneurship*, 23(1), 1-18.
- Henley, A., Contreras, F., Espinosa, J.C. and Barbosa, D. (2017). Entrepreneurial intentions of Colombian business students: Planned behaviour, leadership skills and social capital. *International Journal of Entrepreneurial Behaviour & Research*, 23(6), 1017-1032.
- Herrington, M. and Kew, P. (2016). *Global Entrepreneurship Monitor (2015/2016). South Africa Report: Is South Africa heading for an economic meltdown?* Cape Town: Dune development for New Enterprise.
- Herrington, M., Kew, P. and Mwangi, A. (2017). *Global Entrepreneurship Monitor (2016/2017). South Africa report: can small businesses survive in South Africa?* Cape Town: Dune development for New Enterprise.
- Heuer, A. and Kolvereid, L. (2014). Education in entrepreneurship and the Theory of Planned Behaviour. *European Journal of Training and Development*, 38(6), 506-523.
- Isaacs, E., Visser, K., Friedrich, C. and Brijlal, P. (2007). Entrepreneurship education and training at the Further Education and Training (FET) level in South Africa. *South African Journal of Education*, 27(4), 613-629.
- Iwu, C.G., Ezeuduji, I., Eresia-Eke, C. and Tengeh, R. (2016). The entrepreneurial intention of university students: the case of a university of technology in South Africa. *Acta Universitatis Danubius. (Economica)*, 12(1), 164-181.
- Kalitanyi, V. and Bbenkele, E. (2019). Measuring university students' perceptions about the role of self-efficacy on entrepreneurial intentions in Cape Town. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 5(2), 214-232.
- Kim-Soon, N., Ahmad, A.R. and Ibrahim, N.N. (2016). Theory of planned behavior: undergraduates' entrepreneurial motivation and entrepreneurship career intention at a public university. *Journal of Entrepreneurship: Research & Practice*, 1-14.
-

-
- Kumar, S. and Das, S. (2019). An extended model of theory of planned behaviour: Entrepreneurial intention, regional institutional infrastructure and perceived gender discrimination in India. *Journal of Entrepreneurship in Emerging Economies*, 11(3), 369-391.
- Kusmintarti, A., Thoyib, A., Ashar, K. and Maskie, G. (2014). The relationships among entrepreneurial characteristics, entrepreneurial attitude, and entrepreneurial intention. *IOSR Journal of Business and Management*, 16(6), 25-32.
- Küttim, M., Kallaste, M., Venesaar, U. and Kiis, A. (2014). Entrepreneurship education at university level and students' entrepreneurial intentions. *Procedia-Social and Behavioral Sciences*, 110, 658-668.
- Lackéus, M. (2017). Does entrepreneurial education trigger more or less neoliberalism in education? *Education and Training*, 59(6), 635-650.
- Loseke, D.R. (2017). *Methodological thinking: Basic principles of social research design*. Los Angeles: Sage Publications.
- Lüthje, C. and Franke, N. (2003). The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management*, 33(2), 135-147.
- Malebana, M.J. (2016). Does entrepreneurship education matter for the enhancement of entrepreneurial intention? *Southern African Business Review*, 20(1), 365-387.
- Maree, K. and Pietersen, J. (2016). The quantitative research process. In Maree, K. (Ed.). *First Steps in Research*. 2nd ed. (pp. 161-172). Pretoria: Van Schaik Publishers.
- Matsheke, O. and Dhurup, M. (2017). Entrepreneurial-related programmes and students' intentions to venture into new business creation: finding synergy of constructs in a University of Technology. *Science, Technology and Society*, 22(2), 259-283.
- Maziriri, E.T., Maramura, T.C. and Nzewi, O.I. (2019). Determinants of entrepreneurial intention among Generation Y students within the Johannesburg Metropolitan area of South Africa. *African Journal of Business and Economic Research*, 14(3), 111-134.
- Michelle, K. and Tendai, C. (2016). The association of entrepreneurship education and entrepreneurial intention among university students in the Eastern Cape Province of South Africa. *International Journal of Educational Sciences*, 12(3), 200-211.
- Mishra, P., Pandey, C.M., Singh, U., Gupta, A., Sahu, C. and Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, 22(1), 67-72.
- Muofhe, N.J. and Du Toit, W.F. (2011). Entrepreneurial education's and entrepreneurial role models' influence on career choice. *South African Journal of Human Resource Management*, 9(1), 1-15.
- Musetsho, T.R. and Lethoko, M.X. (2017). An evaluative study on the effect of entrepreneurial education curriculum on students at the University of Venda, South Africa. *The Independent Journal of Teaching and Learning*, 12(1), 74-89.
-

-
- Nabi, G., Holden, R. and Walmsley, A. (2010). Entrepreneurial intentions among students: towards a re-focused research agenda. *Journal of Small Business and Enterprise Development*, 17(4), 537-551.
- Odora, R.J. (2015). Integrating product design and entrepreneurship education: A stimulant for enterprising design and engineering students in South Africa. *Procedia Technology*, 20, 276-283.
- Padilla-Meléndez, A., Fernández-Gámez, M.A. and Molina-Gómez, J. (2014). Feeling the risks: effects of the development of emotional competences with outdoor training on the entrepreneurial intent of university students. *International Entrepreneurship and Management Journal*, 10(4), 861-884.
- Rebekić, A., Lončarić, Z., Petrović, S. and Marić, S. (2015). Pearson's or Spearman's correlation coefficient-which one to use? *Poljoprivreda (Osijek)*, 21(2), 47-54.
- Saraih, U.N., Aris, A.Z.Z., Mutalib, S.A., Ahmad, T.S.T. and Amlus, M.H. (2018). Examining the relationships between attitude towards behaviour, subjective norm and entrepreneurial intention among engineering students. [Online]. retrieved: https://www.matec-conferences.org/articles/mateconf/pdf/2018/09/mateconf_mucet2018_05011.pdf.
- Sesen, H. (2013). Personality or environment? A comprehensive study on the entrepreneurial intentions of university students. *Education and Training*, 55(7), 624-640.
- Skosana, B.V. (2014). Entrepreneurial intentions of students at Further Education and Training colleges in South Africa. *South African Journal of Higher Education*, 28(4), 1398-1413.
- Solesvik, M.Z. (2013). Entrepreneurial motivations and intentions: investigating the role of education major. *Education and Training*, 55(3), 253-271.
- Sondari, M.C. (2014). Is entrepreneurship education really needed?: Examining the antecedent of entrepreneurial career intention. *Procedia-Social and Behavioral Sciences*, 115, 44-53.
- Soomro, B.A. and Shah, N. (2015). Developing attitudes and intentions among potential entrepreneurs. *Journal of Enterprise Information Management*, 28(2), 304-322.
- Statistics South Africa. (2017). *Quarterly labour force survey*. Retrieved from <http://www.statssa.gov.za/?p=10658>.
- Steenekamp, A.G., Van der Merwe, S.P. and Athayde, R. (2011). An investigation into youth entrepreneurship in selected South African secondary schools: An exploratory study. *Southern African Business Review*, 15(3), 46-75.
- Tshikovhi, N. and Shambare, R. (2015). Entrepreneurial knowledge, personal attitudes, and entrepreneurship intentions among South African Enactus students. *Problems and Perspectives in Management*, 13(1), 152-158.
- Usman, B. (2019). Understanding the entrepreneurial intention among international students in Turkey. *Journal of Global Entrepreneurship Research*, 9(1), 1-21.
-

Van Giesen, R.I., Fischer, A.R., Van Dijk, H. and Van Trijp, H.C. (2015). Affect and cognition in attitude formation toward familiar and unfamiliar attitude objects. *PloS one*, 10(10), 1-14.

Vosloo, C., Vosloo, P. and Antonites, A. (2018). An entrepreneurship education, training and support framework for South African architects. *South African Journal of Higher Education*, 32(5), 289-313.

Welsha, D.H.B., Tullar, W.L. and Nemati, H. (2016). Entrepreneurship education: process, method, or both? *Journal of Innovation & Knowledge*, 1, 125-132.

Williams, B., Onsman, A. and Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8(3), 1-13.

Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education*, 48(2), 311-325.

Zhang, F., Wei, L., Sun, H. and Tung, L.C. (2019). How entrepreneurial learning impacts one's intention towards entrepreneurship: A planned behavior approach. *Chinese Management Studies*, 13(1), 146-170.

SSIRC 2023-173**DIGITALISATION AND HUMAN CAPITAL DEVELOPMENT NEXUS IN THE SADC REGION****O.O. David**

North-West University, South Africa

M. Maharaj

North-West University, South Africa

ABSTRACT

The continent of Africa has traditionally faced challenges in terms of networking capabilities, internet usage rates, and access to computing technologies compared to the rest of the world. These issues, combined with severe inequalities among different populations, suggest a lack of economic development in Sub-Saharan Africa. Therefore, the primary objective of this study was to investigate the nexus between increased access to ICTs and associated technologies and the improvement of lives and human capital in the SADC region. The study employed a quantitative analytical methodology using secondary panel-based data. The framework of inclusive development informed the choice of indicators best suited to fulfil the study's objective; the chosen indicators focused on education enrolment, ICT penetration and health outcomes. The study used a panel OLS regression to construct an econometric model demonstrating the relationship between ICTs and human capital development primarily through education, for the region. The empirical results revealed that there is mutual causality between the ICT index and human capital development in the SADC region. Additionally, the study observed that the ICT index exerts pressure on human capital development in both the short- and long run in the region. Considering that Africa is on track to becoming the most populous continent post-2050, the SADC developmental region presents vast potential for economic growth and human capital development that could transform the area into a global economic powerhouse. If governments, industries, and private investment carefully plan and invest in ICT and networking infrastructure while keeping the associated costs to the customer/end-user as low as possible, overall, the potential for ICT-related human capital growth and expansion remains both positive and vast.

KEYWORDS: ICT (information and communication technology); human capital development; panel data econometric analysis; SADC

1. INTRODUCTION

The extent to which individuals and households have access to, and ability to make use of information and communication technologies (ICTs), such as the internet, mobile phones, computers, and broadband services in a region or designated zone such as a country or continent can be described as the ICT penetration level for that area. The speed of development, deployment, and ease of access to ICTs have demonstrated the capability to increase the levels of education and ultimately improve the level of human capital. Moreover, ICTs have proven the capability to raise the standard of living directly and indirectly for individuals and communities that are exposed to these new technologies and learning methods/tools.

The World Bank (2023a) states that a major problem with human capital development in Sub-Saharan Africa is that the levels of ICT penetration and percentage of individuals who have adequate internet access and actively use these services vary significantly between countries and regions. The following statistical figures provide a general overview to support the assertion made by The World Bank (2023a):

- The percentage of the population that has access to the internet for the entire Sub-Saharan region of Africa is a startling 29% (World Bank, 2023a).
- This figure is misleading as the spread and distribution of ICT are heavily skewed and uneven, e.g., the Seychelles (79%), South Africa (70%), Mauritius (65%), and Botswana (64%) all enjoy high ICT penetration rates with robust network infrastructure and high levels of internet literacy and usage over mobile and fibre broadband and telecommunications networks. At the other end of the spectrum, countries such as Eritrea (1%), Somalia (2%), Uganda (6%) and South Sudan (7%) suffer major deprivations and lack of quality infrastructure, investment and political stability resulting in penetration levels of less than 8% of each country's entire population having reliable, available access to the internet (World Bank, 2023a). The Sub-Saharan region is characterised by significant disparity pertaining to the level of ICT penetration rates, while some countries enjoy high levels of ICT penetration rates, others continue to lag because of factors such as a lack of adequate infrastructure, insufficient ICT investments and political instability. Countries such as Eritrea (1%), Somalia (2%), Uganda (6%), and South Sudan (7%) are some of the countries that are on the receiving end of the digital inequality observed in the region, with each country recording figures less than 8% in terms of the percentage of the population that has internet access (World Bank, 2023a).
- According to The World Bank (2023b), ICT penetration rates for the rest of the world contrast starkly to that of Africa,
 - Global internet usage and penetration rates – 60% as of 2020 (World Bank, 2023b),
 - North America – 91%,
 - The European Union – 85%,
 - South Asia – 39%
- These are all at levels of internet usage that are currently higher than that of Sub-Saharan Africa.

It has been theorised by economists that increasing levels of ICT penetration rates in Africa will help lessen and possibly close the divide in a faster and more efficient manner than previous methods such as foreign aid. According to Frankfurter *et al.* (2020):

- Household internet access for Sub-Saharan Africa is much lower than commonly believed,
- Access rates are particularly low and sub-standard in nature for rural and lower-income households.
- Many people in Sub-Saharan Africa access the internet or make use of ICTs using mobile technologies and devices exclusively rather than using a home computer or laptop/workstation.

- The study also noted that an increase in 10% of a country's access to ICT and related technologies was estimated to increase said country's GDP per capita by up to 1.35% through an increase in economic and human development (i.e., skills, training, and education). (N.B. rough calculation, not definitive quantification.)

The Southern African Development Community (SADC), which is a regional economic bloc made up of 16 neighbouring countries is founded on the primary objective of achieving economic development, peace, and security, as well as improving growth and poverty alleviation and enhancing the living standard and quality of life of the persons of Southern Africa through regional integration (Southern African Development Community, 2023b).

Key to the achievement of these goals is the recognition and understanding of the role that the successful development of stable, secure, robust, and efficient modern ICT networks and infrastructure can have on the present and future regarding regional integration and economic growth and development for the region, and all its members (Southern African Development Community, 2023c). Therefore, the SADC has drafted a Declaration (official policy framework) on Information and Communication Technologies to establish coherent policies concerning ICTs for all its member states (Southern African Development Community, 2023c) with a specific purpose/goal of bridging the digital divide between Southern Africa and the rest of the world.

The Declaration also specifically highlights the importance of high-quality telecommunications infrastructure required to advance the sector (Southern African Development Community, 2023c). It also acknowledges a special note for remote and rural areas, underprivileged urban areas, institutions of learning, and other communities of special interest and benefit to the region when it comes to the deployment of new infrastructure in the future (SADC, 2023c).

The following statistical notes provide a rough idea of the level of ICT and related technologies in the region (SADC, 2023c):

- Approximately 60% of the population has adopted mobile technology, with regional ranges from 20 to 100%, though only 6% of total voice subscribers have fixed lines.
- Only 4% of SADC residents are internet users, although usage varies widely between member states – from 1% in the Democratic Republic of Congo to 40% in the Seychelles.
- Fewer than 25% of borders between neighbouring SADC member states exchange internet traffic, the rest exchanging outside the region.

The SADC has stated the need to focus on infrastructure to ensure that broadband connections with open-access fibres exist between all member states and their major cities, along with at least one internet exchange point in each member state, a current weakness and inefficiency of the trade region.

SADC members have also stated that it must ensure that the public has affordable, high-speed internet access, potentially through terrestrial wireless or satellite technology in remote areas, while also ensuring that information and communication technology connections exist from SADC member states to the rest of Africa and the world, whether through terrestrial and undersea links or satellites (SADC, 2023c). Research into the impact of ICT on development in the region, both its proliferation and penetration into the region, together with its overall effect on human capital development provide a vital area of concern that could warrant scope for further study and research.

Research problem

While the amount of raw data concerning economic development within the African continent is vast, it seems more disparate, and less collated in comparison to the troves of research and journal publications written specifically about Europe, the Americas, and Asia that can be found with a simple internet search concerning those regions. A distinctly smaller subset of research focused on ICT's impact on education and development in Africa and Sub-Saharan Africa comes up in searches of academic journals and internet searches. A research gap seems to exist for the SADC region, with research papers and journal articles specifically regarding the topic few and far between.

There also seems to be a dearth of statistics and research data on the impact of information and communications technology (ICT) and its resultant effects specifically regarding education and human capital development in the SADC region and trade community, which is a vital and substantial trade zone for Sub-Saharan Africa. Research in this area and field of development economics seems viable and necessary, with the following research question/s needed to be asked.

Problem statement

The African continent is claimed to lag the world in terms of economic growth and development, and a digital divide exists between it and the rest of the world, but what about the SADC region? Has the effect of new ICTs and expanding networking and digital nexus been an entirely positive and beneficial one on education and the development of human capital in this trade community and geographical region? The literature, and amount of empirical and statistical research information on how the digital nexus and increasing levels of ICTs have positively impacted the member countries of SADC over the last 20 to 30 years needs to be added to.

Research questions:

- What has the effect of new information and communications technologies (ICTs) and expanding networking and digital nexus been on education and the development of human capital in the SADC trade community?
- If the African continent and the Sub-Saharan region do lag the rest of the world and a digital divide does exist between it and the rest of the world, is the situation the same for all of Africa? What about the SADC region?
- Has the impact been an all-round positive one, enabling growth and increasing the quality of life for general citizens of the region?
- What will the net effect be if costs of ICTs are lowered and access to ICTs and broadband technologies becomes more equitable?

2. LITERATURE REVIEW

The theoretical and academic discourse of economic growth and development pays lip service to two broad perspectives, namely: (a) the fight against poverty and (b) the long-term analysis of economic and social development (Myint, 1980). The former is concerned with the short-term dynamics of socio-economic issues, while the latter is more concerned with the long-term dynamics of socio-economic issues. The concept of contemporary economic growth and

development is well-documented in the academic research landscape; the research works of Landes (1999) and Maddison (2001) are some of the early literatures that continues to inform modern studies. In spite of the plethora of theoretical and empirical literature on the discourse of economic development, there is still a lack of a uniform, universal, and accepted definition of economic development.

According to Kuznets (1966), the study of economic development should not be limited to just the economic sphere because economic development is much more than growth in GDP per capita alone. Kuznets (1966) argued further that economic development should also refer to growth that is accompanied by qualitative changes in the structure of production, manufacturing and employment, or development as structural change. Similarly, Szirmai (2015) echoed the idea of economic development that transcends the traditional perspective of economic or financial growth, to a more multidimensional concept that includes poverty, welfare, wealth distribution as well as access to ICTs. As indicated previously, there have been many studies on economic development and its determinants; however, this study will only review the existing literature on the nexus between human development and ICT.

The research work of Jezic *et al.* (2022) focused on the links between ICT and development in developed and developing nations, trying to address the relationship between ICTs, enrolment in tertiary education, and human development in countries that vary in stages of economic development and with varying income groups, using static panel regression data analysis. The study showed the significant and positive effects of increased ICTs and enrolment in tertiary education on levels of human development across all countries and across all income groups. The dynamic analysis with a GMM estimator, however, showed significant and positive effects only for upper-middle-income countries, together with a significant lagged value for human development on the HDI at that time. Of special relevance to this study and research area in general was that the data points toward ICTs and related technologies have a decidedly strong and positive effect on all four income groups and stages of development, with the effects being significantly higher in less developed or poorer countries (Jezic *et al.*, 2022). Similarly, Iqbal *et al.* (2019) reported a positive and statistically significant impact of ICT on human development; the study used mobile cellular phone usage as an indicator to measure ICT access. The findings of these studies conform to the existing economic theory and literature.

On the same strand, the recent study by Bayar *et al.* (2023) examined the link between ICT and economic development, with a key focus on human development indicators. The study was a panel analysis of developing and transition economies in the EU region. Bayar *et al.* (2023) ascribed the increase in ICT access and usage to the advent of globalisation and liberalisation of the telecommunication sector. In addition, the empirical findings disclosed a statistically significant impact of ICT on human development only in the short run, the lack of significance of ICT on human capital development in the long run was attributed to the idea that EU countries are already characterised by high levels of human capital. Therefore, their study may not be directly comparable or relevant to outcomes from an African and SADC developing nation perspective.

There is still a dearth of empirical literature conducted within the context of African countries; nonetheless, there are few studies that have been conducted to provide a general overview of the

impact of ICT on economic development (see Ponelis & Holmner, 2015; Oluwatobi & Olurinola, 2015; Adeleye & Eboagu, 2019; David & Grobler, 2020). Despite the common theoretical foundation, scholars submit ambiguous findings on the effect of ICTs on economic development, which is attributed to various reasons such as variable selection, data availability, and disparity in estimation techniques. David and Grobler (2020) employed a panel analysis to examine the impact of ICT penetration on economic development; the study was primarily concerned with the use of ICT to minimise inequality disparities in Africa. The empirical findings of the study revealed that ICT has a positive impact on economic growth in Africa, despite the low levels of ICT penetration in the continent. The study concluded that increased investment in the ICT sector is necessary to facilitate long-run economic growth and development.

Similarly, Adeleye and Eboagu (2019) employed various panel analysis techniques such as pooled ordinary least squares (POLS), random effect model (REM) and fixed effect model (FEM) as well as the system generalised method of method (SGMM). The study investigated the impact of ICT on economic growth and development in Africa and reported a significant impact of ICT on economic growth and development, where internet access proved to be the ICT indicator that has the most significant impact. Their findings resonate with the study of Oluwatobi and Olurinola (2015) who also reported similar findings; in addition, Oluwatobi and Olurinola (2015) disclosed that ICT promotes equitable and increased access to and quality of education. This finding is relevant to this study.

As indicated, there is a lack of empirical literature that examines the specific effects of digitalisation and the nexus between increasing levels of ICTs and digital services on human capital development, particularly within the context of promoting education in the SADC region. This research study aims to add to available academic literature and peer-reviewed articles and reports to create a clearer and more objective view of human capital development and the role of the ICT-digitalisation nexus in increasing human capital for the region.

2.1 Theoretical framework

The theoretical framework and foundation selected for this paper are grounded in the theories of inclusive economics, modern development economics, and alternative theories to current popular neoliberal economic theory and policy that equates forms of capitalistic macroeconomic growth and the size and scope of a nation's gross domestic product with development and progress. The OECD (2023) defines inclusive growth as economic growth that is fairly distributed across society and that can create viable long-term opportunities for all of society. It also serves as a mechanism and conceptual framework for moving past the idea that quantifying a country's GDP is the means and end of all economic growth and measurement. According to the Rockefeller Foundation, the idea of a 'trickle-down' economy and the concept of so-called Reaganomics, where economic benefits will trickle down from the richest of society all the way down to the poor and disadvantaged, is fundamentally flawed, and modern interpretations of an inclusive economy should include characteristics such as equity, growth, equal participation, economic stability, and sustainability (Pacetti, 2023). These concepts align similarly with the vision and scope of work of the United Nations and the UNDP since the introduction of Human Development Index and the Multidimensional Poverty Index (MPI) built upon the work of development economists such as

Amartya Sen and Mahbub Ul Haq (UNDP, 2020: xi), and Sabine Alkire of the United Nations Development Program or UNDP (Alkire, Kanagaratnam & Suppa, 2021).

This theoretical framework informed the preliminary model; the model is constructed using the determinants of the human development index (HDI). In the model, gross national income (GNI) is used as a reliable proxy variable to estimate standard of living; life expectancy is used as a proxy to measure the average health status; and investment in education (from the public and private sector) is used as a proxy for education. These three variables are key variables to measure human development as informed by economic theory. The telecommunication index is built using an aggregate of various ICT indicators (mobile, fixed broadband penetration rates, mobile and FTTH subscription numbers for SADC member countries).

3. METHODOLOGY

3.1 Research design

A quantitative research methodology will be used for this research paper, utilising secondary panel data only, from sources such as the WDI (World Bank), United Nations, SADC, and the International Telecommunication Union (ITU). The structure that this research project follows is to, firstly, demonstrate in a primarily quantitative approach, the correlation and impact that an increase in ICT infrastructure, penetration, and ease of access/usage of innovative ICT technology has had on the development of human capital in the SADC region. This will be achieved using various econometric techniques and models.

Following the questions and issues above would be attempts to estimate, using current literature and data, any future trends in the development of ICT together with the HDI, real GNI rates and school completion rates for the countries included in the study, together with the implications this may have for economic and human capital development in the next five to ten years. The primary focus will be placed on the SADC region. South Africa, the region's largest economy, currently struggles to kick-start economic growth following the COVID-19 pandemic at a growth of just 1.9% estimated for 2022, with a historically challenging labour market, high rates of inflation, increasing rates of unemployment and levels of poverty that have not been witnessed for a decade (World Bank, 2022).

Again, the usage and increased penetration of broadband internet and newer more available ICT technologies such as fibre optic backbone networks and undersea intercontinental cables and newer more powerful handheld devices have had a statistically significant impact on getting back to meeting development goals in Southern Africa, and possibly enable the modelling or estimation of future development growth and the increased role and scope for technological innovation (Bayar, Remeikienė & Sart, 2023).

3.2 Research objectives

3.2.1 Primary objective

- Ascertain the effect and depth of impact that increasing penetration levels of ICT & related technologies have had on human capital development in the SADC region over the last 20 to 30 years.

- The focus will mainly be the impact of ICTs on access to information and impact on education.

3.2.2 Empirical objectives

To facilitate the achievement of the primary objective, the empirical portion of the study consists of the following objectives:

- Impact: Mobile cellular & internet penetration data increased over the last 20 to 30 years
- The role of decreasing costs of ICT devices and technology and its effect on human capital and economic development
- Secondary school completion rates for Africa (before + after introduction of broadband internet)
- Correlation between ICT and internet uptake to accompanying changes in development indices, e.g., HDI and MPI
- Does increased access to ICTs + high-speed broadband internet correlate to an increase in human capital and higher quality of life in areas researched?

The primary aim of this paper is the estimation of the impact of ICT (information and communications technology), and specifically its effect regarding educational investment, on human capital development in the SADC region. Guided by the theoretical framework of the research, a preliminary econometric model estimate of the following form has been deduced.

(The preliminary model is based purely on theoretical knowledge of the development of human capital and is subject to ratification and regression testing and analysis):

$$LNHumCap_{it} = \beta_0 + \beta_1 LNICT_{it} + \beta_2 LNGOVEX_{it} + \beta_3 LNHEALTH_{it} + \beta_2 LNCOUNTRYGNI_{it} + e_{it} \quad (1)$$

Where:

- **LNHumCapit:** Dependent variable representing human capital development – directly proxied to secondary school enrolment rates to provide effects of independent variable education on the dependent variable for this study.
- **i** – specific country from the SADC region.
- **t** – specific year for country i.
- **LNICTit:** Independent variable representing ICT technology usage level (taken as an aggregate indicator comprising amongst others: Broadband internet usage and subscriptions, Mobile broadband subscriber numbers, available bandwidth, mobile telephone subscription data (if available), fixed copper lines, ADSL subscriptions etc. in member countries i for the year t.
- **LNGovexit:** Independent variable that represents Investments in education (both private and public) for country i in year t.
- **LNHealthit:** Independent variable representing the second composite leg of UNDP measurement of HDI, e.g., the aggregate relative health status (e.g., life expectancy) for country i in year t.

- **LNCountryGNI_{it}**: Independent variable denoting the third composite factor of the UNDP HDI; in this case, I have selected the gross national income of country *i* for year *t*, as GNI is regarded theoretically as a more comprehensive indicator of a country’s standard of living compared to the gross domestic product (GDP) of a country, which may overstate the level of production and income in country and therefore overstate the current state of well-being of a country’s citizens.
- **β₀**: Constant term.
- **β₁, β₂, β₃, β₄**: The coefficients of their respective independent variables.
- **E_{it}**: The stochastic error term for the model.

The variables in the preliminary model are expressed in double natural logarithmic form.

4. EMPIRICAL RESULTS AND ANALYSIS

4.1. Stylised facts

Table 1: Summary statistics

Table 1 presents a data description of 308 observations of the SADC member states for the period from 2000 to 2021. The results from Table 1 show that the data series is normally distributed; this is evident from the p-values associated with the Jaque-Bera (JB) statistic that is less than 0.05.

| | HUMAN CAPITAL | ICT | GOVEX | HEALTH | COUNTRY GNI |
|------------------------|----------------------|------------|--------------|---------------|--------------------|
| Mean | 943225.7 | 75.21221 | 27.41326 | 58.92945 | 3.52E+10 |
| Median | 204134.3 | 57.48615 | 27.17535 | 59.18250 | 1.04E+10 |
| Maximum | 4904846. | 255.9788 | 119.1843 | 80.42683 | 3.65E+11 |
| Minimum | 6989.000 | 0.048533 | 0.000000 | 41.95700 | 0.000000 |
| Std. dev | 1334568 | 64.69394 | 18.18808 | 8.411108 | 7.58E+10 |
| Skewness | 1.745794 | 0.862390 | 1.409054 | 0.115334 | 3.232484 |
| Kurtosis | 4.918704 | 2.837125 | 7.377040 | 2.518159 | 12.41349 |
| Jaque-Bera Probability | 203.6985 | 38.51788 | 347.7859 | 3.662352 | 1673.591 |
| | 0.000000 | 0.000000 | 0.000000 | 0.160225 | 0.000000 |
| Sum | 2.61E+08 | 23165.36 | 8443.284 | 18150.27 | 108E+13 |
| Sum Sq. Dev | 5.47E+14 | 1284889. | 101557.5 | 21719.25 | 1.77E+24 |
| Observations | 308 | 308 | 308 | 308 | 308 |

Source: Author’s computation (2023)

4.2. Causality test results

The study conducted the panel Granger causality test to establish and observe the causal relationship between ICT and HUMCAP. The null hypotheses that were tested out are stated in Table 2; the study observed a positive, unidirectional relationship between ICT and HUMCAP,

which is because the study rejected the hypothesis that ICT does not homogenously cause HUMCAP on the basis that the p-value was significant (less than 0.05). Furthermore, the study accepted the null hypothesis that HUMCAP does not homogenously cause ICT on the basis that the p-value was statistically insignificant. The unidirectional causal relationship observed implies that ICT tools could be used to promote the development of human capital in the SADC region.

Table 2: Granger causality test

| Pairwise Granger causality tests | | | |
|---|-----|---------|--------|
| Lags: 2 | | | |
| Null hypothesis: | Obs | F-Stat | Prob. |
| HUMCAP does not homogenously cause ICT | 280 | 1.36837 | 0.2562 |
| ICT does not homogeneously cause HUMCAP | | 3.22330 | 0.0413 |

Source: Author’s computation (2023)

4.3. Panel OLS model

Table 3 (below) presents the results of the pooled multivariate regression using the Panel OLS (POLS) estimation technique. The results reveal that all independent variables that explain human capital are statistically significant at least at the 10 per cent significance level, except for the variable LNGOVEX, which is statistically insignificant. This implies that investment expenditure in education is not important in determining human capital. Furthermore, the results show that the explanatory variables exhibit an inverse relationship with the explained variables (except for the variable LNCOUNTRYGNI) and this finding violates the *priori* expectation and economic theory. This is because it is expected that the determinants of human capital will exhibit a positive relationship with the dependent variable. On the same strand, the results as shown in Table 3 show that an increase in LNICT by 1 per cent, will cause a 0.12 per cent decline in human capital. Because the variable LNGOVEX exhibited a negative relationship with LNHUMCAP, this implies that an increase in LNGOVEX will reduce LNHUMCAP by 0.03 per cent. According to the results, increasing LNHEALTH by 1 per cent will cause LNHUMCAP to decline by 1.44 per cent. Furthermore, an increase in LNCOUNTRYGNI will cause LNHUMCAP to increase by 0.96 per cent. The adjusted R-squared (0.76) suggests that the model is best suited and that the variables are strong or appropriate to model or explain human capital. This means that at least 76 per cent of the variation is explained by the regression model and 14 per cent is explained by the residual, which further means the model could be used to inform ICT and human capital policies.

Table 3: Panel OLS results

| Dependent variable: LNHUMCAP | | | | |
|---------------------------------|-------------|-----------|--------|--|
| Variable | Coefficient | t-Stat | Prob. | |
| C | -1.346474 | -1.712101 | 0.0879 | |
| LNICT | -0.119179 | -2.997883 | 0.0029 | |
| LNGOVEX | -0.033284 | -1.163090 | 0.2457 | |

| Dependent variable: | | | |
|---------------------|-----------|-----------|--------|
| LNHUMCAP | | | |
| LNHEALTH | -1.444094 | -3.530391 | 0.0005 |
| LNLCOUNTRYGNI | 0.959340 | 29.16074 | 0.0000 |
| Adjusted R-squared | 0.756931 | | |
| Prob (F-Stat) | 0.000000 | | |

Source: Author's computation (2023)

4.4. Two-way fixed effect model

Table 4: Fixed effect model test results

| Dependent variable: | | | |
|---------------------|-------------|-----------|--------|
| LNHUMCAP | | | |
| Variable | Coefficient | t-Stat | Prob. |
| C | 4.488006 | 4.451186 | 0.0000 |
| LNICT | 0.453494 | -2.997883 | 0.0000 |
| LNGOVEX | 0.026499 | -1.163090 | 0.0250 |
| LNHEALTH | -0.360879 | -3.530391 | 0.3834 |
| LNLCOUNTRYGNI | 0.085718 | 29.16074 | 0.3227 |
| Adjusted R-squared | 0.978223 | | |
| Prob (F-statistic) | 0.000000 | | |

Source: Author's computation (2023)

The results of the FEM model are presented in Table 4, and these results can be explained as follows: LNHEALTH (variable that measures a composite leg of the human development index) is the only variable that exhibits a negative relationship with human capital; moreover, the variable is statistically insignificant. This suggests that health is unimportant in explaining human capital in SADC member states, which goes against economic theory. The variable LNGOVEX shows a positive relationship with LNHUMCAP, which indicates that an increase in LNGOVEX by 1 per cent will increase LNHUMCAP by 0.026 per cent. The variable ICT (LNICT) shows a positive relationship with human capital (LNHUMCAP); moreover, the variable is statistically significant at least at the 5 per cent level of significance. The FEM results suggest that increasing LNICT by 1 per cent will cause an increase in LNHUMCAP, which conforms with the *priori* expectations and macroeconomic theories. However, the FEM results contrast the POLS results because the nature of the relationship revealed by the two estimation techniques is different from each other (Table 3 identified a negative relationship and Table 4 identified a positive relationship). On the same note, the adjusted R-squared (0.978) implies that the model is best suited for forecasting and informing ICT and human capital policies in SADC.

4.5. Redundant test

This study employed the redundant test to choose which model is better between the POLS and the FEM; the null hypothesis of the redundant test is that the POLS model is a more efficient model (preferred model), and the alternative hypothesis is that the FEM model is a more efficient model (preferred). The results in Table 5 show that the probabilities associated with the cross-section F test and the cross-section chi-square are both less than 0.05, which suggests that they are significant; therefore, the study rejected the null hypothesis and chose the FEM as the preferred model.

Table 5: Redundant test results

| Effect test | Statistic | d.f. | Prob. |
|--------------------------|------------|----------|--------|
| Cross-section F | 132.182104 | (13.264) | 0.0000 |
| Cross-section chi-square | 0.453494 | 13 | 0.0000 |

Source: Author’s computation (2023)

4.6. Random effect model

Table 6: Random effect model test results

Dependent variable: LNHUMCAP

| Variable | Coefficient | t-Stat | Prob. |
|--------------------|-------------|-----------|--------|
| C | 1.363509 | 1.965832 | 0.0502 |
| LNICT | 0.229508 | 10.57996 | 0.0000 |
| LNGOVEX | 0.009271 | 0.804336 | 0.4218 |
| LNHEALTH | -0.745890 | -2.342344 | 0.0198 |
| LNCOUNTRYGNI | 0.504709 | 8.134390 | 0.0000 |
| Adjusted R-squared | 0.587599 | | |
| Prob (F-statistic) | 0.000000 | | |

Source: Author’s computation (2023)

The study conducted the REM multivariate regression analysis, and the results are presented in Table 6, where the findings show that the variable for health (LNHEALTH) is the only variable that exhibits a negative relationship with human capital (LNHUMCAP). This suggests that increasing LNHEALTH by 1 per cent will cause LNHUMCAP by 0.078 per cent. At the height of this findings, LNHEALTH is statistically insignificant, which suggests that it is unimportant in explaining human capital. ICT (LNICT) and human (LNHUMCAP) exhibit a positive relationship, which conforms with the *priori* expectation and economic theory; furthermore, the p-value associated with t-stat is 0.000, which is less than 0.05.

This indicates that LNICT is statistically significant at least at the 5 per cent level of significance. Also, the results show that if you increase ICT (LNICT) by 1 per cent, it will cause the development of human capital (LNHUMCAP) to increase by 0.229 per cent. Comparing the FEM (Table 4) and REM (Table 6), the results show that ICT (LNICT) has the biggest impact on human capital (LNHUMCAP) when estimated using the FEM estimation technique. The results show that

investment in education (LNGOVEX) is statistically insignificant; however, it showed a positive relationship with human capital (LNHUMCAP). This implies that an increase in investment in education by 1 per cent (LNGOVEX) will increase the development of human capital (LNHUMCAP) by 0.09 per cent. The adjusted R-squared (0.587) means that at least 58 per cent of the variation is explained by the regression model and at least 42 per cent is explained by the residuals. This implies that the model is weak and not suited to model ICT on human capital in the SADC region.

4.6. Hausman test

The study conducted the Hausman test to select which model is superior between the FEM, REM, and GMM. The null hypothesis of the Hausman test is that the REM is a more efficient model. The Hausman test was performed on the REM model and the results are presented in Table 8. The results of the Hausman test (as shown in Table 8) show that the p-value associated with the Hausman test is less than 0.05 (0.0000); therefore, this study rejected the null hypothesis and concluded that the FEM model is the appropriate model.

Table 7: Hausman test results

| Correlated random effects | | | |
|----------------------------------|------------------|-------------|--------|
| Test summary | Chi-Sq Statistic | Chi-Sq d.f. | Prob. |
| Cross-section random | 132.182104 | (13.264) | 0.0000 |
| Cross-section chi-square | 0.453494 | 13 | 0.0000 |

Source: Author’s computation (2023)

4.7. Generalised methods of moments (GMM)

Table 8: GMM test results

| Dependent variable: LNHUMCAP | | | |
|-------------------------------------|-------------|--------|-------|
| Variable | Coefficient | Z-Stat | Prob. |
| C | 0.3253781 | 2.62 | 0.009 |
| LNICT | 0.0059085 | -1.00 | 0.315 |
| LNGOVEX | 0.0038937 | -1.61 | 0.108 |
| LNHEALTH | -0.0788903 | -1.23 | 0.217 |
| LNCOUNTRYGNI | 0.0057069 | 3.03 | 0.002 |
| Wald chi2(5) | 24104.37 | | |
| Prob > chi2 | 0.0000 | | |

Source: Author’s computation (2023)

Table 7 presents the GMM test results, and the results show that all the variables have a positive relationship with human capital, except for the variable of health (LNHEALTH). The results show that ICT (LNICT) has a positive relationship with human capital (LNHUMCAP), which implies that an increase in LNICT by 1 per cent will cause LNHUMCAP to increase by 0.005. This is the smallest impact of ICT on human capital reported in this study in comparison with the other estimation techniques (FEM and REM). Furthermore, LNICT is reported to be statistically

insignificant, which suggests that LNICT is weak in explaining LNHUMCAP development in the SADC, which violates the *priori* expectation and macroeconomic theories. LNCOUNTRYGNI is statistically significant at least at the 95 per cent confidence interval. The positive relationship between the country's gross national income and human capital indicates that an increase in LNCOUNTRYGNI by 1 per cent will increase LNHUMCAP by 0.005 per cent. Table 7 further shows that investment expenditure in education (LGOVEX) is statistically insignificant, which violates the *priori* expectation because education (investment) is one of the determinants of human capital. The results of the GMM estimation technique revealed similar results (on the nexus of ICT and human capital) as with the FEM and REM estimation techniques; however, there is significant variation on the extent and magnitude that ICT has on human capital as reported by the three estimation techniques (Table 4, 6, and 7).

5. DISCUSSION OF RESULTS

The POLS estimation results of the multivariate analysis revealed a negative relationship between ICT and human capital development (see Table 3); however, the FEM, REM, and GMM results revealed a positive, yet low impact of ICT on human capital development (see Tables 4, 6, and 7). The negative relationship between ICT and human capital development violates the *priori* expectation because economic theory and existing literature suggest that ICTs have a positive impact on human capital development. This finding, as unusual as it is, is like the findings of Ejemeyowvi, Osabuohien and Osabuohien (2018), who argued that the negative relationship observed between ICT and human capital development could be as a result that investments in ICT are not transmitted effectively to translate into positive impact on human capital development. The low, positive impact of ICT on human capital (reported in Tables 4, 6 and 7) is argued to be the outcome of low or insufficient investment on ICT tools and services to have a significant impact on human capital development on human capital (Oluwatobi, Olurinola & Taiwo, 2016). The implication of these notions would be to encourage policymakers and relevant stakeholders to expand investment in ICT-driven education systems, which will ensure that secondary school enrolment increases. Also, this will ensure that education could be provided affordably and will be widely accessible as ICTs are infamous for admin and transportation costs (education could also be delivered remotely to marginalised regions).

The results in Tables 3, 4, 6 and 7 revealed a contrasting relationship between human capital development and investment in education; the GMM, REM, and FEM models reported a positive relationship between the two variables. The POLS model, on the other hand, reported a negative and statistically insignificant relationship, which goes against *priori* expectation because it is expected that investment in education has a positive relationship with human capital, as found in the study by Mariana (2015). The results of the positive and low impact of investment in education on the development of human capital suggests that investment in education is not spent adequately and sufficiently on all education levels/spheres. This means that there are probably disparities based on location (rural versus urban), and level (primary, secondary, tertiary, adult basic education, and training). The implication of this finding would be to encourage SADC policymakers and other key stakeholders to invest in ICT-driven education systems in all education spheres. This is because ICT often provides solutions to the issues that hamper inclusive access to

education; furthermore, ICTs have been discovered as tools that facilitate and promote human capital development through education (Yeboah, Fosu & Kyere-Djan, 2013).

6. CONCLUSION AND RECOMMENDATIONS

The pervasive nature of ICTs offers developing countries advent opportunities to promote their developmental objectives, and therefore, many developing economies have increased investment in ICTs to achieve their macroeconomic developmental objectives. In the SADC region, the development of human capital lies at the core of various developmental mandates, which are informed by a litany of theoretical and empirical evidence. The primary objective of this paper was to analyse and estimate the impact of ICT on human capital development, particularly the effect that ICTs have on educational investment and on the development of human capital in the SADC region. The goal and scope of the study were to increase and add to the existing knowledge, academic literature, and research for this region specifically rather than continuing to focus on continental Africa and/or the Sub-Saharan African region. By focusing on the impact of ICTs on education in the region, a more thorough review of secondary school completion rates for the SADC, both before and after the introduction of broadband internet technologies such as 4G/5G mobile internet and FTTH fixed internet can be ascertained.

The study employed the sample data for the period 2000 to 2021 for the SADC member states. To achieve the empirical objectives of this paper, this study employed various panel data analysis techniques and estimations, including the panel Granger causality test, panel OLS, REM, FEM, and GMM estimation models. Also, the Hausman test and the redundancy test were used to select the best-fitted model. The results revealed a unidirectional causal relationship between ICT and human capital, which indicated that ICT granger causes human capital; moreover, the relationship that was observed between the two variables was a positive one. The implication of this finding is to provide empirical evidence to encourage policymakers and key stakeholders (businesses, NGOs, investors) in the SADC to invest in ICT-driven education programmes, tools, and services. This will promote the development of human capital in the region and help facilitate the economic development mandates in the region.

The multivariate analysis revealed a positive relationship between ICT and human capital, the REM and FEM estimation techniques reported ICT to be statistically significant at least at the 5 per cent significance level. On the contrary, the GMM reported ICT to be statistically insignificant. The multivariate models revealed that investment in education has a positive relationship with human capital, although investment in education was reported to be statistically insignificant by the GMM and REM models. The implication of this finding is to guide and encourage ICT policymakers and other relevant stakeholders to prioritise ICT programmes within the schooling systems to promote human capital within the region. The study does recognise that some economies within the region may lack the fiscal support and infrastructure and skills to priorities ICTs; therefore, this may hinder the development of human capital in the region.

In conclusion, the Sub-Saharan region of Africa, particularly the SADC developmental region, shows vast potential for economic growth and human capital development that could transform

the area into a global economic powerhouse if governments, industries, and private investment carefully plan and invest in ICT and networking infrastructure.

REFERENCES

- Abramovitz, M. (1989). Thinking about Growth in: M. Abramovitz. *Thinking about Growth and other Essays on Economic Growth and Welfare*, Cambridge University Press, pp. 3-79.
- Adeleye, N., and Eboagu, C. (2019). Evaluation of ICT development and economic growth in Africa. *Netnomics: Economic Research and Electronic Networking*, 20(1), 31–53.
- Alkire, S., Kanagaratnam, U., and Suppa, N. (2021). The global Multidimensional Poverty Index (MPI) 2021, *OPHI MPI Methodological Note 51*, Oxford Poverty and Human Development Initiative, University of Oxford.
- Asongu, S. A., and Odhiambo, N. M. (2019). Enhancing ICT for quality education in Sub-Saharan Africa. *Education and Information Technologies: The Official Journal of the Ifip Technical Committee on Education*, 24(5), 2823–2839. <https://doi.org/10.1007/s10639-019-09880-9>
- Bayar, Y., Remeikienė, R. and Sart, G. (2023). ICT Penetration and Human Development: Empirical Evidence from the EU Transition Economies. *J Knowl Econ* (2023). <https://doi.org/10.1007/s13132-023-01363-0>
- Corrigan, T. (2020). *Policy Briefing No. 197 – Africa’s ICT infrastructure: its present and prospects*. South African Institute of International Affairs (SAIIA), Johannesburg.
- Ejemeyovwi, J. O., Osabuohein, E. S., & Osabohein. (2018). ICT investments, human capital development and institutions in ECOWAS. *Int. J. Economics and Business Research*, 15(4):463-474.
- Frankfurter, Z., Kokoszka, K., Newhouse, D., Silwal, A. R., Tian, S. (2020). ‘Measuring Internet Access in Sub-Saharan Africa; Measuring Internet Access in Sub-Saharan Africa’. *Poverty and Equity Notes; No.31*. World Bank, Washington.
- Iqbal, K., Hassan, S. T., Peng, H., and Khurshaid. (2019). Analyzing the role of information and telecommunication technology in human development: panel data analysis. *Environmental Science and Pollution Research*, 26(15), 15153–15161. <https://doi.org/10.1007/s11356-019-04918-4>
- Jezic, Z., Zaninovic, P. A., and Skulic, R. (2022). How Does the ICT Affect Human Development? Evidence from Developing vs. Developed Countries. *Zbornik Radova Ekonomskog Fakulteta u Rijeci: Casopis Za Ekonomsku Teoriju i Praksu/Proceedings of Rijeka School of Economics: Journal of Economics and Business*, 40(1), 9–27.
- Johns Hopkins University and Medicine. (2022). *Johns Hopkins University and Medicine: Coronavirus Research Center*, Johns Hopkins University: Baltimore, Maryland. Last accessed on 18 October 2022. <https://coronavirus.jhu.edu/>

-
- David, O., O., and Grobler, W. (2020). Information and communication technology penetration level as an impetus for economic growth and development in Africa. *Economic Research-Ekonomska Istraživanja*, 33:1, 1394-1418, DOI: 10.1080/1331677X.2020.1745661
- Kuznets, S. (1966). *Modern Economic Growth: Rate, Structure and Spread*. New Haven, Connecticut: Yale University Press.
- Landes, D. (1998). *The Wealth and Poverty of Nations: Why Some Are so Rich and Some so Poor*. New York/London: Norton.
- Maddison, A. (2001). *The World Economy: A Millennial Perspective*. Development Centre Studies, Paris: OECD.
- Mariana, I. (2015). Consequences of the investment in education as regards to human capital. *Procedia Economics and Finance*, 23:362-370.
- Myint, H. (1980). *The Economics of the Developing Countries*. 5th Edition, London – Hutchinson.
- Nkomo, S., and Matli, W. (2022). Emergency remote education in southern African schools: digital transformation bridging the gap in the COVID-19 era. *International Journal of Educational Development*, 7(1), 1–17. <https://doi.org/10.25159/2312-3540/11609>
- Obiri-Yeboah, K., Fosu, C., and Kyere-Djan, R. (2013). Exploring the trend of ICT adoption in tertiary institutions in Ghana: A case study of Kwame Nkrumah University of Science and Technology. *Information and Knowledge Management*, 3(5):44-52.
- Organisation for Economic Cooperation and Development. (2023). *What is Inclusive Growth?* OECD (Organisation for Economic Co-operation and Development). Last Accessed on 04 April 2023. [Inclusive Growth - Economic growth that is distributed fairly across society \(oecd.org\)](https://www.oecd.org/inclusive-growth/)
- Oluwatobi, S., and Olurinola, O., (2015). *Mobile learning in Africa: strategy for educating the poor*, SSRN. <https://doi.org/10.2139/ssrn.260656262>
- Oluwatobi, S. O., Olurinola, I. O., and Taiwo, O. (2016). Human capital development in Sub-Saharan Africa: The role of ICT. *Journal of Economics Studies and Research*, 2016:1-11.
- Pacetti, E.G. (2023). *The Five Characteristics of an inclusive economy: Getting Beyond the Equity-Growth Dichotomy*, Rockefeller Foundation. Last accessed on 05 April 2023. [The Five Characteristics of an Inclusive Economy: Getting Beyond the Equity-Growth Dichotomy - The Rockefeller Foundation](https://www.rockefellerfoundation.org/publications/2023/05/the-five-characteristics-of-an-inclusive-economy-getting-beyond-the-equity-growth-dichotomy/)
- Ponelis, S.R., and Holmner, M.A. (2015) ICT in Africa: Building a Better Life for All, *Information Technology for Development*, 21:2, 163-177,
- Southern African Development Community (2023a). *Southern African Development Community Homepage*, The Southern African Development Community official website, last accessed on 04 April 2023. <https://www.sadc.int/>
-

Southern African Development Community. (2023b). *SADC Objectives*, The Southern African Development Community official website, last accessed on 21 March 2023. <https://www.sadc.int/pages/sadc-objectives>

Southern African Development Community. (2023c). *SADC Pillars: ICT and Telecommunications*, The Southern African Development Community official website, last accessed on 03/04/2023. [ICT & Telecommunications | SADC](#)

South African Reserve Bank. (2023). *The South African Reserve Bank – Home Page*, the South African Reserve Bank, South Africa. Last accessed on 27 March 2023. <https://www.resbank.co.za/en/home>

Song, S. (2023). *Annual Review - Africa Telecoms infrastructure in 2022*, Last accessed on 02 April 2023. <https://manypossibilities.net/2023/01/africa-telecoms-infrastructure-in-2022/>

Szirmai, A. (2015). *Socio – Economic Development – Second Edition*, Cambridge University Press, Cambridge, United Kingdom.

United Nations Development Programme. (2020). *Human Development Report 2020: The next frontier – Human Development and the Anthropocene*, New York: United Nations Development Programme.

United Nations Development Programme. (2022). *Human Development Report 2021/2022: Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World*, New York: United Nations Development Programme.

World Bank. (2022). *The World Bank in South Africa – Overview*. Last accessed October 15, 2022, from <https://www.worldbank.org/en/country/southafrica/overview>

World Bank. (2023a.). *Individuals using the Internet (% of population) – Sub-Saharan Africa*, World Bank. Last accessed on 06 April 2023. [Individuals using the Internet \(% of population\) - Sub-Saharan Africa | Data \(worldbank.org\)](#)

World Bank. (2023b). *Individuals using the Internet (% of population) – World*, World Bank. Last accessed on 06 April 2023. [Individuals using the Internet \(% of population\) - World | Data \(worldbank.org\)](#)

World Bank. (2023c). *Individuals using the Internet (% of population) – North America*, World Bank. Last accessed on 06 April 2023. [Individuals using the Internet \(% of population\) - North America | Data \(worldbank.org\)](#)

World Bank. (2023d). *Individuals using the Internet (% of population) – European Union*, World Bank. Last accessed on 06 April 2023. [Individuals using the Internet \(% of population\) - European Union | Data \(worldbank.org\)](#)

World Bank. (2023e). *Individuals using the Internet (% of population) – Asia*, World Bank. Last accessed on 06 April 2023.

SSIRC 2023-175**THE RELATIONSHIP BETWEEN HUMAN RESOURCE MANAGEMENT PRACTICES AND ORGANISATIONAL COMMITMENT IN SMALL MEDIUM ENTERPRISES****K.M. Matlakala**

University of Limpopo, South Africa

ABSTRACT

The purpose of this study was to investigate the relationship between HRM practices and organisational commitment of employees in the Small and Medium Enterprises (SMEs) in Capricorn District in Limpopo Province. A quantitative research design was used in which self-administered questionnaires were utilised to collect data from a convenience sample of 149 participants. The sample size constituted 149 employees from 18 SMEs. The data was collected using three structured questionnaires (Demographic section), (Human Resource Management Practices Questionnaire and Organisational Commitment Questionnaire) with closed questions. Descriptive and inferential statistics including correlation and regression analyses were used to conduct data. The findings indicated a positive relationship between HRM practices and Organisational Commitment. The results revealed that employees were not satisfied with the HRM practices in the workplace and needed higher organisational commitment. It was recommended that SMEs managers implement proper HRM practices for their employees to be committed to the organisation. The study suggests further research on other HRM practices that may have an influence on employee's organisational commitment.

KEYWORDS: HRM practices, Organisational commitment, SMEs, Recruitment and selection, Affective commitment.

1. INTRODUCTION

Small and medium enterprises (SMEs) contribute to economic growth in developing countries. This is of particular importance in South Africa, with its unequal income distribution and unemployment challenges (Lekhanya, 2013). However, SMEs are faced with serious challenges, such as rising pressures from globalization and competition from established firms (Baard, 2004). A well-managed and motivated workforce is needed to increase the competitiveness of SMEs and the quality of products and services. The human resources component is the most valuable aspect of any organisation in developing countries (Ehtesham, Muhammad & Muhammad, 2011). Employees are the key to help organisations to realising both short and long terms goals. Hence, there is a need for efficient and effective Human Resource Management (HRM) practices in SMEs to actively reap the rewards that are introduced with a well-managed workforce (Clinton-Baker, 2014).

HRM practices that are properly practised encourage employees to perform better (Kuvaas & Dysvik, 2010). In addition, research findings show that employees with positive perception of HRM practices experience a low level of stress, as compared to those with negative perception of

HRM practices (Macky & Boxall, 2008; GouldWilliams & Mohamed, 2010). HRM practices can be a significant source of employee satisfaction, leading to lower absenteeism, reduced turnover, and increased employee loyalty to the organisations (Ijigu, 2015). Organisations that deploy an HRM practice strategy have employees who are committed to the organisation and feel a need to be part of the growth of the firm in the longer run (Vandenberghe & Bentein, 2009).

Several research examining the relationship between HRM practices and performance. Such research has been conducted at corporate level (Wright, Gardner & Moynihan, 2007). Payne and Huffman (2008) found in a longitudinal study that organisational commitment mediated the relationship between mentoring, HRM practices, and employee commitment over time. This research focused on the link between HRM practices and organisational commitment in SMEs. The research focused on the empirical and conceptual analyses of organisational commitment and the importance of HRM practices on organisational commitment (Wright & Nishii, 2007).

2. LITERATURE REVIEW

2.1. Human Resource Management Practices

Success in the recent competitive market relies less on advantages associated with economies of scale, technology and patents but are more derived from organisational human resources and high involvement of HRM practices (Tahir, Ayisha, Mohammad, Rauf & Syed, 2010). HRM practices were taken as a set of employee management practices (Boselie, Dietz, & Boon, 2005). Therefore, HRM practices circulate a vital role in today's organisations, yet just importantly in how personnel manage SMEs.

According to Woodrow and Guest (2014), the emphasis of SMEs is on application of HRM practices, seen as a non-deviation procedure that starts with the strategy of a new HRM policy or practice and advances to its involvement in and use by employees, managers and HRM professionals. SMEs should employ HRM practices that suit their employees to increase productivity and improve economic growth. For HRM practices to be effective, organisations and employers must play an important role regarding their employees, given that HRM practices are important in the success of an organisation (Gillespie & Dietz, 2009).

Researchers such as Carlson, Upton, and Seaman (2006); Zakaria (2013); Tansky and Heneman (2003) suggest that international countries such as Malaysia and Europe would be potentially strong trading economies for the next decade based on economic analyses, because SMEs play a vital role in these countries as they contribute to most of their domestic employment and GDP. Cakar and Erturk (2010) state that managing HRM practices is different in SMEs due to firm size, owner priorities and lack of formality. This chapter provides a conceptual basis on the role of HRM practices in the context of SMEs. Armstrong (2009) states different types of HRM functions such as recruitment and selection, performance appraisal, administrative services, human resource planning, feedback, talent management, training and development, compensation and benefit, employee welfare, employee relations, health and safety and provision of services for employees.

2.2. Organisational commitment

Studies have shown that employees' commitment is vital in attaining organisational success or goals (Khalili & Asmawi, 2012). Employees who are committed to their jobs are more likely to become productive than those who are not committed. As mentioned by Clinton-Baker (2014), the relationship between employees and their organisations impacts organisational commitment. The idea of organisational commitment has grown in recognition in the literature of industrial and organisational psychology (Cohen, 2003). Organisational commitment refers to the choice and willingness of an employee to contribute to the achievement of an organisation (Sani, 2013). According to Ruokolainen (2011), organisational commitment displays the degree to which employees internalise or adopt the characteristics or views of the employer. Organisational commitment needs to be considered in SMEs, because most employees in SMEs are not committed to their work simply because they view their organisations as being small not seeing a possibility for growth and expansion in them (Cohen, 2007).

Strong bonds with an organisation will persuade employees to stay in the organisation for a very long time and on the other hand, employees will feel a strong sense to continue to be within the organisation due to strong continuance commitment (Humayoun, 2011). Affective commitment reflects an emotional attachment and involvement inside the business enterprise. Continuance commitment is based on the perceived cost related to discontinuing employment with the corporation (Herrbach, 2006). Therefore, employees stay in the organisation for a longer period if they feel a need of acceptance and continuance commitment in the organisation. Continuance commitment reflects worker commitment to stay in an organisation primarily based on sensible attention (Zhou, Plaisent, Zheng & Bernard, 2014).

Organisational commitment is the person's attachment to the organisation and that means that employees will keep on working for their own organisation. This entails a lively relationship between the organisation and the people who are willing to present something on the way to contribute to the organisation's growth (Lamba & Choudhary, 2013). This is the part where organisations need to value their employees by simply rewarding them for the good job they share and increase productivity and growth of the organisation. Most employees are loyal to the organisation when they feel a need of belonging and a simple fact of being valued in the firm they work. Research has indicated that employee commitment is an essential condition in attaining organisational success or desires, hence, employees who value organisational goals are likely to commit to the organisation (Khalili & Asmawi, 2012).

2.3. The relationship Between Human Resource Management practices and Organisational Commitment.

A review of the literature reveals that most of the research attempted to determine the impact of HRM practices on the employee's performance and on organisational performance (Katou & Budhwar, 2010). Research to observe the relationship between HRM practices and organisational commitment of employees is considered much less critical than it deserves (Meyer & Smith, 2000). Bal and Bozkurt (2014) have studied six HRM practices consisting of recruitment and selection,

training and development, overall performance appraisal, work situations, compensation rewards and involvement in terms of organisational commitment.

Organisational commitment is an indicator that testifies whether the HRM practices deployed by an organisation can foster psychological links among organisational and employee goals (Chen & Delmas, 2012). HRM practice is an intangible outcome of an HRM system and is critical in keeping employees and fully growing their capability over the years (Ahmad & Schroeder, 2003). Chew and Chan (2008) tested the impact of HRM practices on permanent employees' organisational commitment and their intention to stay and discovered that organisational commitment was positively affected by person-organisation match, remuneration, recognition, and an opportunity to undertake challenging employment assignments.

The study conducted by Soomro, Gilal and Jatoi (2011), Paul and Anantharaman's (2004) found evidence that HRM practices (training, selection, career planning, compensation, and performance appraisal) are correlated with organisational commitment of employees in organisations, additionally, that the study of software professionals showed that HRM practices had a significant positive relationship with organisational commitment. HRM systems such training, performance and payroll have also been discovered to relate to commitment in samples of frontline employees from car rental, retail, or hospitality organisations (Browning, 2006). Supportive HRM policies such as involvement, work conditions and training, development and education also enhance organisational commitment.

3. METHODOLOGY

3.1 Research design

A review of literature revealed that organisational commitment research tends to use quantitative approach. Accordingly, this study adopts a quantitative approach to explore HRM practices that increase organisational commitment.

3.2 Sampling method

The convenience sampling method was used in this study. The sample size of 18 SMEs with 149 employees participated for 48 SMEs in the Capricorn district. 169 questionnaires were distributed to the SMEs employees who were available and willing to participate. This represents a return or response rate of about 88% of the convenience sample.

3.3 Research instrument

The questionnaires were physically distributed to employees and the participants were requested to send the questionnaires back after completion. The purpose and use of data for the study were explained to respondents in an accompanying cover letter which is at the beginning of the questionnaires. After the completion of the research, a letter was sent to the participating schools thanking them for participating in the research project.

3.4 Data collection

When administering the questionnaire, a written letter was sent to the SMEs to request for permission to collect the data. Written permission was granted by the research office who issued

an ethical clearance certificate to conduct research with the SMEs. The purpose and use of data for the study were explained to respondents in an accompanying questionnaire cover letter. Consent was also requested from the respondents before the distribution of the questionnaires. Questionnaires were distributed in a way that would not cause any disturbance in the workplace, namely, during tea breaks, lunchtime and after working hours. The researcher used hard-copy questionnaires to distribute to participants, as it was more effective than emailing the questionnaires to them. The researcher was present during data collection with the help of two friends to assist employees who are older and illiterate in filling out the questionnaires and answering any unclear questions they may have concerned the questionnaire.

4. RESULTS AND DISCUSSION

For the analysis of data in this study, descriptive statistics were used, and the information has been input in Microsoft excel tables, graphs and calculated some statistical indexes to allow easier comparisons between the variables.

1.1. Descriptive statistics

The descriptive statistics involves methods of organizing, picturing, and summarizing information from data. Descriptive statistics such as mean and standard deviation were obtained from the interval scaled independent and dependant variables.

Table 1: Descriptive statistics of different variables

| N=25 | Mean | Standard Deviation |
|---------------------------|------|--------------------|
| HRM practices | 2,7 | 0,46 |
| Organisational Commitment | 2,6 | 0,39 |

Table 1 above indicates that the standard deviation scores for organisational commitment is (2.6) and HRM practices is (2.7) out of a possible score of five. It is there evident that there is a positive trend towards organisational commitment and HRM practices since the mean score is above 2.5.

Table 2: Pearson correlations between overall HRM practice, overall organizational commitment, and three organizational commitment types (N = 149)

| df=23 | HRM practices | OC |
|-----------|---------------|----|
| r=Pearson | r=0,241 | |
| p.05=0,34 | S | S |
| p.02=0,46 | S | S |

The correlation coefficient (r) was calculated by means of Pearson's Product Moment. According to Cohen (1988), ranging from 0.10 to 0.29 may be regarded as indicating a low degree of correlation, r 0.30 to 0.49 may be regarded as indicating a moderate degree of correlation and r ranging from 0.50 to 1.00 may be regarded as a high degree of correlation. The Pearson correlation was used to investigate the inter-relations amongst the variables.

Table 2 above shows the correlation results. The correlation between the overall HRM practices and overall organisational commitment is ($r=0.241, p=0.002$). The results indicate that the overall HRM practice and OC are positively related. The results support the hypothesis that there is a significant positive relationship overall HRM practices and organisational commitment of SMEs employees.

1.2. Table 3: Socio-demographic characteristics of respondents

| Variable | | N=149 | Percentage (%) |
|---------------------|--------------|-------|----------------|
| Gender | Male | 60 | 40 |
| | Female | 89 | 60 |
| Age | <40 | 11 | 44 |
| | >40 | 14 | 56 |
| Duration of service | Long service | 17 | 68 |
| | Short | 8 | 32 |
| Level of position | Top-level | 4 | 16 |
| | Middle level | 13 | 52 |
| | Lower level | 8 | 32 |

Table 3 shows the response rate for this study. One hundred and sixty-nine (169) questionnaires were distributed to employees and one hundred and forty-nine (149) usable questionnaires were returned. This indicates that a response rate of 88.16% was achieved.

Table 4: Summary of the results for hypotheses

| Hypotheses | Results (Accepted or rejected) |
|---|-----------------------------------|
| H0: there is a positive relationship between HRM practices and organisational commitment | Accepted |
| H1: there is a negative relationship between HRM practices and organisational commitment | Rejected |

5. CONCLUSION

The study findings reveal that there is indeed a relationship between HRM practices and organisational commitment. HRM practices, such as compensation and benefits, performance appraisal and recruitment and selection are significantly related to organisational commitment. Armstrong (2009), who indicated that employees must be given the opportunity to advertise their skills and show their knowledge and aptitudes to perform in a healthy working condition, also supports these findings. This means that the desire to remain in the organisation for too long may

be due to the employee's values and goals matching with the primary goals and values of the organisation. It was deduced from the present study that SMEs which take care of their employees need to stand a higher chance of growth and productivity. Research findings also revealed a positive relationship between HRM practices and organisational commitment (Tahir, Ayisha, Mohammad, Rauf & Syed, 2010).

REFERENCES

- Ahmad, S., & Schroeder, R. G. (2003). The impact of human resource management practices on operational performance: recognizing country and industry differences. *Journal of Operations Management*, 21(1), 19-43.
- Allen, N. J., & Meyer, J. P. (1997). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1-18.
- Armstrong, M. (2009). *Armstrong's handbook of human resource management practice* 11th edition.
- Baard, P. P. (2004). Intrinsic need satisfaction in organizations: A motivational basis of success in for-profit and not-for-profit settings. *Handbook of self-determination research*, 2(1), 255-275.
- Bal, Y., & Bozkurt, S. (2014). Determining the influence of HRM practices on increasing organizational commitment: empirical research from turkey. *Human Capital without Borders, Knowledge, and Learning for Quality of Life*, 10(4), 25-27.
- Browning, V. (2006). The relationship between HRM practices and service behaviour in South African service organizations. *The International Journal of Human Resource Management*, 17(7), 1321-1338.
- Çakar, N. D., & Ertürk, A. (2010). Comparing innovation capability of small and medium-sized enterprises: examining the effects of organizational culture and empowerment. *Journal of small business management*, 48(3), 325-359.
- Hausdorf, P. A., & Duncan, D. (2004). Firm size and Internet recruiting in Canada: A preliminary investigation. *Journal of small business management*, 42(3), 325-334.
- Henry, O., & Temtime, Z. (2009). Recruitment and selection practices in SMEs: Empirical evidence from a developing country perspective. *Advances in Management*, 3(2), 5258.
- Herrbach, O. (2006). A matter of feeling? The affective tone of organizational commitment and identification. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(5), 629-643.
- Hevenstone, D. (2010). National context and atypical employment. *International Sociology*, 25(3), 315-347.
- Hewitt, A. (2009). Managing performance with incentive pay, *Journal of personnel Management*, 7(1), 20-31.

-
- Hill, K. O. (2001). Fiber Bragg grating technology fundamentals and overview. *Journal of lightwave technology*, 15(8), 1263-1276.
- Huffman, A. H., Youngcourt, S. S., Payne, S. C., & Castro, C. A. (2008). The importance of construct breadth when examining interrole conflict. *Educational and Psychological Measurement*, 68(3), 515-530.
- Ismail, H. (2013). Exploring employee involvement in hotels in Lebanon: a case study. *Journal of Management Policy and Practice*, 14(2), 62-75.
- Jacobs, E., & Roodt, G. (2007, May). The development of a knowledge-sharing construct to predict turnover intentions. In *Aslib Proceedings*. Emerald Group Publishing Limited, 59(3), 229-248.
- Jacobs, K. 2005. Hybridisation or polarisation: Doctors and accounting in the UK, Germany and Italy. *Financial Accountability & Management*, 21(2), 35-162.
- Katou, A. A., & Budhwar, P. S. (2010). Causal relationship between HRM policies and organisational performance: Evidence from the Greek manufacturing sector. *European management journal*, 28(1), 25-39.
- Katz, J. A., & Kundu, S. K (2000). Born-international SMEs: BI-level impacts of resources and intentions. *Small Business Economics*, 20(1), 25-47.
- Kelly, J. (2001). The role of the personnel/HR function in multinational companies. *Employee relations*, 23(6), 536-557.
- Kelman, H. C. (1958). Compliance, identification, and internalization three processes of attitude change. *Journal of conflict resolution*, 2(1), 51-60.
- Kerr, A., & McDougall, M. (1999). The small business of developing people. *International small business journal*, 17(2), 65-74.
- Kongolo, M. (2010). Job creation versus job shedding and the role of SMEs in economic development. *African Journal of Business Management*, 4(11), 2288-2295.
- Kotey, B., & Folker, C. (2007). Employee training in SMEs: Effect of size and firm type— Family and nonfamily. *Journal of Small Business Management*, 45(2), 214-238.
- Kreitner, R., & Kinicki, A. (2007). *International OB: Managing across cultures*. Boston: McGraw-Hill.
- Krishnan, J. (2005). Audit committee quality and internal control: An empirical analysis. *The Accounting Review*, 80(2), 649-675.
- Kuswantoro, F., Rosli, M. M., Abdul, R., & Ghorbani, H. (2012). Impact of distribution channel innovation on the performance of small and medium enterprises. *International Business and Management*, 5(1), 52-61.
- Kuvaas, B., & Dysvik, A. (2010). Exploring alternative relationships between perceived investment in employee development, perceived supervisor support and employee outcomes. *Human Resource Management Journal*, 20 (2), 138–156.
-

-
- Laird, D., Holton, E. F., & Naquin, S. S. (2003). *Approaches to training and development: revised and updated*. Basic Books.
- Laka-Mathebula, M.R. (2004). Modelling the relationship between organisational commitment, leadership style, human resource management practices and organisational trust. *University of Pretoria, Pretoria, South Africa*, 16(2), 23-48.
- Lamba, S., & Choudhary, N. (2013). Impact of HRM Practices on Organizational Commitment of Employees. *International Journal of Advancements in Research & Technology*, 2(4), 407-423.
- Lambert, M., Vero, J., & Zimmermann, B. (2012). Vocational training and professional development: A capability perspective. *International Journal of Training and Development*, 16(2), 164-182.
- Marchington, M., & Grugulis, I. (2000). 'Best practice' human resource management: perfect opportunity or dangerous illusion? *International Journal of Human Resource Management*, 11(6), 1104-1124.
- Marchington, M., Rubery, J., & Grimshaw, D. (2011). Alignment, integration, and consistency in HRM across multi-employer networks. *Human Resource Management*, 50(3), 313-339.
- Markovits, Y., Boer, D., & van Dick, R. (2014). Economic crisis and the employee: The effects of economic crisis on employee job satisfaction, commitment, and self-regulation. *European Management Journal*, 32(3), 413-422.
- Marlow, S. (2005). Introduction. In *Managing labour in small firms*. Routledge. 5(1), 11-27.
- Martin, D. W. (2007). *Doing psychology experiments*. Cengage Learning. 8(2), 38-57.
- Martin, A., & Roodt, G. (2008). Perceptions of organisational commitment, job satisfaction and turnover intentions in a post-merger South African tertiary institution. *South African Journal of Industrial Psychology*, 34(1), 23-31.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human resource management review*, 1(1), 61-89.
- Meyer, J.P., & Allen (1991), Human resource management practices on organizational commitment. *Personnel Review*, 65 (2) 71-88.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Sage, 2(1), 99-144.
- Meyer, J. P. & Smith, C. A. (2000). HRM practices and organizational commitment: Test of a mediation model. *Canadian Journal of Administrative Sciences*, 17(4), 319-331.
- Meyer, J.P., & Smith, C.A. (2001), HRM Practices and Organizational Commitment: Test of a Mediation Model. *Canadian Journal of Administrative Sciences*, 17, 319-331.
- Michael, O., Court, D., & Petal P. (2009). *International Journal of Educational Management*, 2 (3), 266-288.
-

-
- Paul, A. K., & Anantharaman, R. N. (2004). Influence of HRM practices on organizational commitment: A study among software professionals in India. *Human Resource Development Quarterly*, 15(1), 77-88.
- Ruokolainen, M. (2011). Do organizational and job-related factors relate to organizational commitment? A mixed method study of the associations. *Jyväskylä Studies in education, psychology, and social research*, (428).
- Sekaran, U. (2003). *Research methods for business: A skill building approach* New York: , John Wille, 2(3), 3
- Soomro, M. I., Jatoti, M. M., & Gilal, R. G. (2011). interdisciplinary journal of contemporary research in business. *Interdisciplinary Journal of Contemporary Research in Business*, 392.
- Tansky, J. W., & Heneman, R. (2003). Guest editor's note: Introduction to the special issue on human resource management in SMEs: A call for more research. *Human resource management*, 42(4), 299.
- Tien, B. D. (2013). Factors influencing employee loyalty directly and indirectly through job satisfaction—A study of banking sector in Ho Chi Minh City. *International Journal of current research and academic review*, 1(4), 81-95.
- Umoh, G. I., Amah, E., & Wokocho, I. H. (2014). Employee Benefits and Continuance Commitment in the Nigerian Manufacturing Industry. *OSR Journal of Business and Management*, 16(2), 69-74.
- Walker, R. A. (2005). Public Management Reform and Organizational Performance: An empirical assessment of the UK labor Government's Public Service Improvement Strategy *Journal of Policy Analysis and Management: The Journal of the Association for Public Policy Analysis and Management*, 25(2), 371-393.
- Woodrow, C., & Guest, D. E. (2014). When good HR gets bad results: Exploring the challenge of HR implementation in the case of workplace bullying. *Human Resource Management Journal*, 24(1), 38-56.
- Wright, P. M., & Nishii, L. H. (2007). Strategic HRM and organizational behaviour: Integrating multiple levels of analysis.
- Zahorsky, S. (2014). Simulation in residency training: A review. *Creative Education*, 5(01), 31-49.
- Zakaria, N. (2013). Enhancing organizational performance of Malaysian SMEs through human resource management (HRM) practices and organizational innovative capability: A proposed framework.
- Zheng, C., Morrison, M., & O'Neill, G. (2014), an empirical study of high performance HRM practices in chines SMEs, *international journal of human resource management* 17(1) 1772-1803.
-

SSIRC 2023-179**HOW HAS COVID-19 AFFECTED THE MANAGEMENT OF EMERGING FARMING OPERATIONS IN THE NORTH WEST PROVINCE, SOUTH AFRICA?****J.N. Lekunze**

North-West University, South Africa

T.B. Modise

North-West University, South Africa

ABSTRACT

The farming system in South Africa is labour-intensive, and the management of the mobility of workers across districts is key to maintaining production levels of farming operations. South Africa's farming operations are characterized by peak seasonal labour demand and labour-intensive activities. COVID-19 restrictions may have harmed emerging farming operations both in the short and long term. This study was conducted during the COVID-19 pandemic period (March 2020 to October 2022) and primary data was collected from a sample of 150 emerging farmers out of a population of 1,768 farmers. The data was analysed using both descriptive and inferential statistical methods. Major findings were that; most emerging farmers (65%) were 56 years and older and were most at risk of being infected during the COVID-19 pandemic. The results also indicated that most emerging farmers do not have tertiary education qualifications while only 37 % of them have experience in farming. A total of 69% of the emerging farmers have not received any form of support from the state before the outbreak of the pandemic whilst 28% received grants and the remaining 3% have received informational support from the government. The study concludes that emerging farmers in South Africa were already constrained before the outbreak of COVID-19. The COVID-19 outbreak exacerbated emerging farming operational challenges and exposes the management challenges of emerging farming operations at the local level in South Africa. The study recommends the development of context response guidelines to the management disruptions in emerging farming operations in the local *area*.

KEYWORDS: COVID-19, emerging farming operations, factor analysis, impact, South Africa**INTRODUCTION**

Discussions on how COVID-19 will affect food systems, emerging farming operations, and mobility of farm labour in South Africa is ongoing explained Cotula, (2021); PLAAS, (2020) and Schmidhuber, (2020). PLAAS (2020) and Schmidhuber (2020) opined that for South Africa and the world over, there was a great deal of anxiety and speculation about how the COVID-19 pandemic could impact the food system, farming operation, and mobility of farm labourers. COVID-19 disrupted employment in the agricultural sector, particularly affecting seasonal agricultural workers who were often migrant workers and are typically employed by emerging farmers (Benos, Tsaopoulos & Bochtis, 2020).

The rapid spread of COVID-19 resulted in many countries across the world in the first quarter of 2020 closing their border and restrictions on movements within and across countries borders. The effect of these restrictions in the agricultural sectors was two folds. (1) restriction in the movement of farm workers (migrant labourers) from the neighbouring countries into South Africa leading to disruptions in farming operations (planting and harvesting) and (2) a decline in the production of emerging farming products. These challenges were further exacerbated by disruptions in the supply chain of agricultural inputs thereby limiting access to seeds, machinery spares, fertilizers, and agricultural financing (Nchanji and Lutomia, 2021).

The South African farming system is labour-intensive, and the mobility of farm workers across districts and borders is key to maintaining production levels (Visser and Ferrer, 2015). Farming nations worldwide including South Africa are normally characterized by peak seasonal labour demand and the intensity of labour demand is severe in countries with labour-intensive systems of farming. As a result, there was a direct relationship between output and labour shortages in agriculture in South Africa because of restrictions on cross-border mobility and lockdowns (Biden, 2021). Furthermore, a shortage of seasonal workers may result in decreased planted area and agricultural outputs, as De la Fuente *et al.*, (2019) found in a study on rice production after the Ebola outbreak in Liberia.

Gelderbloom (2003) defines an emerging farmer in South Africa as a person who wants to farm successfully, but who needs help from an outside facilitator due to physical, mental, and socioeconomic limitations. COVID-19 and government responses across the world made it difficult for emerging farmers to sell existing stocks thereby impacting farms' viability and resulting in distressed land sales (Cotula, 2021) among emerging farmers in South Africa.

Furthermore, the COVID-19 pandemic may have also led to shortages of agricultural machinery and machinery spares due to the closure of most industrial facilities. Buxton (1996) and Seleiman *et al.*, (2017) in a previous study before the outbreak of COVID-19 highlight that, the delay in the import of tractor parts affects ECT the harvesting process, which may result in poor quality crops. This explanation was true during the outbreak of COVID-19 (2020-2022) as emerging farmers' ability to make a profit and repay their production loans was seriously hampered.

But the extent of the impact of COVID-19 has still not been fully understood at present. In a study by the Food and Agriculture Organization (FAO, 2020) report, it was found that restrictions on import/export activities, as well as restrictions on local movements, have prevented emerging farmers from accessing general production inputs. The restrictions also limit the marketing opportunities available to emerging farmers in South Africa. Furthermore, the limited availability of important livestock farming materials and facilities such as feed materials and ingredients, replacement stocks, drugs and vaccines, and other livestock farming inputs were also observed during the COVID-19 outbreak in South Africa. (Hashem, González-Bulnes & Rodríguez-Morales, 2020). This study, therefore, assumes emerging farmers did suffer disruptions in their operations during the outbreak COVID-19 and government response strategies exacerbated the crisis leading to the current food inflation in South Africa.

Moreover, with the concomitant losses of income, many farm workers had to be laid off and their ability to buy food was severely impinged. The lockdown measures that restricted gatherings and encouraged people to stay at home resulted in the closure of restaurants. COVID-19 lockdowns may have impacted the transportation of food from emerging farmers' farms to various restaurants and the lockdown measures may have resulted in emerging farmers facing difficulties in selling their produce in local markets, schools, or restaurants. Furthermore, extension services were restricted due to restrictions in mobility and social distance. The situation was also aggravated by agricultural extension officials who tested positive, leading to the closure of service support offices with some of the officials going into isolation (Nwafor & Ngoga, 2020).

The impact of COVID-19 on agriculture, food, and other related industries or business ventures was certain, but the extent of the impact is still to be fully understood. Specifically, the extent to which the pandemic impacted emerging farming operations in South Africa has not been fully explored. Though there was a study by Wegrif(2021) that focuses on the impact of COVID-19 on black farmers in general, the study failed to contextual the differential impact at a local when compared to national levels within South Africa.

PROBLEM STATEMENT

COVID-19 did impact emerging farmers' businesses in South Africa (Govender, 2020). According to Wegerif (2022), access to markets by farmers and or customers was disrupted, and emerging farmers faced various challenges due to restrictions imposed by the government. Torero (2020) reveals that the impact of the closure of borders caused disruptions in the global food supply chain with both general and local products such as red meat, poultry products, dairy products (including milk), and vegetable products from emerging farmers remain unsold. There were also surpluses due to stockpiles and Nwafor and Ngoga (2020) add that COVID-19 lockdowns have impacted the supply of agricultural products and inputs, while Seleiman et al. (2017) highlight that the delay in the importation of tractor parts may affect the harvesting process, which may have resulted in poor quality crops.

Several emerging farmers who produce vegetables for restaurants also had to discard them, and diesel shortages at the time of planting may have disrupted farming operations due to the backlog at refineries caused by the imposition of restrictions by the government. Makube (2020) opines that the impact of the COVID-19 pandemic on fresh produce was negative, as hawkers, fast-food outlets, and restaurants were restricted from trade, and emerging farmers were bound to be impacted by these restrictions. To date, many overlapping and amplifying dynamics have emerged that affect food systems, food security, and nutrition. These include loss of income and livelihoods; food price inflations, growing inequality; social distress among households; changing food availability patterns; and food price heterogeneity in localized settings (Klassen & Murphy, 2020; Clapp & Moseley, 2020; Laborde Programs et al., 2020).

At the beginning of the COVID-19 outbreak, food prices in several countries including South Africa were responding to the pandemic as panic-buying crept in, which subsequently led to short-term price increases. However, Hernandez et al. (2020) emphasise that COVID-19 may have also resulted in increases in the prices of essential agricultural commodities with special emphasis on staple cereals. Furthermore, not all the outcomes of the COVID-19 pandemic outbreak were

positive or negative for emerging farmers. Setumo (2020) outlines the opportunities and threats emerging farmers faced during the COVID-19 pandemic in South Africa and argues that the pandemic had both positive and negative effects on farmers worldwide. However, there is a need to establish its impact on specific environments or regions, particularly in South Africa, where emerging farmers are key contributors to the maintenance of local food security in the country. Thus, this study intends to explore the impact of COVID-19 on the operations of emerging farmers at a district level in South Africa.

Theoretical framework

According to Section 1 of the Disaster Management Act 57 of 2002 (DMA), a "disaster" is defined as an ongoing or unexpected, localised, or widespread, natural, or human-caused occurrence (Disaster Management Act of 2002). For the COVID-19 pandemic to qualify as a disaster, it must be an ongoing or unexpected, localised, or widespread, naturally occurring or caused by a man-made event that poses a threat of sickness or death that is greater than the available means to the affected population. Indeed, the Centre for Disease Control and Prevention (CDC, 2022) categorises COVID-19 as a disaster alongside others, including severe weather and natural diseases. In this vein, the discussion below provides a perusal of relevant theories on managing disasters and demonstrates their application to the line of inquiry as a conceptual foundation that propels this research.

Disaster management is seen as one of the key elements of disaster mitigation, and as a successful response when one occurs. However, disaster management is still an extremely new profession and scientific discipline, even though catastrophes have always been associated with humanity (Asgary, 2006). The four main conceptions of disasters management include managing the consequences of the following: 1) Acts of fate/acts of God; (2) Acts of nature; (3) Joint effects of nature and society; and (4) Social construction—events that seem to have followed one another over the years. Acts of fate or acts of God, according to Lindell, Prater, and Perry, (2006), are circumstances that frequently result from uncontrollable causes or circumstances that are unfathomable to humans. Another interpretation of this concept holds that many of these catastrophes are the result of divine vengeance for human shortcomings (Lindell, Prater, & Perry, 2006, p.5)

Research design and methodology

This study utilised a survey research design that corresponds with a positivist research philosophy and a quantitative research approach was followed. The target population for this study comprises all farmers classified as emerging farmers by the Department of Rural Development and Land Reform in the North-West (NW) Province of South Africa (www.dalrrd.gov.za, n.d.). Of the total population of emerging farmers in the NWP, only emerging farmers operating in the Ngaka Modiri Molema District of the province were considered for this study. This study uses the criteria by Senyolo (2007) in categorising emerging farmers as farmers who come from previously disadvantaged backgrounds and are attempting to participate in commercial markets and have intentions to produce and sell more of their produce. The sampling frame for this study included 1 768 emerging farmers and the samples size was determined using the Naassiuma, 2000 formula:

$$S = \frac{NC^2}{C^2 + (N-1)e^2}, \text{ where}$$

S = sample

N = population size

C = coefficient of variation, which is 50%

e = error margin, which is 0.05

$$\text{Sample size} = \frac{1768 \times 0.5^2}{0.25 + (1677)0.0025} = 101$$

To ensure that the response rate was sufficient in line with the sample size, the researcher administered 150 questionnaires to emerging farmers.

In this study, a semi-structured questionnaire survey was used to collect data from respondents over a month timeframe. Data quality check was performed using triangulation and the validity of the data collection instrument was ensured by consulting with a statistician if the items in the questionnaire address the research problem, research objectives, and research questions. To confirm the reliability of the instrument, a standardised factor analysis as prescribed by E-Views was conducted. This was confirmed by testing the questionnaire on ten emerging framers who did not take part in the study. The results were analyzed and discussed with a statistician, and amendments were made to the questionnaire where necessary in a bid to ensure the consistency of the data collected. The collected data was analyzed using E Views. One approach was to examine findings with a pre-defined framework that reflects one's aims, objectives, and interests.

Descriptive measures were used to summarise the nature of emerging farmers and their characteristics to lay the foundation for the challenges these emerging farmers are facing during the COVID-19 disruption. In this study, descriptive analysis was done using frequencies, mean, standard deviation, and percentages. Furthermore, exploratory factor analysis (EFA) was used in determining the nature of underlying patterns among many items (Hair et al., 2006). The main purpose of factor analysis was to (1) group variables that have something in common, (2) reduce the set of variables into a smaller number of underlying factors that account for as many variables as possible, (3) dedicated structures and understanding commonalities in the relationships between variables and (4) identifying where different variables are addressing the same underlying construct. In the study, Kaiser's criteria were applied for performing factor extraction and the five-step approach involved in the factor analysis process to test for suitability, namely diagnostic tests, the correlation matrix, the number to be retained, factor rotation, and an interpretation of the results were done.

Results presentation and discussion

The results are presented using two approaches. The first is a summation approach where the demographic characteristics of emerging farmers using gender, age of the farmer, level of education, duration in farming, COVID-19 support received from the government, and farm size measured in hectares were described. The gender composition of respondents was analysed, and the findings are presented in Table 1. The result shows that most respondents (constituting 88%) were males compared to 12% are females. This finding indicates that males still dominate

emerging farming despite most of the adults being females. This finding concurs with that of Babatunde, Omoniwa & Ukemenam (2018) who found in a study that, agriculture is a male-dominated industry where the proportion of female farmers is significantly lower than that of male farmers. Similarly, findings have been confirmed by Tibesigwa and Visser (2016) who note that in South Africa, there are few women farmers compared to their male counterparts. These researchers have associated the dominance of males over females in the agricultural sector in South Africa to reinforce gender roles where agricultural activities are perceived to be roles for men leading to lower levels of female participation in the industry (Bahta, Jordaan & Muyambo, 2016). The study results corroborate the findings by Tibesigwa and Visser (2016) and Bahta, Jordaan, and Muyambo (2016) and confirm that most of the emerging farmers in South Africa are males even at a district level.

Table 1: Gender, age, and farm size of respondents

| Gender composition | | |
|---------------------------|---------------|-------------------|
| Description | Number | Percentage |
| Male | 132 | 88% |
| Female | 18 | 12% |
| Total | 150 | 100% |
| Age of respondents | | |
| 18-30 years | 3 | 2% |
| 31-45 years | 14 | 9% |
| 46-55 years | 36 | 24% |
| Above 55 years | 97 | 65% |
| Total | 150 | 100% |
| Farm size | | |
| Smaller than 1 ha | 0 | 0% |
| 1 - 5 ha | 2 | 1% |
| 6 - 10 ha | 1 | 1% |
| 10 – 20 ha | 0 | 0% |
| Larger than 20 ha | 147 | 98% |
| Total | 150 | 100% |

Source: Researchers' data

Furthermore, the age of emerging farmers was analysed to ascertain if knowledge, experience, skills, and expertise in agriculture are observed to increase with the age of the farmers. The results are presented in Table and show that most of the respondents, constituting 65%, are 56 years and older, followed by the 46-55 (24%) years age bracket compared to 9% of the 31-45 years old bracket. The minority (2%) were of ages 18 to 30 years. The farming population in South Africa is aging with most of the farming being a part-time occupation for retirees (O'Meara, 2019). Senyolo, Long, Blok, and Omta (2018) have also confirmed in a previous study that the average age of the farmers is 62 years. Similarly, Zagata, Hádková, and Mikovcová (2015) in an earlier study explained that in the United States of America, the average age of farmers is 55 years, with the younger generations less likely to take up agricultural initiatives. The study findings are aligned with studies by Senyolo, Long, Blok, and Omta (2018) who found that most of the emerging farmer population is aging and there is a strong association between age, knowledge, experience, skills, and expertise in agriculture.

Farm sizes measured in hectares were also used as a proxy for decision-making and determination of whether a farmer intends to grow and become commercial or to remain emerging. The result of the size of a farm is presented in Table 1 and shows the composition of farm sizes at the district level owned by emerging farmers. Data reveals that most of the emerging farmers (98%) have farm sizes of 21 or more hectares compared to 1% of emerging farmers with farm sizes of between 6 to 20 hectares while only 1% of emerging farmers in the district have farm sizes of 5 hectares or less in size.

Education is crucial for agricultural productivity and growth. Formal education opens the minds farmers of two information, adoption of technologies, and acceptability of new methods of farming. Figure 1 indicates the level of formal education by emerging farmers in the district. Figure 1 shows that most emerging farmers (56%) have a Secondary School Certificate, this is followed by 25% with a Primary School Certificate and 15% holding a Diploma. A further 4% hold a First Degree and another 4% have no formal education. The remaining 1%, which constitutes the minority of the respondents, has a master's degree or higher. Whether the certificates were in the field of agriculture was not determined. This finding shows that most emerging farmers do not have tertiary education qualifications. If education is considered as a proxy for the adoption of new technologies, then the duration of stay an emerging farmer remains emerging without progressing to become commercial can be attributed to their level of formal education at the district level in South Africa.

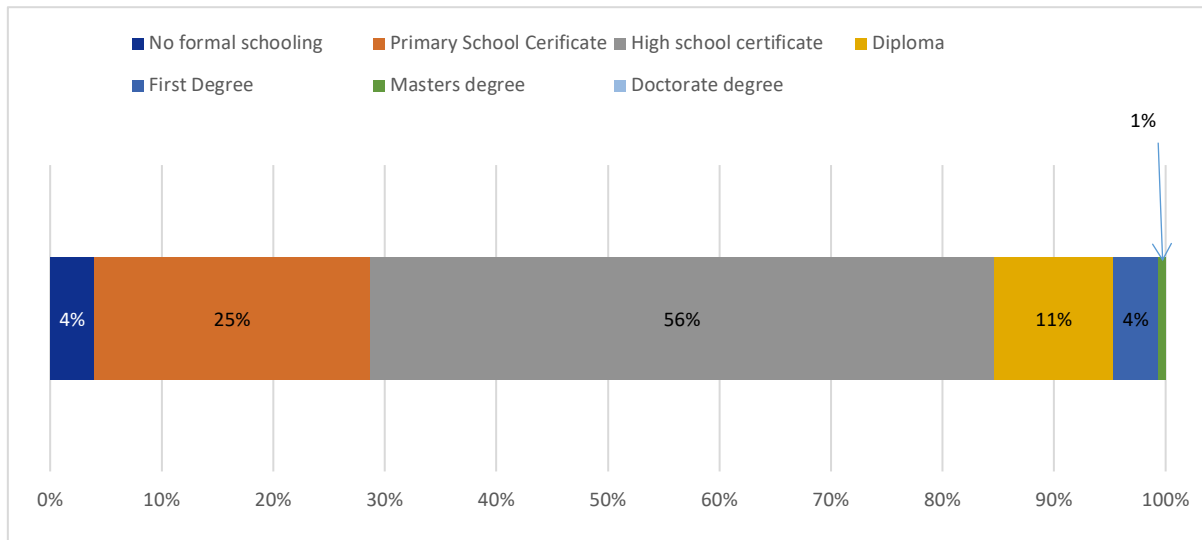


Figure 1: Educational levels of emerging farmers

This finding has been confirmed by Tijjani, Nabinta, and Muntaka (2015) who note in a study that, most of the emerging farmers do not have higher educational qualifications. But a study by Paltasingh and Goyari (2018) found that about 25% of farmers have degrees while Tijjani, Nabinta, and Muntaka (2015) found that fewer than 15% of farmers in Nigeria have post-secondary qualifications. The study’s findings indicate that most emerging farmers have a secondary education certificate.

Furthermore, experience in farming measured in terms of the duration an emerging farmer has been in operation was analysed. The underlying assumption here was that farmers are mostly taught via on-the-job training and may not require a degree. This highlights the importance of experience in the sector (The National skills development handbook 2010). Figure 2 indicates the length of stay in farming operations by an emerging farmer as a measure of experience in farming.

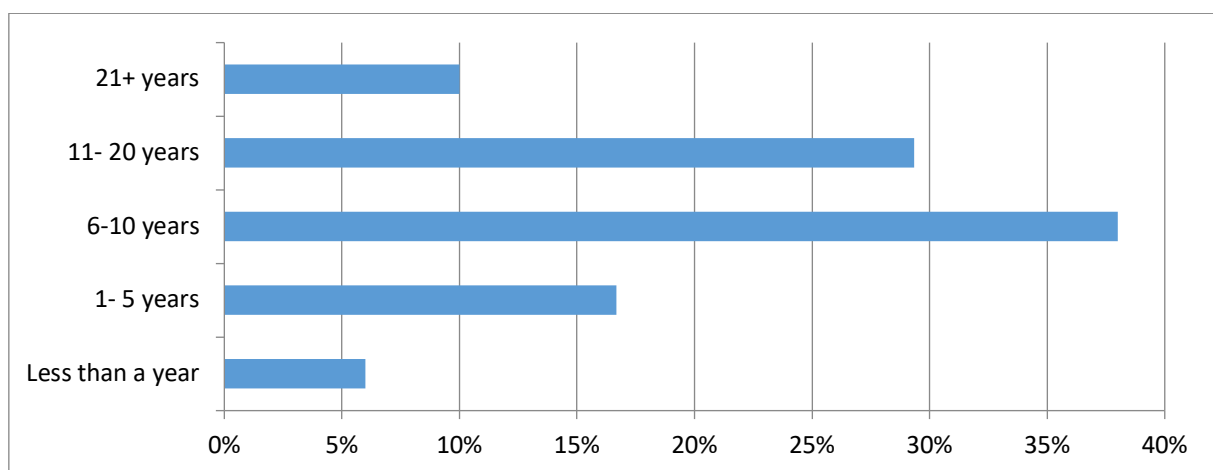


Figure 2: Experience in farming

From the figure, most of the emerging farmers in the district (37%) have experience in farming between 6 to 10 years. This is followed by 29% of farmers who have experience of between 11 to 20 years. A further 17% have experience in the farming of between 1 to 5 years, whilst 10% have

more than 21 years of experience in farming. The remaining 6% have less than a year of experience in farming. This finding is supported by a study that found that most of the black farmers in South Africa have significant work experience in the industry acquired through hands-on training (Khapayi & Celliers, 2016). The findings therefore aligned with findings by Khapayi and Celliers (2016) in that most emerging farmers in the same district in the North-West province have experience in farming which ranges between 6 to ten years.

Analysis of the COVID-19 support received by emerging farmers from the state to date was discussed. Findings reveal that, for emerging farmers to be successful, they need to be supported by other stakeholders, including the government. Figure 3 indicates the nature and type of support received from the government to date following the outbreak of COVID-19 by emerging farmers in the district.

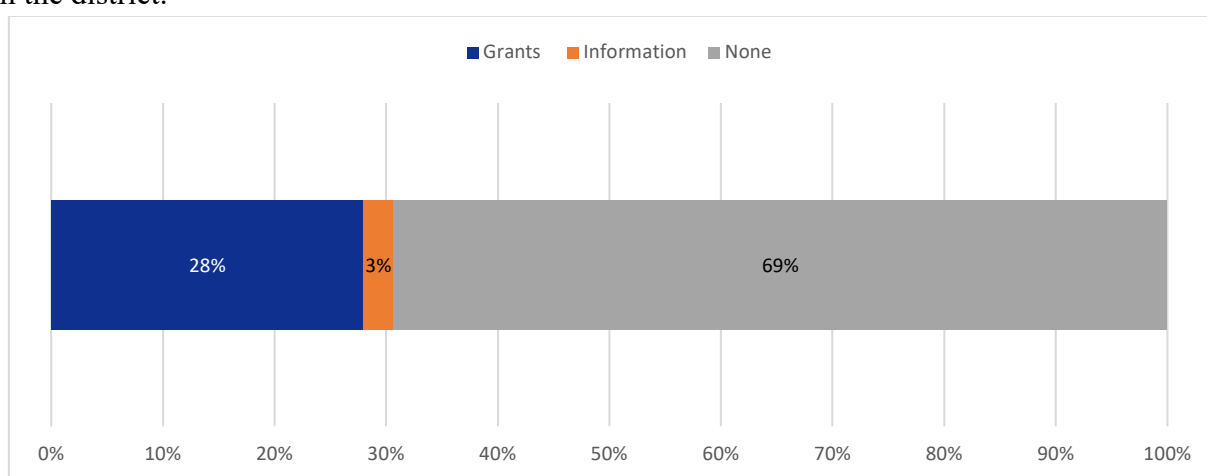


Figure 3: COVID-19 support received from the state to date

From the figure, the majority of emerging farmers, constituting 69% of the sample, have not received any form of support from the state, whilst 28% received grants and the remaining 3% received information support from the government. The support from the government to these farmers was inadequate given the disruptive nature of COVID-19 on both the demand and supply chain in the agricultural sector of South Africa. This finding has been confirmed in a similar study by Wegerif (2020) which indicates the exposure of farmers to fluctuations in yields, revenues, and prices caused by the outbreak of the pandemic.

Inferential analysis

Exploratory Factor Analysis (EFA) was performed and to ensure estimates and factor analysis were done accurately, suitability tests were done. The first test was a **correlations analysis to establish if an** association exists among variables (Items) and to determine the degree of linear association between the variables(items). If the correlations are 0.3 and above, the correlation threshold for factor analysis is considered adequate. Hence, there were correlations in our calculation with values greater than 0.30 indicating factor analysis is possible for this study.

Model adequacy checking is important to ensure that the analysis conducted by a study draws accurate conclusions about the data (Duchêne, Duchêne & Ho, 2018). The Kaiser Measure of Sample Adequacy test was performed to analyze the inter-correlation in the model and Table 2 indicates the model adequacy test for this study. The Kaiser Measure of Sample Adequacy value

for the study was 0.76 and Okello, Nasasira, Muiru and Muyingo (2016) stated that a Kaiser Measure of Sample Adequacy (KMSA) value than 0.8 are considered adequate, whilst values below 0.60 are inadequate. The present model is adequate, as its Kaiser Measure of sample adequacy is above 0.6. Furthermore, the Kaiser criterion was used to extract the components for this study and presented in Table 2.

Table 2: Kaiser Measure of Sample Adequacy and component extraction

| Kaiser Measure of Sample Adequacy | | | | |
|--|--------------|-------------------|-------------------|-------------------------|
| Description | | Value | | |
| Kaiser's MSA | | 0.757174 | | |
| Component extraction | | | | |
| Number | Value | Difference | Proportion | Cumulative value |
| 1 | 17.02426 | 10.08131 | 0.2102 | 0.2102 |
| 2 | 6.942951 | 3.414247 | 0.0857 | 0.2959 |
| 3 | 3.528704 | 0.167724 | 0.0436 | 0.3395 |
| 4 | 3.36098 | 0.421972 | 0.0415 | 0.3809 |
| 5 | 2.939008 | 0.375007 | 0.0363 | 0.4172 |
| 6 | 2.564001 | 0.155972 | 0.0317 | 0.4489 |
| 7 | 2.408029 | 0.331367 | 0.0297 | 0.4786 |
| 8 | 2.076662 | 0.062055 | 0.0256 | 0.5043 |
| 9 | 2.014607 | 0.124296 | 0.0249 | 0.5291 |
| 10 | 1.890311 | 0.060174 | 0.0233 | 0.5525 |
| 11 | 1.830137 | 0.091739 | 0.0226 | 0.5751 |
| 12 | 1.738398 | 0.301234 | 0.0215 | 0.5965 |
| 13 | 1.437164 | 0.029016 | 0.0177 | 0.6143 |
| 14 | 1.408148 | 0.05339 | 0.0174 | 0.6316 |
| 15 | 1.354758 | 0.083323 | 0.0167 | 0.6484 |
| 16 | 1.271435 | 0.073429 | 0.0157 | 0.6641 |
| 17 | 1.198005 | 0.039425 | 0.0148 | 0.6789 |
| 18 | 1.15858 | 0.064989 | 0.0143 | 0.6932 |
| 19 | 1.093591 | 0.048647 | 0.0135 | 0.7067 |
| 20 | 1.044944 | 0.055987 | 0.0129 | 0.7196 |
| 21 | 0.988957 | 0.028778 | 0.0122 | 0.7318 |

Source: Researchers' data

From Table 2, twenty (20) items with Eigen values greater than 1 accounted for 71% of the total variance indicating strong relationships in the model reflected by higher values of the total variance. Therefore, there are strong relationships among the variables in the model. As such, 20 items were retained for analysis.

The rotated factor patterns on agricultural productivity challenges were performed and values greater than 0.30 are regarded as sufficient to explain the challenges emerging farmers are facing because of the COVID-19 result. The factor scores were computed as well as the indeterminacy scores which are reflected by the minimum correlation and the loading values. The acceptable level of loading values in factor analysis is 0.30 according to Howard (2016). This study utilized exploratory rotational factor analysis with variable loadings for the factors, following the oblique rotation criteria by Rummel (1970). Findings explain Objective 2: “Identify COVID-19 related challenges on the agricultural productivity of emerging farmers” as depicted in Table 3.

Table 3: Rotated factor patterns on agricultural productivity challenges

| Item | F1 | F2 | F3 | F4 | F5 | F6 |
|---|----------------|---------|----------------|---------|---------|---------|
| Emerging farmers are facing challenges in accessing the information on inputs | 0.32144 | 0.12971 | -0.0527 | 0.18998 | 0.26001 | 0.12411 |
| Emerging farmers are facing challenges in accessing input from domestic suppliers | -0.0372 | -0.0145 | 0.63963 | 0.00389 | -0.1056 | 0.03624 |
| Emerging farmers are facing challenges in importing inputs from suppliers outside South Africa | 0.03445 | 0.15048 | 0.25683 | 0.04923 | 0.13574 | -0.1597 |
| Emerging farmers are facing challenges with market information | 0.55468 | 0.22154 | -0.0037 | 0.11727 | 0.1709 | -0.0405 |
| Emerging farmers are facing challenges with disruptions in the transportation of inputs | -0.0486 | -0.0239 | 0.33395 | -0.0191 | -0.1323 | -0.067 |
| Emerging farmers are facing challenges with disruptions in the transportation of produce to markets | 0.10272 | -0.025 | 0.78842 | 0.05357 | 0.12646 | -0.0793 |

| Item | F1 | F2 | F3 | F4 | F5 | F6 |
|--|----------------|---------|---------|---------|----------------|---------|
| Emerging farmers are facing challenges with disruptions in the sales of produce (products) | 0.54918 | 0.15373 | 0.02862 | 0.0634 | -0.1453 | 0.12941 |
| Emerging farmers are facing challenges with disruptions in the export of produce | -0.0123 | 0.0076 | -0.0218 | -0.0079 | 0.35616 | 0.23458 |
| Emerging farmers are facing challenges with an increase in the transportation costs of inputs | 0.38093 | -0.0929 | 0.25974 | 0.12279 | 0.08952 | 0.10469 |
| Emerging farmers are facing challenges with an increase in the transportation cost of products to market | 0.675 | 0.14991 | -0.007 | 0.0539 | 0.1085 | 0.08115 |
| Emerging farmers are facing challenges with increasing spoilage in produce | 0.58653 | 0.34309 | 0.22807 | 0.00724 | 0.14969 | -0.0754 |
| Emerging farmers are facing challenges with delays in the planting of crops | 0.634 | 0.25735 | -0.0543 | 0.08897 | 0.02324 | -0.0762 |
| Emerging farmers are facing challenges with delays in the harvesting of crops | 0.44527 | -0.1035 | -0.1225 | 0.10215 | -0.1168 | 0.246 |
| Emerging farmers are facing challenges with the storage of harvested crops | 0.53489 | 0.204 | -0.0876 | 0.0328 | 0.11906 | 0.24004 |
| Emerging farmers are facing challenges with decreasing produce prices | 0.46694 | 0.19094 | -0.2915 | 0.12512 | 0.19034 | -0.0687 |

| Item | F1 | F2 | F3 | F4 | F5 | F6 |
|---|----------------|----------------|----------------|---------|---------------|---------|
| Emerging farmers are facing challenges with decreasing sales volumes of produce | 0.51985 | 0.12798 | -0.0033 | 0.02362 | 0.19443 | 0.03417 |
| Emerging farmers are facing challenges with disruptions in the equipment parts | 0.22792 | 0.33235 | -0.0307 | 0.10587 | 0.4501 | 0.06013 |
| Emerging farmers are facing challenges with the repair of broken equipment | 0.19968 | 0.1126 | -0.3486 | -0.0544 | 0.15288 | -0.0872 |
| Emerging farmers are facing challenges with loan repayments | 0.109 | 0.98082 | -0.0584 | 0.00366 | 0.05225 | 0.04056 |
| Emerging farmers are facing challenges with loan defaults | 0.12851 | 0.97943 | -0.0111 | -0.0023 | 0.00417 | 0.07185 |
| Emerging farmers are facing challenges with increasing rates | 0.21551 | 0.34685 | -0.2523 | 0.18653 | 0.28622 | 0.21116 |
| Minimum correlations | 0.77722 | 0.97469 | 0.67354 | 0.9987 | 0.38833 | 0.46575 |

Source: Researchers' data

Input factors

From the table, at its minimum, the input factor has a 0.777 correlation with the agricultural productivity challenges variables. Therefore, there is a strong link between input factors and the productivity challenges experienced by emerging farmers during the COVID-19 pandemic. Emerging farmers were confronted by challenges ranging from accessing the information on inputs, market information, disruptions in the sales of produce (products), increasing spoilage in produce, delays in the planting of crops, delays in the harvesting of crops, and storage of harvested crops. decreasing produce prices and decreasing sales volumes of produce. This finding is consistent with that of Siche (2020) found a diverse range of challenges faced by farmers during the outbreak of the pandemic led to losses in farm produce. Furthermore, Gu and Wang (2020) acknowledge that many farmers experienced severe and significant challenges due to the COVID-19 pandemic, which had a direct impact on farm productivity.

Loans and grants for farmers

The minimum correlation of 0.97469 shows that at its minimum, the correlation between two variables on loans and grants for farmers was 0.97. The variables that heavily load the factor are an indication that emerging farmers are facing challenges with loan repayments, loan defaults, and increasing rates. The COVID-19 pandemic has hurt the revenue earned by farmers which has significantly compromised their ability to service their debts (Timilsina et al., 2020). Farmers were considered risky clients, loans to farmers came at very high-interest rates and this impacted negatively on the financial stability of the farm business (Ker, 2020). Farm operations are dependent on financing, and during the COVID-19 pandemic, emerging farmers experienced difficulties in accessing funds from banks and the government (Timilsina et al., 2020). This finding as shown in Table 3 supports this assertion by Timilsina et al., (2020) who have demonstrated in their study that financial factors pose significant constraints to agricultural productivity.

Market inputs and equipment maintenance

The minimum correlation of 0.67354 as shown in Table 3 implies that at its minimum, the correlation between market inputs and equipment maintenance variables was at 0.67354. The variables that heavily load the factor include emerging farmers who face challenges in accessing input from domestic suppliers including spares to repair broken equipment. Owing to the COVID-19 pandemic, access to inputs was limited to farmers, both in physical and financial terms (Middendorf et al., 2020). Emerging farmers were finding it difficult to access inputs because the costs of the inputs increased significantly as production and supply chain disruptions were experienced by input suppliers (Worku & Ülkü, 2021). The budgets of the farmers were constrained, and a significant number of farmers cannot maintain their equipment (Middendorf et al., 2020). The lower productivity recorded during the COVID-19 pandemic was attributed to a lack of machinery on farms where farmers cannot service and maintain them, often because of the financial burden imposed by the pandemic (Timilsina et al., 2020). This result implies that there is a need for measures to address input and equipment maintenance challenges to ensure improvement in emerging farming productivity.

Harvesting challenges

The harvesting factor has a minimum correlation of 0.9987 as shown in Table 3 which is above the minimum of 0.3. This implies that harvesting was significant in explaining the productivity challenges. However, none of the variables heavily loaded on the factor, implying that the factor was not statistically significant.

Marketing and exports

The minimum correlation of 0.38833 of Factor 5 implies that the correlations between market and export variables were strong as shown in Table 3. This is an indication that emerging farmers face challenges with disruptions in the export of products and disruptions in the supply of equipment spares which is explained by the heavy loading of these factors. Most countries imposed hard lockdowns and cross-border mobility of goods and people was restricted, effectively closing the export market for many industries (Tougeron & Hance, 2021). Export volumes for farm products fluctuated significantly during the early phases of the pandemic and affected farming operations (Saha & Bhattacharya, 2020). Export sales volumes of the farmers significantly decreased, with

some farmers forced to reduce their prices to sell farm produce locally and internationally (Tougeron & Hance, 2021) given the perishable nature of agricultural produce. This finding implies that the market and export challenges need to be addressed to improve the productivity and revenue of farming operations.

Transport and movement of inputs and output

Factor 6 had a minimum correlation of 0.46575 as shown in Table 3 which is above the required 0.3. However, none of the variables heavily loaded the factor, and thus the agricultural productivity challenges were not explained by the transport and movement of inputs and outputs.

Discussion of findings

The COVID-19 pandemic has harmed the agricultural sector. These negative effects have been severe on emerging farmers. The study's findings show that challenges affecting agricultural productivity due to the pandemic ranges from the accessing of information on inputs, and market information to disruptions in the sales of produce (products), increasing spoilage in produce, delays in the planting of crops, and delays in the harvesting of crops. In addition, further challenges identified include storage of harvested crops and decreasing product prices, coupled with decreasing sales volumes of produce, loan repayments loan defaulting, and increasing rates. Moreover, emerging farmers faced challenges in accessing input from domestic suppliers, with problems to repair broken equipment, disruptions in the spare supplies, and interruptions in the export of produce, all of which are engrossed among the challenges faced in agricultural productivity of emerging farmers at a district level in South Africa.

The availability of farm workers was also significantly impacted by the pandemic. Remuneration or non-permanent of farm workers and remuneration of permanent farm workers was likewise seriously affected as emerging farmers' margins suffered. The effects of COVID-19-related challenges on the margins of emerging farmers were found to increase in terms of total production costs of farming operations during COVID-19 and a decline in total income from sales of agricultural products. The study's findings show that not only did COVID-19 disrupt farming operations in general, but it also disorganised transportation in the farming sector. COVID-19 guidelines/protocols by the state did not work for emerging farmers as reflected in the factor loading. Furthermore, the study's results show that COVID-19 guidelines/protocols by the state neither benefited nor support emerging farming operations at district levels.

CONCLUSION AND RECOMMENDATIONS

The study has shown that, from emerging farmers' perspective, the challenges on farm products are diverse, and therefore measures needed to overcome these challenges should be multifaceted and range from short-term to long-term. The study recommends that more government support should have been provided to emerging farmers to mitigate the negative effects of the pandemic on their farm operations and sustainability because this has implications for food security and employment levels in South Africa. Furthermore, the study recommends that emerging farmers should explore contract options to hedge against price fluctuations. Automation and adoption of technology to mitigate against human resources shortages brought about by the pandemic are suggested. The study also recommends transparent market operations through the provision of timely and accurate information to the farmers. Emphasis should be on collaboration among

emerging farmers and role-players within the sector to overcome the challenges brought about by the pandemic.

REFERENCES

Asgary, A., 2006. 'Theorizing disaster and emergency management', in C. Raj Kumar & D.K. Srivastava (eds.). *Tsunami and disaster management: Law and governance*, Thomson, Hong Kong, p. 42.

Babatunde, R.O., Omoniwa, A.E. and Ukemenam, M., 2018. Gender inequality in schooling among children and the implications for livelihood of farming households in Kwara State, Nigeria. *Sarhad Journal of Agriculture*, 34(3).

Bahta, Y.T., Jordaan, A. and Muyambo, F., 2016. Communal farmers' perception of drought in South Africa: Policy implication for drought risk reduction. *International Journal of Disaster Risk Reduction*, 20, pp.39-50.

Benos, L.; Tsaopoulos, D.; Bochtis, D., 2020. A review on ergonomics in agriculture. Part I: Manual Operations. *Appl. Sci.* 2020, 10, 1905.

Benos, L.; Tsaopoulos, D.; Bochtis, D.A., 2020. Review on ergonomics in agriculture. Part II: Mechanized Operations. *Appl. Sci.* 2020, 10, 3484.

Biden, J.R. (2021). *National Strategy for The COVID-19 Response And Pandemic Preparedness; January 2021*. New York: WW Norton.

Buxton D. R., 1996. Quality-related characteristics of forages as influenced by plant environment and agronomic factors. *Anim. Feed Sci. Technol.* 59: 37-49. [https://doi.org/10.1016/0377-8401\(95\)00885-3](https://doi.org/10.1016/0377-8401(95)00885-3)

Clapp, J. & Moseley, W., 2020. This food crisis is different: COVID-19 and the fragility of the neoliberal food security order, *The Journal of Peasant Studies*, 47:7, 1393-1417, DOI: [10.1080/03066150.2020.1823838](https://doi.org/10.1080/03066150.2020.1823838)

Cotula, L. 2021. Towards a political economy of the COVID-19 crisis: Reflections on an agenda for research and action. *World Development*, p.105235. doi: 10.1016/j.worlddev.2020.105235

De la Fuente, A., Jacoby, H.G., & Gabriel Lawin, K., 2019. Impact of the West African Ebola epidemic on agricultural production and rural welfare: evidence from Liberia (Working Paper No. 8880), Policy Research Working Paper. World Bank, Washington, D.C.

Disaster Management Act of 2002. (n.d.). doi.org/10.1038/d41586-020-01181-3. Accessed on 12 March 2021. Drdlr.gov.za. 2021. DRDLR Home Legislation and Policies. [online] Available at: <<https://www.drdlr.gov.za/sites/Internet/Pages/Legislation-and-Policies.aspx>> [Accessed 31 May 2021].

Duchêne, D.A., Duchêne, S. & Ho, S.Y., 2018. Differences in performance among test statistics for assessing phylogenomic model adequacy. *Genome biology and evolution*, 10(6), pp.1375-1388.

FAO - Food and Agriculture Organization. 2020b. FAO Director-General urges G20 to ensure that food value chains are not disrupted during the COVID-19 pandemic. Available in: <http://www.fao.org/news/story/en/item/1268254/icode/> Accessed on 01 March 2021.

FAO, IFAD, UNICEF, WFP and WHO. 2020. The state of food security and nutrition in the world 2020: Transforming food systems for affordable healthy diets. Rome: Food and Agriculture Organisation of the United Nations.

Gelderblom, D., 2003. Social institutions. Oxford University Press, 2003. ISBN, 0195780760, 9780195780765 - Social Science

Govender, I. (2020). COVID-19 with social distancing, isolation, quarantine and cooperation, collaboration, and coordination of care but with disproportionate impacts. *South African Family Practice*, 62(1). doi:10.4102/safp. v62i1.5204.

Gu, H.Y. and Wang, C.W., 2020. Impacts of the COVID-19 pandemic on vegetable production and countermeasures from an agricultural insurance perspective. *Journal of Integrative Agriculture*, 19(12), pp.2866-2876.

Hair, J., Sarstedt, M., Ringle, C. & Gudergan, S., 2018. Advanced issues in partial least squares structural equation modeling. Thousand Oaks: SAGE.

Hashem, N.M., González-Bulnes, A. & Rodriguez-Morales, A.J. (2020). Animal welfare and livestock supply chain sustainability under the COVID-19 Outbreak: An Overview. *Frontiers in Veterinary Science*, [online] 7. doi:10.3389/fvets.2020.582528.

Hernandez M, Kim S, Rice B & Vos R (2020). IFPRI's new COVID-19 Food Price Monitor tracks warning signs of stress in local markets. International Food Policy Research Institute. Accessed from <https://www.ifpri.org/blog/ifpris-new-COVID-19-food-price-monitor-tracks-warning-signs-stress-local-markets> Accessed on 14 June 2021.

Howard, M.C., 2016. A review of exploratory factor analysis decisions and overview of current practices: What we are doing and how can we improve? *International Journal of Human-Computer Interaction*, 32(1), pp.51-62.

Ker, A.P., 2020. Risk management in Canada's agricultural sector in light of COVID-19. *Canadian Journal of Agricultural Economics/Revue Canadienne d'agroeconomie*, 68(2), pp. 251-258.

Khapayi, M. & Celliers, P.R., 2016. Factors limiting and preventing emerging farmers to progress to commercial agricultural farming in the King William's Town area of the Eastern Cape Province, South Africa. *South African Journal of Agricultural Extension*, 44(1), pp.25-41.

Klassen, S. & Murphy, S. 2020. Equity as both a means and an end: lessons for resilient food systems from COVID-19. *World Development*, 136: 105104.

Lindell, M.K. Gong Gong Wei Ji Yu Ying Ji Guan Li Gai Lun. 2016. Introduction to emergency management, Amazon. Zhong guo ren min da xue chu ban she. Available at:

<https://www.amazon.com/Introduction-Emergency-Management-Michael-Lindell/dp/0471772607> (Accessed: October 22, 2022).

Laborde, D., Martin, W., Swinnen, J and Vos,R (2020). COVID-19 risks to global food security: Economic fallout and food supply chain disruptions require attention from policymakers. Science. 31 Jul 2020, Vol 369, Issue 6503, pp. 500-502. DOI: 10.1126/science.abc4765

Makube, P. 2020. A senior agricultural economist at FNB Agri-business. State of the agricultural sector in South Africa's economy <https://www.fanews.co.za/article/economy/43/general/1198/state-of-the-agricultural-sector-in-south-africa-economy/29684>. Accessed on 02 March 2021.

Middendorf, B.J., Faye, A., Middendorf, G., Stewart, Z.P., Jha, P.K. & Prasad, P.V., 2021. Smallholder farmer perceptions about the impact of COVID-19 on agriculture and livelihoods in Senegal. *Agricultural Systems*, 190, p. 103108.

Nchanji, E.B. and Lutomia, C.K. (2021). Regional impact of COVID-19 on the production and food security of common bean smallholder farmers in Sub-Saharan Africa: Implication for SDG. *Global Food Security*, 29, p.100524. doi: 10.1016/j.gfs.2021.100524. Accessed on 19 September 2022

Ademuyiwa A, Bekele A, Berhea A, Borgstein E, Capo-Chichi N, Derbew M, Evans F, Feyssa M, Galukande M, Gawande A, Gueye S, Harrison E, Jani P, Kaseje N, Litswa L, Mammo T, Mellin-Olsen J, Muguti G, Nabukenya M, Ngoga E, Ntirenganya F, Rulisa S, Starr N, Tabiri S, Tadesse M, Walker I, Weiser T, Wren S (2020). COVID-19 Preparedness Within the Surgical, Obstetric, and Anesthetic Ecosystem in Sub-Saharan Africa. *Ann Surg.* 2020 Jul;272(1): e9-e13. doi: 10.1097/SLA.0000000000003964. PMID: 32301806; PMCID: PMC7188046.

Nwafor, A., & Hoza Ngoga, T. (2020). Policy brief: building resilient agriculture systems. AGRA. <https://agra.org/wp-content/uploads/2020/07/Policy-Brief-Vulnerability-of-the-agriculture-sector-toshocks-7-10-20.pdf>

Okello, S., Nasasira, B., Muiro, A.N.W. and Muyingo, A., 2016. Validity and reliability of a self-reported measure of antihypertensive medication adherence in Uganda. *PloS one*, 11(7), p.e0158499.

O'Meara, P., 2019. The aging farming workforce and the health and sustainability of agricultural communities: A narrative review. *Australian Journal of Rural Health*, 27(4), pp. 281-289.

Paltasingh, K.R. & Goyari, P., 2018. Impact of farmer education on farm productivity under varying technologies: a case of paddy growers in India. *Agricultural and Food Economics*, 6(1), pp.1-19.

PLAAS. 2020. Food in the time of the coronavirus: Why we should be very, very afraid. Cape Town: Institute for Poverty, Land and Agrarian Studies, UWC.

Saha, T. & Bhattacharya, S., 2020. A consequence of lockdown amid COVID-19 pandemic on Indian agriculture. *Food and Scientific Reports*, 1(special issue), pp.47-50.

Schmidhuber, J. 2020. COVID-19: From a global health crisis to a global food crisis. *FAO Food Outlook* 9.

Seleiman M.F., Selim S., Jaakkola S., Makela P., 2017. Chemical composition and in vitro digestibility of whole-crop maize fertilized with synthetic fertilizer or digestate and harvested at two maturity stages in boreal growing conditions. *Agric. Food Sci.* 26:47–55. <https://doi.org/10.23986/afsci.60068>

Senyolo, G.M., 2007. Factors distinguishing low turnover emerging farmers from high turnover emerging farmers in South Africa. MSc Thesis, University of Limpopo

Senyolo, M.P., Long, T.B., Blok, V. and Omta, O., 2018. How the characteristics of innovations impact their adoption: An exploration of climate-smart agricultural innovations in South Africa. *Journal of Cleaner Production*, 172, pp. 3825-3840.

Setumo, P. 2020. The impact of COVID-19 on small-scale farmers. [aneews.co.za/article/COVID-19-coronavirus-disease/1425/general/1430/the-impact-of-COVID-19-on-small-scale-farmers/28995](https://www.aneews.co.za/article/COVID-19-coronavirus-disease/1425/general/1430/the-impact-of-COVID-19-on-small-scale-farmers/28995). Accessed on 02 March 2021.

Siche, R. 2020. What is the impact of COVID-19 disease on agriculture? *Scientia Agropecuaria* 11(1): 3-6. *Scientia* DOI: 10.17268/sci.agropecu.2020.01.00

Tibesigwa, B. & Visser, M., 2016. Assessing gender inequality in food security among small-holder farm households in urban and rural South Africa. *World Development*, 88, pp. 33-49.

Tijjani, A.R., Nabinta, R.T. & Muntaka, M., 2015. Adoption of innovative cowpea production practices in a rural area of Katsina State, Nigeria. *Journal of Agricultural and Crop Research*, 3(4), pp. 53-58.

Timilsina, B., Adhikari, N., Kafle, S., Paudel, S., Poudel, S. & Gautam, D., 2020. Addressing the impact of COVID-19 post-pandemic on farming and agricultural deeds. *Asian Journal of Advanced Research and Reports*, pp. 28-35.

Torero, M. (2020). Without food, there can be no exit from the pandemic. *Nature*, 580(7805), pp.588–589. doi:10.1038/d41586-020-01181-3.

Tougeron, K. & Hance, T., 2021. Impact of the COVID-19 pandemic on apple orchards in Europe. *Agricultural Systems*, 190, p. 103097.

Visser, M. & Ferrer, S. 2015. Farm workers' living and working conditions in South Africa: key trends, emergent issues, and underlying and structural problems. International Labour Organization.

Wegerif, M.C., 2020. “Informal” food traders and food security: experiences from the COVID-19 response in South Africa. *Food Security*, 12(4), pp. 797-800.

Worku, A. & Ülkü, M.A., 2021. Analyzing the impact of the COVID-19 pandemic on vegetable market supply in Northwestern Ethiopia. *Journal of Agribusiness in Developing and Emerging Economies*.

Zagata, L., Hádková, Š. & Mikovcová, M., 2015. The basic outline of the problem of the "aging population of farmers" in the Czech Republic. *Papers in Economics and Informatics*, 7(1), pp. 89-96.

9.

SSIRC 2023-180**SUSTAINABLE ENTREPRENEURSHIP: A SYSTEMATIC LITERATURE REVIEW****E.M. Rankhumise**

Tshwane University of Technology, South Africa

P.M. Tladi

Tshwane University of Technology, South Africa

ABSTRACT

The purpose of this paper is to analyse the depth of existing literature on sustainable entrepreneurship and to investigate how this phenomenon is implemented by businesses. Sustainable entrepreneurship has become an area of interest for scholars globally. Ordinarily, sustainable entrepreneurial activities depict how economic opportunities are discovered and used to achieve sustainable development for better economic prosperity, social cohesion, and preservation of the environment for the generations to come. In this regard, sustainable entrepreneurs work towards eliminating traditional business practices and processes and replacing them with social and environmentally friendly products and services. In this context, the grounding of sustainability entrepreneurship is seen as a process of ecological, social and economic value creation, which suggests that sustainable entrepreneurs should embrace these elements to ensure sustainable business practices. A systematic literature review was used to gather the data from previous studies on sustainable entrepreneurship. The term ‘sustainable entrepreneurship’ was used to identify potential sources in the initial search. In the initial search stage, the researcher used databases with Google Scholar, Science Direct, Taylor & Francis and Web of Science as search engines. In the context of sustainable entrepreneurship, the implementation of sustainable business practices needs to converge with corporate social responsibility in strategic and entrepreneurial endeavours. In other words, corporate social responsibility needs to be embedded in the modern-day sustainability context as a mechanism for addressing societal, economic, and environmental demands. This could result in the improvement of business performance in relation to financial stability, well-being, and the health of the society in which the business is operating. Sustainable entrepreneurship tends to be entrepreneurial and collaborative in nature rather than opportunistic. In essence, sustainable entrepreneurs are not only aiming to create economic value, but also at protecting the environment and contributing to society in various ways. Sustainable entrepreneurs should embrace sustainable business practices within their businesses. Notably, these practices ought to ensure that entrepreneurs engage in socially and environmentally responsible practices that protect the planet and people and contribute to business growth. If businesses can take this holistic approach, they need to address and promote the three pillars of sustainability, namely social, environmental, and economic.

KEYWORDS: Corporate social responsibility, environmental, sustainable entrepreneurship, sustainability, sustainable business practices

1. INTRODUCTION

Worldwide, entrepreneurship is known to lead to social and economic growth and employment creation in communities. In the 20th century, small and medium-sized enterprises (SMEs) are viewed as the pillar of the growth pathway of many countries (Noshad et al., 2019). In the quest to accomplish the outcomes of entrepreneurship, it is prudent to understand entrepreneurial intentions and the factors affecting them (Tunio et al., 2021). The contribution of SMEs plays a critical role in relation to economic growth, job creation and poverty alleviation, particularly among disadvantaged communities. As noted by Mutsonziwa and Fanta (2021), this sector has the ability to contribute to economic development by increasing national output, creating employment prospects, reducing inequalities and alleviating poverty. Furthermore, SMEs can also foster sustainable development when they are integrated into community development (Mutsonziwa & Fanta, 2021). Machirori and Fatoki (2013) emphasise the importance of SMEs in overcoming developmental challenges such as high unemployment, high poverty rates and income inequalities, particularly in developing countries. Despite the contributions of SMEs to the economy, the sector still suffers from weak performance, and focuses on economic prospects without preserving the environment and the society in which it operates. In this context, sustainable entrepreneurship (SE) becomes important to ensure that sustainable business practices are implemented by the SME sector.

SE has become an area of interest for scholars globally. Ordinarily, SE activities depict how economic opportunities are discovered and used to achieve sustainable development for better economic prosperity, social cohesion, and preservation of the environment for the generations to come. Sustainable entrepreneurs eliminate conventional business practices, systems and processes and, importantly, strive to replace them with superior social and environmental products and services (Rosário et al., 2022). Traditional/conventional entrepreneurship focuses in principle on promoting economic development; in other words, it focuses more on profit maximisation, whereas SE focuses more on aligning social, economic, and ecological objectives (Belz & Binder, 2017). Scholars such as Schaltegger and Wagner (2011) define SE as “a business approach in which businesses engage in sustainable business practices aimed to achieve efficiency and competitiveness by balancing the impacts of their environmental, business and social activities”. This suggests that businesses should not focus only on yielding a profit, but also consider the planet and social impact. Schaltegger and Wagner (2011) confirm that SE is viewed as a way of contributing to solving societal and environmental problems through realising a successful business and promoting sustainable development. In the same vein, Ogujiuba *et al.* (2020), explain that SE acts at the interface of politics, business, and civil society to mobilise new resources, aimed at a structural change towards socially and environmentally sound economic activities.

The findings from the systematic literature review can be useful for the government in understanding how SMEs are implementing sustainable business practices and their effect on the business, society, and the environment. It would further aid institutions of higher learning in refining their curriculum to ensure that students understand the rationale for adopting SE in the business. The final contribution of this paper is in the dimensions of (i) economic value – businesses should pursue business endeavours to maximise profit while at the same time taking

care of social and environmental aspects, (ii) social – businesses should provide collective benefits such as employment and also preserve communities and (iii) environmental – sustainable businesses need to protect the environment when conducting operations and assess the impact SE might have on economic growth, advancing environmental objectives and improving social conditions in developing countries, like South Africa. In achieving the purpose of the study, the researchers formulated research questions as: What are the effects of the implementation of sustainable business practices on business, society, and the environment?

2. LITERATURE REVIEW

2.1 Sustainable entrepreneurship

SE can be defined as “the examination of how opportunities will bring into existence for future goods and services discovered, created and exploited, by whom and with what economic, psychological, social and environmental consequences” (Cohen & Winn: 2007). According to Bajdor, Paweloszek and Fidlerova (2021), entrepreneurship is perceived as a determinant of social and ecological development and is thus referred to as sustainable entrepreneurship. DiVito and Bohnsack (2017) explain that the paradigm of sustainable development emanated from three dimensions, namely economics, ecology, and ethics. Similarly, scholars such as Tunio et al. (2021) explain that entrepreneurship, relating to sustainable development, “is a dynamic phenomenon that connects the 3Ps (people, profit, and planet)”. Ordinarily, it consists of social, environmental, and economic aspects between entrepreneurial processes, market transformations and societal developments. In this case, businesses should operate considering the three dimensions to be sustainably aligned, which means that they should still operate to yield profit, improve the living standards of society and, above all, preserve the environment by managing pollution. Accordingly, economics focuses on profit, cost saving, economic growth and research and development (DiVito & Bohnsack, 2017). Notably, economics serves as traditional entrepreneurship where the motive for the business operation is to maximise profit. On the other hand, ecology determines the use of natural resources, environmental management, and pollution prevention (air, water, land, and waste). For decades, entrepreneurship was considered a mechanism to create self-employment capable of generating economic benefit (Belz & Binder, 2017; Terán-Yépez, et al., 2020; Tufa, 2021). However, the challenges relating to society and the business’s environment were discounted (Terán-Yépez et al., 2020). As a result, the perception of sustainable development emerged. Scholars began to pay more attention to the connection between sustainable development and entrepreneurship, which has led to the emergence of the concept of sustainable entrepreneurship (Gray et al., 2014; Bajdor et al., 2021). SE encompasses entrepreneurial activities that directly embrace sustainability's economic, ecological, and social dimensions as part of its core business practice (Belz & Binder, 2017; Schaltegger & Wagner, 2011).

SE has been considered a solution for social inequality and environmental degradation rather than a positive cause of them (Terán-Yépez et al., 2020; Muñoz & Cohen, 2018; Rode et al., 2021). According to Rosário et al. (2022), SE intends to solve these problems by implementing strategies and solutions that address current and future generations’ economic, social, and environmental needs and concerns. Several scholars define SE as “a business approach in which businesses

engage in sustainable business practices aimed to achieve efficiency and competitiveness by balancing the impacts of their environmental, business and social activities” (Belz & Binder, 2017; Hernández-Perlins & Ibarra Cisneros, 2018). Belz and Binder (2017) are of the view that integrating sustainability and responsibility into business operations is essential for sustainable enterprises. The study by Bischoff and Volkmann (2018) analysed the role of stakeholder support in developing SE ecosystems. Their findings highlight the importance of extensive, tailored, and collaborative stakeholder support for encouraging engagement in SE and for creating strong SE ecosystems.

Past studies suggest that there is growing interest in socially responsible endeavours. They maintain that SE has the potential to determine operational efficiency and organisational profitability while at the same time taking care of the environment and developing responsible citizenship (Soto-Acosta et al., 2016).

2.2 Sustainability and sustainable business practices

Sustainability is considered an important part of business strategy for many sectors across the globe (Tura et al., 2019). Essentially, businesses should embrace sustainability in their strategic plans to ensure that they work towards achieving sustainability and allocate money for such activities. Several scholars posit that sustainability is concerned with social and environmental challenges such as climate change and gaping inequalities (Muñoz & Cohen, 2018; Holzmann & Gregori, 2023). Research indicates that SMEs dominating the economy are responsible for about 70% of global industrial waste pollution. As a result, these enterprises are responsible for addressing pollution prevention and aligning their business strategy with sustainable business practices (Neto et al., 2017; Caldera et al., 2019). Enterprises are encouraged to implement sustainable business practices to deliver environmental and social benefits (Neto et al., 2017) and also generate a competitive advantage for the business (Tura et al., 2019). Rode et al. (2021) allude to the importance of engaging the business community to confront global environmental challenges such as mitigating climate change, halting biodiversity loss and deforestation and reducing pollution. It is notable that businesses are investing more in sustainable business practices with the intention of achieving optimal win-win situations where economic, social, and environmental benefits are achieved for relevant stakeholders (Tura et al., 2019). By investing in sustainable business practices, there is a greater possibility of having increased profit, varied power for suppliers, reduced environmental challenges and improved social well-being of society. Though the benefits of investing in sustainability are well documented in the literature, clearly the potential costs or negative consequences that may result from implementing sustainable business practices have received less attention by researchers.

The study conducted by Langwell and Heaton (2016) shows that SMEs do implement sustainability activities, albeit focused more on social issues rather than on environmental ones. Furthermore, the literature suggests that social and environmental sustainability practices are grossly neglected due to the lack of knowledge and awareness on the part of SMEs (Ives et al., 2020). Journeault, Perron and Vallières (2021) perceive and quantify the positive or negative impact of the environment on society (Das et al., 2020).

3. METHODOLOGY

In this study, a systematic literature review was adopted. Sweet and Moynihan (2007) define a systematic review as “a systematic, transparent means for gathering, synthesising and appraising the findings of studies on a particular topic or question”. Notably, systematic reviews are regarded as a useful tool for those seeking to promote the translation of knowledge into action as advocated by Sweet and Moynihan (2007). This type of research is important as it can help researchers to identify gaps in knowledge and where further study or research is required. It can also help researchers and policymakers to identify areas where further research is not needed.

In operationalising this system and complying with the study requirements, a library search and analysis of previous literature using the keywords ‘sustainability’ and ‘sustainable entrepreneurship’ were carried out. These keywords were used to find articles relating to sustainable business practices.

While carrying out this step, factors influencing businesses to implement sustainable business practices were identified. The search started in December 2022 – February 2023. The researcher used reputable databases such as Google Scholar, Science Direct, Taylor & Francis and Web of Science as search engines.

Selection criteria

| Criterion | Inclusion | Exclusion | Rationale for selection |
|-------------------------------|--|--|---|
| Relevance to review questions | Research with a core focus on sustainability and SE; research focused on SMEs but had two elements of SE | Articles with a focus on corporate social responsibility | To provide relevant data that could achieve the research objectives |
| Date of publication | 2016 - 2023 | Up to and including 2015 | To get a perspective of the selected period |
| Language | English | Other languages | Translation costs |
| Type of publication | Peer-reviewed journal articles | Magazines, theses, books, book chapters | Extensive peer-review process |
| Databases | Web of Science, Scopus, Google Scholar, Taylor & Francis | Google | Searching for variety gives broader coverage |
| Type of research | Literature review and empirical studies | Theoretical | Relevant in answering the research questions |
| Methods | All | None | All research methods appropriate |
| Research demarcation | All | None | Research emanating from all countries |

The above selection yielded useful information that enabled the researchers to conduct analyses and make inferences.

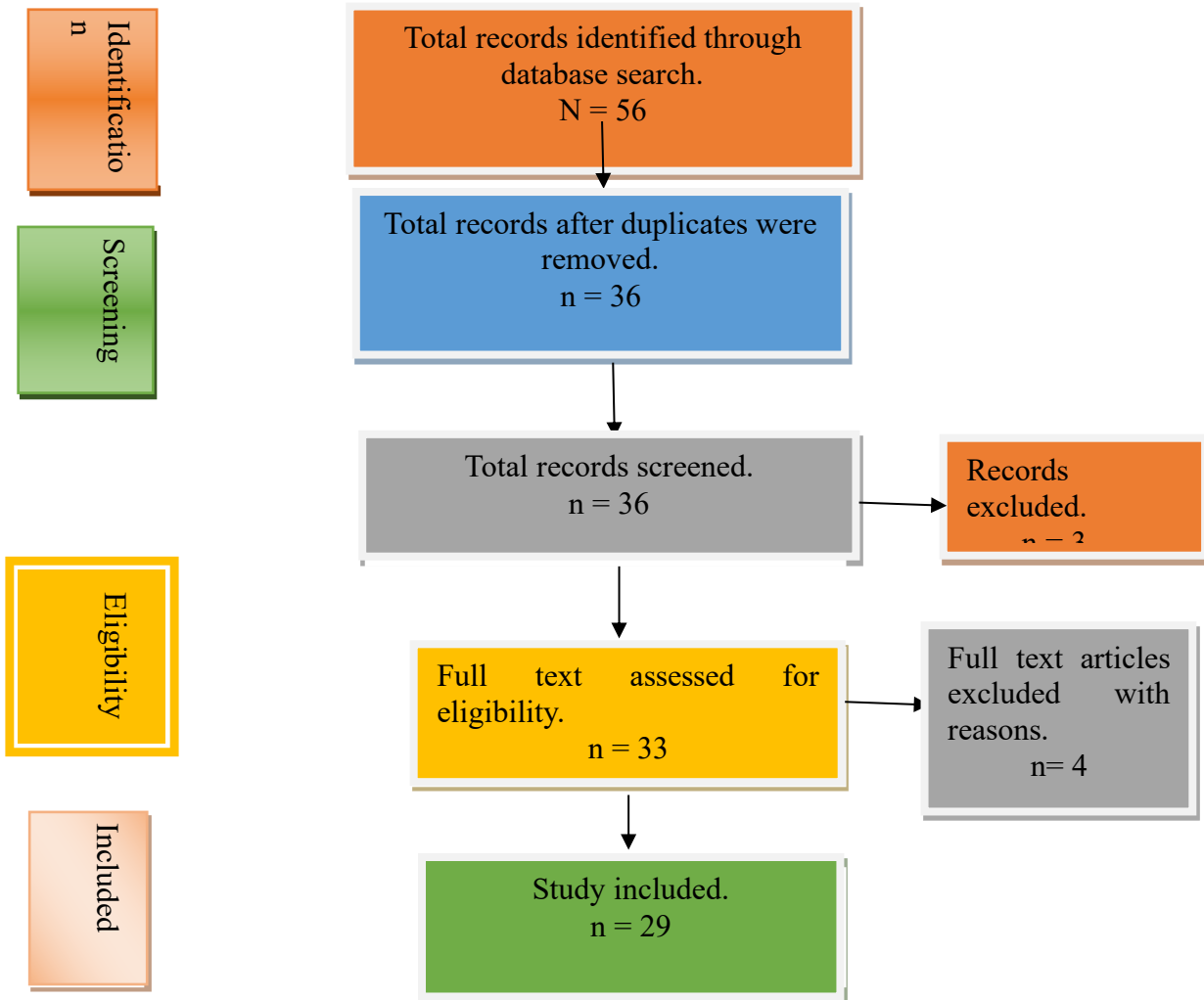


Figure 1: Steps in article selection process

The initial identification process identified 56 peer-reviewed articles. Of these articles, it emerged that 16 were duplicates and they were removed from the process. A total of 36 records were screened and 3 were excluded as they did not fully address SE. When assessing eligibility, 4 records were excluded as some of these were more on corporate social responsibility. A total of 29 records were included in the study.

4. RESULTS AND DISCUSSION

The purpose of the systematic literature review was to understand how businesses implement sustainable business practices. It assisted in identifying key variables that were previously used in other studies. Future research areas were also identified. The set objective was successfully achieved through the systematic review and synthesis of 29 articles. The review and analysis yielded interesting findings.

The findings show that SE acts at the interface of politics, business, and civil society to mobilise new resources, aimed at a structural change towards socially and environmentally sound economic activities. From the findings, it can be noted that SE is not an isolated business practice and that there are various stakeholders involved in SE. For instance, the government through politicians promulgates Acts and regulations associated with environmental management with which the business sector must comply. It further emerged that the business sector should be socially responsible in their operations. This means that they should invest in philanthropic issues in the community. For instance, they contribute to a better living standard of society and provide educational opportunities through bursaries and uplifting of the educational facilities within such communities.

It was found that sustainability plays an important part in business strategy for many sectors worldwide. It is therefore critical for business owners to include sustainability in their strategic plan to ensure that funds are allocated. By so doing, the businesses would ensure that they implement sustainable business practices, which could result in preventing the depletion of natural or physical resources. The systematic literature review indicated that when businesses implement sustainable business practices, they are likely to increase their profit, reduce their environmental footprint and conserve resources.

The analysis revealed that SE is an area that is still unknown and is a new area attracting interest from researchers. Therefore, more empirical studies will become imminent, particularly in developing countries. These types of studies should not only consider the implementation of sustainable business practices, but they should include the costs associated with the implementation and consequences of these practices. This is important as it would provide some insights for the government on how the sustainable business practices could be viewed as a positive step for businesses to embrace SE. This could assist the government in developing incentives for businesses that embrace the concept of sustainable business practices.

It was noted from the review that some SMEs do not embrace social and environmental sustainability practices due to their lack of knowledge and awareness. In this regard, they focus primarily on the economic dimension, which means that they aim entirely at maximising profit, and therefore they work based on conventional entrepreneurship. The analysis showed that it is important to engage communities to confront global environmental challenges, for instance mitigating climate change, deforestation, and pollution. SMEs dominating the economy are responsible for global industrial waste pollution. Though they may not eradicate pollution in their operations due to the nature of their industry, it is important for them to plan how to reduce pollution.

5. CONCLUSION

The purpose of this paper was to analyse the depth of existing literature on sustainable entrepreneurship and to investigate how this phenomenon is implemented by businesses. Several conclusions can be made based on the systematic literature review conducted. It can be concluded that integrating sustainable business practices into business operations is fundamental for a sustainable enterprise. For a business to succeed in sustainable business practices, it is important

to embrace collaborative efforts with all stakeholders. If there is no collaboration, the business efforts could be stifled by a lack of cooperation from the stakeholders, particularly the community; at the same time, the government may have its own ideologies which impact negatively on the business sector. In the quest to implement sustainable business practices, the costs or negative consequences are a factor that could be a hurdle for some businesses. There is consensus from scholars that when businesses implement sustainable entrepreneurship, they could increase their profit margins. It emerged that some businesses do not focus on sustainable business practices due to their lack of knowledge and awareness. Ordinarily, they focus on a conventional business model.

As a result of the findings of this systematic review, the following suggestions are made: An empirical study should be conducted which should cover a broader population, particularly in South Africa. The study should consider a mixed method design. Secondly, businesses should embrace sustainable business practices in their respective strategic plans. Thirdly, collaborative stakeholder support is important for encouraging engagement in sustainable entrepreneurship and for creating strong sustainable entrepreneurial ecosystems.

REFERENCES

- Bajdor, P., Pawełoszek, I. & Fidlerova, H., 2021. Analysis and assessment of sustainable entrepreneurship practices in Polish small and medium enterprises. *Sustainability*, 13(7), pp. 1-28.
- Belz, F. & Binder, J., 2017. Sustainable entrepreneurship: A convergent process model. *Business Strategy Environment*, 26(1), pp. 1-17.
- Bischoff, K. & Volkmann, C. K., 2018. Stakeholder support for sustainable entrepreneurship - a framework of sustainable entrepreneurial ecosystems. *International Journal of Entrepreneurial Venturing*, 10(2), pp. 172-201.
- Caldera, H. T. S., Desha, C. & Dawes, L., 2019. Evaluating the enablers and barriers for successful implementation of sustainable business practice in 'lean' SMEs. *Journal of Cleaner Production*, 218(2), pp. 575-590.
- Cohen, B.; Winn, M.I. 2007. Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*. 22, 29-49
- Das, M., Rangarajan, K. & Dutta, G., 2020. Corporate sustainability in SMEs: An Asian perspective. *Journal of Asia Business Studies*, 14(1), pp. 109-138.
- DiVito, L. & Bohnsack, R., 2017. Entrepreneurial orientation and its effect on sustainability decision tradeoffs: The case of sustainable fashion firms. *Journal of Business Venturing*, 32 (5), pp. 569-587.
- Gray, B. J., Duncan, S., Kirkwood, J. & Walton, S., 2014. Encouraging sustainable entrepreneurship in climate-threatened communities: A Samoan case study. *Entrepreneurship and Regional Development*, 26(5-6), pp. 401-430.
- Hernández-Perlines, F. & Ibarra Cisneros, M. A., 2018. The role of environment in sustainable entrepreneurial orientation. The case of family firms. *Sustainability*, 10(6), pp. 1-16.
- Holzmann, P. & Gregori, P., 2023. The promise of digital technologies for sustainable entrepreneurship: A systematic literature review and research agenda. *International Journal of Information Management*, 68(1), pp. 1-20.

-
- Ives, C. D., Freeth, R. & Fischer, J., 2020. Inside-out sustainability: The neglect of inner worlds. *Ambio*, 49(1), pp. 208-217.
- Journeault, M., Perron, A. & Vallières, L., 2021. The collaborative roles of stakeholders in supporting the adoption of sustainability in SMEs. *Journal of Environmental Management*, 287(1), p. 112349.
- Langwell, C. & Heaton, D., 2016. Using human resource activities to implement sustainability in SMEs. *Journal of Small Business and Enterprise Development*, 23(3), pp. 652-670.
- Machirori, T. & Fatoki, O., 2013. The impact of firm and entrepreneur's characteristics on networking by SMEs in South Africa. *Journal of Economics*, 4(2), pp. 113-120.
- Muñoz, P. & Cohen, B., 2018. Sustainable entrepreneurship research: Taking stock and looking ahead. *Business Strategy and the Environment*, 27(3), pp. 300-322.
- Mutsonziwa, K. & Fanta, A., 2021. Small business performance: Is it access to formal or informal credit that matters? *Journal of African Business*, 22(4), pp. 550-563.
- Neto, G. C. O., Leite, R. R., Shibao, F. Y. & Lucato, W. C., 2017. Framework to overcome barriers in the implementation of cleaner production in small and medium-sized enterprises: Multiple case studies in Brazil. *Journal of Cleaner Production*, 142(1), pp. 50-62.
- Noshad, M., Amjad, M., Shafiq, M. & Gillani, S., 2019. Performance and obstacles of SMEs: An empirical evidence from BRICS countries. *iRASD Journal of Economics*, 1(2), pp. 113-131.
- Ogujiuba, K; Nico, R; Naseer, M; Ogujiuba, C & Estelle, B., 2020. SMEs and sustainable entrepreneurship in South Africa: Impact analysis of contextual factors in the services sector. *EuroEconomica*, 3(39), pp. 7-28.
- Rode, J., Heinz, N., Cornelissen, G. & Le Menestrel, M., 2021. How to encourage business professionals to adopt sustainable practices? Experimental evidence that the 'business case' discourse can backfire. *Journal of Cleaner Production*, 283(1), pp. 1-11.
- Rosário, A., Raimundos, R. & Cruz, S., 2022. Sustainable entrepreneurship: A literature review. *Sustainability*, 14(5556), pp. 1-25.
- Schaltegger, S. & Wagner, M., 2011. Sustainable entrepreneurship and sustainability innovation: Categories and interactions. *Business. Strategy Environment*, 20(1), pp. 222-237.
- Soto-Acosta, P., Cismaru, D., Vătămănescu, E. & Ciochină, R., 2016. Sustainable entrepreneurship in SMEs: A business performance perspective. *Sustainability*, 8(4), pp. 1-12.
- Sweet, M. & Moynihan, R., 2007. *Improving Population Health: The Uses of Systematic Reviews*, New York: Milbank Memorial Fund.
- Terán-Yépez, E., Marín-Carrillo, G. M., Del Pilar Casado-Belmonte, M. & De las Mercedes Capobianco-Uriarte, M., 2020. Sustainable entrepreneurship: Review of its evolution and new trends. *Journal of Cleaner Production*, 252(1), pp. 1-21.
- Tufa, T., 2021. The effect of entrepreneurial intention and autonomy on self-employment: Does [sic] technical and vocational educations and training institutions support matters? *Journal of Global Entrepreneurship Research*, 11(1), pp. 551–561.
- Tunio, N.M; Chaudhry, I.F; Shaikh, S & Jariko, M.A 2021. Determinants of the sustainable entrepreneurial engagement of youth in developing country—an empirical evidence from Pakistan. *Sustainability*, 13(6), pp. 1-17.
-

Tura, N., Keränen, J. & Patala, S., 2019. The darker side of sustainability: Tensions from sustainable business practices in business networks. *Industrial Marketing Management*, 77(1), pp. 221-231.

SSIRC 2023-181

PERCEPTION OF STUDENTS ON THE EFFECTIVENESS OF FPB'S MANDATE ON CURBING ONLINE HARM

M.M. Mothiba

North-West University, South Africa

O. Ngake

North-West University, South Africa

O. Maunatlala

North-West University, South Africa

ABSTRACT

The Film and Publication Board (FPB) in South Africa plays an important role in curbing online harm by regulating the creation, production, distribution, and exhibition of certain films, games, and publications in the country. While the FPB's mandate does not extend to regulating online content directly, it is still effective in executing online safety through its roadshows at institutions of higher learning with the objective of creating a platform for the youth to discuss their understanding of online harm and gather information on what their experiences and concerns are when using online platforms. Students are frequent users of social media and that could put them at a higher risk of experiencing online harm. Online harm can significantly affect individuals, particularly young people who are more vulnerable to online threats. It can lead to emotional distress, anxiety, depression, self-harm, and in extreme cases, suicide. Hence, this study explores students' perceptions of how FPB curbs online harm. In addition, to identify whether students are knowledgeable and informed about the FPB's mandate and how that can help them protect themselves from online harm. This study adopted the mixed research methodology and used surveys with descriptive questions and in-depth answers to collect data from students. Some of the findings highlight what FPB's mandate is and how it has achieved a positive effect on curbing online harm. This study contributes to addressing the gap in research by focusing on the perceptions of students regarding regional regulatory bodies (in this case the FPB) ability to reduce self-harm caused by social media. Hence this study explores the perceptions of students on FPB's mandate with an aim to identify if the mandate is effective and if students are aware of such mandates that the FPB holds.

KEYWORDS: Students, social media, Online harm, Cyberbullying, FPB, South Africa

Keywords: online harm, cyberbullying, FPB, students, social media, South Africa

1. INTRODUCTION

The widespread use of the internet and social media has led to an increase in online harm and cyberbullying among students (Hinduja, & Patchin, 2018). Cyberbullying can have detrimental effects on the mental health, the social lives, and academic performance of students. Research has shown that cyberbullying can negatively affect the mental health, academic performance, and social relationships of young people (Kowalski et al., 2014). To address this issue, the Films and

Publications Board (FPB) in South Africa has extended its mandate to regulate online content and curb online harm and cyberbullying. The FPB's mandate includes monitoring and classifying online content harmful to children and other vulnerable groups. However, the effectiveness of the FPB's mandate in curbing online harm and cyberbullying is a topic of debate. While some studies have suggested that regulatory measures can be effective in reducing the prevalence of online harm (Görzig & Livingstone, 2012), others have suggested that regulation can be difficult to enforce and that it can have unintended consequences, such as limiting freedom of speech (Langevin, 2016).

Several studies in Southern Africa have examined the prevalence of online harm and cyberbullying among students, but few have highlighted measures mandated to curb online harm. Hence, this study explores the effectiveness of the FPB's mandate from a student perspective. Understanding the perception of students on the impact of the FPB's mandate on curbing online harm and cyberbullying is crucial to improving the effectiveness of the implementation of the mandate and identifying areas for improvement in the regulation of online content in South Africa. Therefore, this paper explored students' perceptions of the extent to which the FPBs are achieving their mandate to curb online harm and cyberbullying. By examining students' perceptions on this topic, this paper provides insight into the effectiveness of the FPB's mandate and identifies areas for improvement in the regulation of online content in South Africa.

This paper provides valuable insights into students' perceptions of the effectiveness of the Films and Publications Board's mandate in curbing online harm and cyberbullying. With several studies highlighting an increase in online harm and cyberbullying among students, it is important to understand how the FPB's mandate is perceived by those who are directly affected by it. By examining the perspectives of students on this issue, the paper identified the gaps in the current regulatory framework and provided recommendations for improving the effectiveness of the FPB's mandate. Furthermore, the paper contributes and expands on the frontier of knowledge on online harm and cyberbullying, particularly in the South African context. As the first study to focus on the perceptions of students regarding the FPB's mandate, it will add to the limited body of research on the topic and provide a more comprehensive understanding of the regulatory landscape in South Africa. Ultimately, the paper informs policy and practice in the regulation of online content in South Africa. By identifying the factors that contribute to the effectiveness or ineffectiveness of the FPB's mandate, policymakers and regulators can better tailor their efforts to curb online harm and cyberbullying, particularly among vulnerable groups such as children and young adults.

2. LITERATURE REVIEW

2.1. Online harm and cyberbullying in South Africa

Online harm and cyberbullying are significant issues in South Africa, particularly among young people. The widespread availability of smartphones and the internet has made it easier for individuals to engage in harmful online behaviours. In line with Smit (2015), cyberbullying in South Africa is defined as any communication or online behaviour intended to intimidate, harass, threaten, or cause harm to another person. This can take many forms, including sending threatening messages, sharing private or embarrassing photos or videos, spreading rumours, or posting hurtful comments on social media platforms.

The consequences of cyberbullying can be severe, leading to anxiety, depression, and even suicide (Shoib et al, 2022). In addition, online harassment and hate speech have been linked to a rise in violence and discrimination against vulnerable groups, such as women and minorities (Gover et al, 2020). To combat online harm and cyberbullying, South Africa has implemented several measures. The Protection from Harassment Act was enacted in 2011, which provides legal protection for victims of online harassment and bullying. Social media platforms have also introduced their own measures to prevent online harm, such as reporting mechanisms, content moderation policies, and user-blocking features (Jhaver et al, 2018).

There is a dearth of research on the perceptions of students regarding the FPB's mandate on curbing online harm and cyberbullying. However, research by Liang and Farkas (2020) found that students who had experienced cyberbullying were more likely to support regulatory measures to prevent online harm. Similarly, a study by Hong et al. (2018) found that students who had experienced cyberbullying were more likely to perceive it as a serious problem and to support measures aimed at preventing it. Be as it may, there is still much work to be done to address the issue of online harm and cyberbullying in South Africa. Educating young people about responsible online behaviour and digital citizenship is essential, as it ensures that victims have access to support and resources to help them cope with the emotional impact of cyberbullying.

2.2. Online harm and cyberbullying on social media

Online harm and cyberbullying on social media are serious problems that can have an effect on individuals and society. According to Akrim and Sulasmi (2020) with cyberbullying, people make use of technology, such as social media platforms, to deliberately and repeatedly harass, intimidate, or humiliate others. It can take many forms, including name-calling, spreading rumours, and sharing embarrassing or threatening messages or images. Online harm encompasses a broader range of negative online behaviour, including cyberbullying, hate speech, incitement to violence, sharing of violent or explicit content, and online harassment (Henry and Powell, 2018).

According to Farhangpour et al (2019), cyberbullying and online harm can have severe consequences for victims, including emotional distress, depression, anxiety, and even suicide in extreme cases. They can also have a broader societal impact, contributing to the spread of hate speech and the erosion of trust in online communities.

Social media platforms are responsible for addressing these issues and preventing online harm. This includes implementing effective moderation and reporting mechanisms, supporting victims, and educating users about appropriate online behaviour (Dhiman, 2023). Individuals can also play a role in preventing online harm by being mindful of our own online behaviour, reporting harmful content when we see it, and supporting victims of cyberbullying and online harm.

2.3.FPB's mandate on curbing online harm and cyberbullying

In recent years, according to Nevondwe and Odeku (2014), the FPB has also been mandated to regulate and curb online harm and cyberbullying. The impact of the FPB's mandate on curbing online harm and cyberbullying has been mixed. On the one hand, the FPB has successfully acted against individuals and websites that promote hate speech and other forms of harmful content

online. For example, the FPB has been able to shut down websites that promote racism and xenophobia and has acted against individuals who have posted harmful content on social media.

On the other hand, according to the Parliamentary Monitoring Group (2016), some critics argue that the FPB's mandate is too broad and could potentially infringe on freedom of speech and expression. Concerns exist that the FPB could use its regulatory powers to censor legitimate forms of expression and stifle dissenting voices. In addition, there are concerns that the FPB's actions may be limited in their impact, as harmful content can be easily disseminated through social media and other online platforms. Research on the impact of the FPB's mandate is limited, but a study by Steinberg and Donald (2018) found that there was general support for the FPB's mandate among South African parents. However, some expressed concerns about the potential impact on freedom of speech.

Overall, the impact of the FPB's mandate on curbing online harm and cyberbullying is still being evaluated. While there have been some successes in acting against harmful content online, there are also concerns about the potential for overreach and unintended consequences. It will be necessary for the FPB to continue to balance its regulatory mandate with the need to protect freedom of speech and expression, while also working to address the very real and harmful impact of online harm and cyberbullying.

3. METHODOLOGY

3.1. Research design

This paper adopted the concurrent triangulation design, which generally includes the concurrent but isolated collection and analysis of qualitative and quantitative data so that the researcher may best recognize the research problem (Creswell, 2006). Student perceptions can be complex and multi-faceted. Therefore, this study applied this design to collect data in a more comprehensive understanding of their perceptions by collecting data from various angles, through collecting non-numerical and numerical data to gain insights and an understanding of perceptions of students on FPB's mandate.

3.2. Sampling method

The study randomly sampled 80 undergraduate students within the age range of (18-20) in the School of Communication within the Humanities faculty of the North-West University Mahikeng Campus in South Africa. To the end and completion of this study, 80 undergraduate students were randomly selected. Online survey questionnaires were designed to elicit qualitative data in line with the significance of this study discussed. The randomly selected communication students were chosen for their active involvement in the FPB's university roadshow initiative on the Mahikeng campus of North-West University.

3.3. Research instrument

The study utilised an online survey, Google Forms, that included closed-ended and open-ended questions. The questions were structured in a way that allowed respondents to provide detailed and descriptive answers that were not limited by pre-determined response options. Questions which include among others the socio-demographic variables of the respondents, how familiar are students with the FPB's mandate to curb online harm, and if students have changed in the online

content, access, or the behaviour of online content providers since the FPB's mandate was introduced.

3.4.Data collection

The researchers created an online survey with 34 questions and recruited participants through the WhatsApp groups of students. Interested students were sent a link that directed them to the online survey to discuss and highlight their perceptions on the mandate of FPB to curb online harm and cyberbullying.

3.5.Data analysis

This study adopted a descriptive analysis that includes statistics and thematic analyses to analyse data collected for both quantitative and qualitative using an online survey. A descriptive analysis was used to summarise and interpret the key features and identify patterns or themes to highlight perceptions of students on FPB's mandate. This method also highlights students' knowledge of online harm and cyberbullying. An SPSS (Statistical Package for the Social Sciences) was used to discuss and present quantitative data that highlighted core ideas of students' perceptions. Using thematic analyses, the researchers thematically grouped the data to identify repeated aspects that can help develop new themes.

4. RESULTS AND DISCUSSION

4.1. Student experience and knowledge of FPB and its mandate on curbing online harm

The following table indicates how students are familiar with the FPB's mandate.

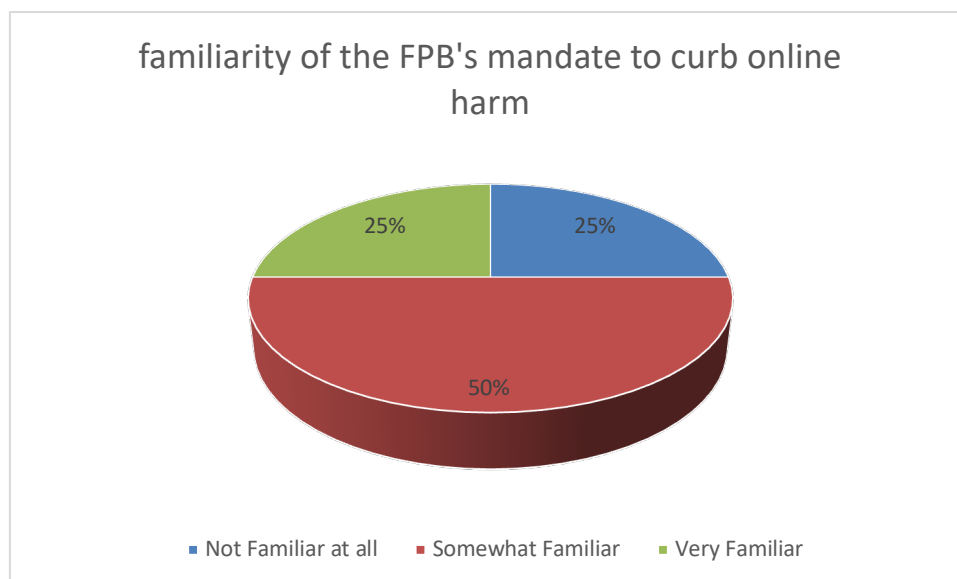


Figure 1: Familiarity of students with FPB's mandate

Most of the students (50%) highlighted that they are somewhat familiar with the mandate while other students (25%) indicated that they are familiar and other students (25%) indicated that they are not familiar with the mandate. This suggests that most of the students are not familiar with the FPB's mandate.

Based on the types of online harm, that FPB's mandate is aimed at curbing, the study found that most students identified cyberbullying as the online harm that FPB's mandate is aimed at curbing. This correlates with the literature that cyberbullying is one of the significant issues in South Africa, particularly among young people. This is enabled through the widespread availability of smartphones and the internet, making it easier for individuals to engage in harmful online behaviours.

In support of Gover et al (2020), some students identified uncensored content, hate speech, body shaming, child pornography, misinformation, and social issues as other types of online harm FPB's mandate is aimed at curbing. These are some of the online harms that have been linked to a rise in violence and discrimination against vulnerable groups. As such, this is a clear indication that, though we only have 25% of the students being very familiar with FPB's mandate and 25% somewhat familiar, students are quite aware of the online harm in their existence. Be it through the FPB's mandate or through personal knowledge and observation.

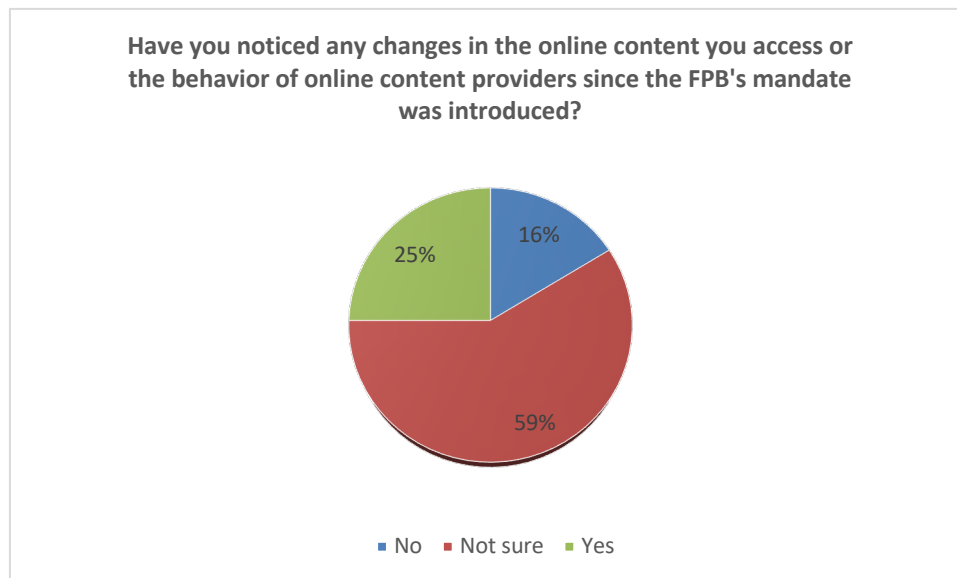


Figure 2: Change in online content since FPB's mandate

Most students (59%) have highlighted that they are not certain about the changes in the online content they access since the FPB's mandate. However, only (25%) of the students have seen a change in online platforms since the introduction of FPB's mandate to curb online harm and (16%) have not seen any change. This signifies that most students are uncertain whether they have seen any change since the FPB's mandate to curb online harm which does not align with the mandate.

Regarding FPB's mandate being effective in curbing online harm, the study found that there is 50-50 views from students. 50% of the students agree that FPB's mandate effectively curbs online harm, with reasons varying from FPB disseminating information to the people adequately and that it brings people to light and makes them aware of the significance of online harm. Students also indicated that the right regulations are put in place since it discourages and prevents and/or reduce acts of online harm. Furthermore, the other 50% of students disagree with FPB's mandate being effective. Students expressed that FPB does not reach a broader audience. People in rural areas are

still uneducated, and online harm continues in the rural areas. Students further justified their disagreement in a stance that they are not quite aware of the effectiveness of FPB's mandate as they are still witnessing and experiencing online harm. This shows that, indeed FPB mandate to curb online harm exists but not much justice is done to ensure that all people are aware of the mandate. A broader audience needs to be reached, and a more integrated marketing communication plan needs to be developed to ensure that all spheres of society are aware.

The study asked participants whether FPB's mandate is too restrictive or not restrictive enough and the study found that most students believe that FPB's mandate is not restrictive enough. Students specified that there is still much online harm taking place in different forms that online platforms permit. This is a key finding that suggests, according to Dhiman (2023), that the implementation of effective moderation and reporting mechanisms that provide support to victims, and educating users about appropriate behaviour is needed. A more restrictive mandate must be implemented to curb online harm.

In the literature, it has been indicated that according to the Parliamentary Monitoring Group (2016), some critics argue that the FPB's mandate is too broad and could potentially infringe on freedom of speech and expression. There have been concerns that the FPB could use its regulatory powers to censor legitimate forms of expression and stifle dissenting voices. Based on student experience and knowledge, the study found that students still believe that society does not have freedom of expression. This is a matter raised beyond the aspects of online harm and the regulation around it, because of the societal challenges people or rather the students are facing.

In the same vein, some students believe that the regulations around online harm limit people to express themselves freely. This is mainly because people are afraid to offend others without knowing. Some students feel that the FPB mandate does not impact freedom of speech but rather it limits hate speech. Similarly, other students expressed that the FPB mandate does not necessarily affect freedom of speech but rather it helps people to realise the difference between hate speech and expression. Through the FPB mandate, people are able to realise how to express themselves and at the same time be considerate of others. There is no problem in expressing yourself, but it should not be done in the triumph of harming others in any way.

In response to the FPB's mandate, the study wanted to know whether students have changed their behaviour or content consumption. The study found that the awareness of the FPB's mandate to curb online harm has improved the students' awareness. Most students are now more aware of how they behave online and what content they tend to consume. The study also found that some students have adopted the "think before you post" approach which has become very effective for them in the awareness of online and provisioned growth and responsibility on online platforms. The study furthermore found that some students discovered that they have unknowingly caused online harm and have stopped causing online harm or resharing content that promotes cyberbullying. In relation to Shoib et al (2022), the consequences of cyberbullying can be severe, leading to anxiety, depression, and even suicide, the study also discovered that some of the students have been cyberbullied before but with the online harm and cyberbullying information received, it has helped them focus on the positive and extend a helping hand to other victims around them.

Based on the collected data, students have expressed different views on the FPB’s mandate towards curbing online harm but in the long run, will the FPB’s mandate have a lasting impact on online behaviour and content in South Africa? The study found that most of the students, with the different views they have, still have hope in believing that the mandate of the FPB will have a lasting effect in the long run. If the FPB would adapt to changes and different methods to improve their approach to curbing online harm. Furthermore, students believe that in the long run, the FPB mandate will assist in putting up positive content. The mandate also involves kids from a very young age. This will help curb online harm in the upbringing of the kids to ensure they are aware from a tender? age. In the long run, the mandate will ensure that harmful content will no longer be posted and empowerment of many to stay safe online.

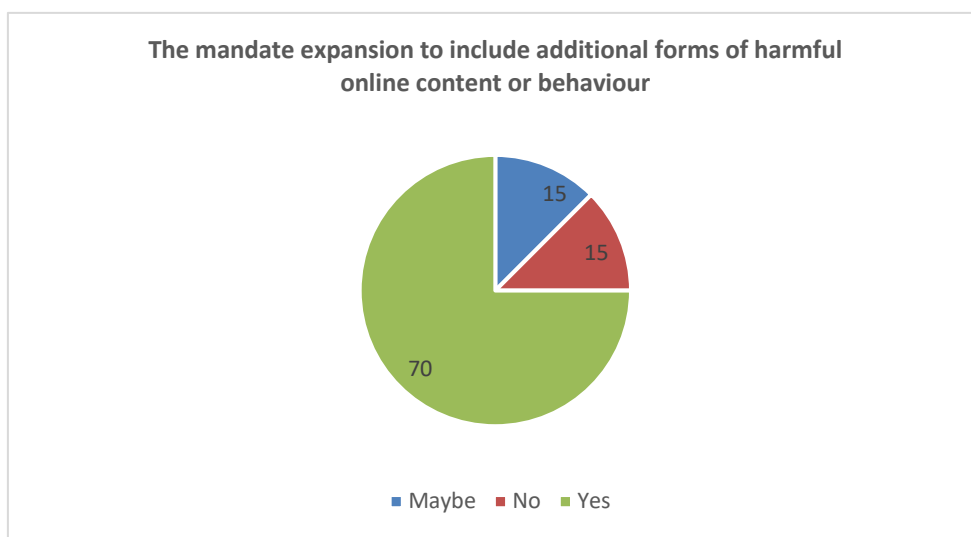


Figure 3: Mandate expansion to include additional forms of harmful online content or behaviour.

Figure 3 depicts that the mandate should be expanded to include additional forms of harmful online content and behaviour. Most of the respondents (70%) said that the FPB’s mandate should be expanded to include additional forms of harmful online content or behaviour to curb it. This signifies that participants see the need for more interventions in curbing online harm that comes in different forms or types.

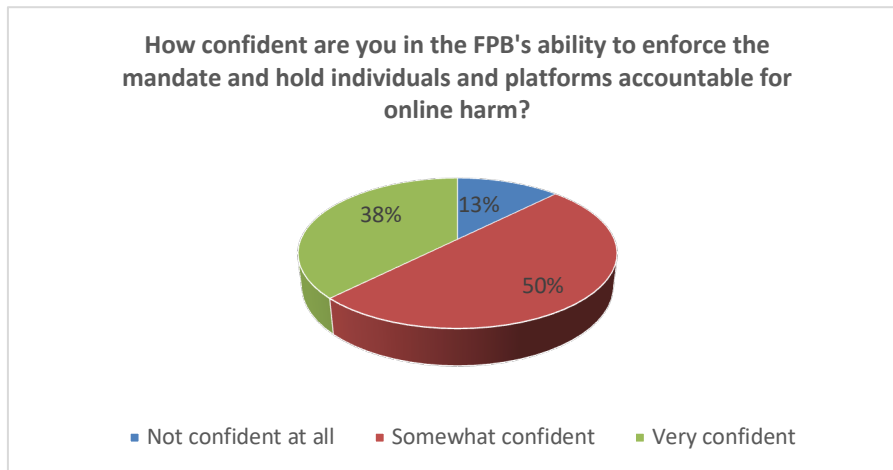


Figure 4: Confidence in FPB’s ability to enforce the mandate and hold individuals and platforms accountable for online harm.

The above figure highlights how students are confident in the ability of FPB to uphold and enforce their mandate to hold individuals and platforms accountable for online harm. Most of the students (50%) are somewhat not confident that the FPB will uphold its mandate and uphold individuals accountable while (37%) are confident that the mandate will help in holding individuals accountable and only (13%) of the students are not confident at all. This signifies that even though the FPB mandate exists most student still feels uncertain whether the mandate will be enforced on individuals who do not comply.

4.1. Student perception of FPB’s mandate

There are 5 questions that ask students’ perceptions of the mandate of the FPB. The results are as follows.

Table 1: Students’ perceptions of the mandate of the FPB

| Question | YES | MAYBE | NO |
|---|-------|-------|-------|
| Do you think FPB's mandate is necessary to curb online harm? | 66.7% | 22.2% | 11.1% |
| Do you think FPB's mandate has made it easier to report online harm? | 44.4% | 55.6% | 0% |
| Do you think FPB's mandate addresses your specific concerns about online content? | 77.8% | 0% | 22.2% |
| Do you think FPB's mandate should be enforced more strictly? | 55.6% | 22.2% | 22.2% |
| Do you think FPB's mandate is a long-term solution to online harm? | 77.8% | 11.1% | 11.1% |

From the table above, the results indicate that most of the students concur and have a similar perception of the questions asked. 66.7% of the students agree that the FPB’s mandate is necessary

to curb online harm. This gives a clear indication that students see the need for the FPB’s mandate to curb online harm. For various reasons, as discussed under student experience and knowledge, the FPB has the influence and existence to curb online harm. In the same vein, students are not quite sure whether the FPB mandate has made it easier to report online harm. 55.6% of students indicated *maybe* in response to the question of accessibility to report online harm. This could be a first step to enabling and promoting access to reporting online harm. There are 0% of students that indicated *No*. This can be regarded as a positive response, as 44.4% indicated *Yes*, this is clear that FPB has made access to report online harm. Some students find it easier, and some are not sure. FPB should work on this to ensure all students get to know and find it easy to report online harm.

77.8% of students agree that the FPB mandate addresses specific concerns they have about online content. This is a positive response rate that exhibits FPB on being on the right path on addressing concerns of online content. This, in the same line, brings concern on the 55.6% *Yes* response rate to whether FPB mandate should enforce more strictly. The comparison between the two response raises awareness to mention that yes, the FPB addresses the concerns of many of the students but are those concerns addressed adequately? The response rate indicates that FPB should work harder in ensuring that the concerns they address on online content should have a stricter enforcement through its mandate. On a more positive side, most of the students, 77.8%, of the students agree that FPB’s mandate to curb online harm is a long-term solution.

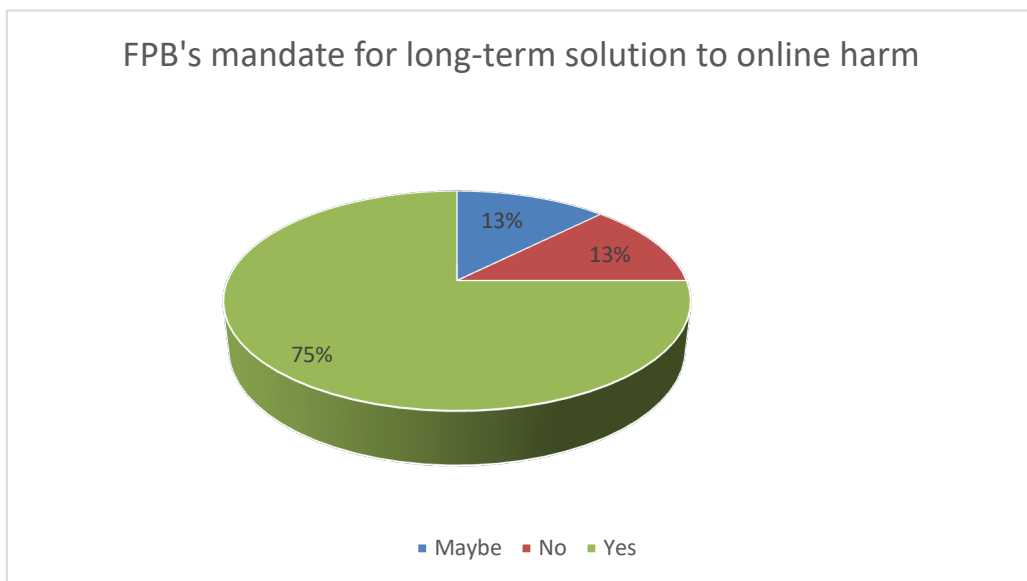


Figure 5: FPB’s mandate for long-term solutions to online harm

The above figure highlights students’ ideas on the importance of long-term solutions to online harm. The majority (75%) of the participants support the idea that the FPB will have a long-term solution to curbing online harm, while (13%) do not support that there will be long-term solution and only (12%) are uncertain of how the FPB’s mandate will have a long-term solution to curbing online harm.

4.2. Online harm – Education, social media, and individual responsibility

There are 4 questions that ask students on the education of online harm, social media, and the individual responsibility to be cautious. The results are as follows.

Table 2: Students perception on the education of online harm, social media, and the individual responsibility to be cautious.

| Question | Yes | Maybe | No |
|---|-------|-------|-------|
| Do you think more education is necessary to help people understand what constitutes online harm? | 88.9% | 11.1% | 0% |
| Do you think social media platforms have a responsibility to police their own content? | 77.8% | 11.1% | 11.1% |
| Have you ever felt that social media platforms are not doing enough to address online harm? | 77.8% | 22.2% | 0% |
| Do you think individuals have a responsibility to be more cautious about the content they consume online? | 100% | 0% | 0% |

The above table has a positive response rate on the prevention of online harm. Students strongly believe that there should be more education to help people understand what constitutes online harm. This is key in ensuring that people from different spheres are well educated and aware of what constitutes as online harm. This will reduce the level of online harm taking place. Students also strongly feel that social media platforms should have a responsibility to police their own content. This will contribute to the process of curbing online harm and making the process more convenient. In the same vein, students feel that social media is not doing enough to address online harm. If social media would take up the responsibility to police their own content and do more to address online, then the process of curbing online harm would be more effective. A 100% response rate indicates that students fully agree that as individuals, each one also has a responsibility to be more cautious about their behaviour online and the content they consume online. All this will be made possible through the awareness and education of online cyberbullying.

5. CONCLUSION

In conclusion, this study explored students’ perceptions of the effectiveness of the Film and Publication Board’s (FPB) mandate on curbing online harm. The findings suggest that students generally recognise the importance of regulating online content that is harmful to society even though they are uncertain about it. They also believe that the FPB’s mandate can effectively reduce the prevalence of online harm and that it should be more engaging with different individuals and be more visible in mass media. However, there are concerns about the practicality and enforcement of such measures and the potential limitations on freedom of speech.

Overall, this study highlights the complex and nuanced perspectives that students have on the issues of online harm, cyberbullying, and regulation. It emphasises the need for continued enforcement and roadshows to understand better the ways in which digital technology is shaping

our social, cultural, and political landscapes and the role that regulatory measures can play in promoting a safe and inclusive online environment.

RECOMMENDATION

Most of these recommendations stem from the findings of this study as this study explored the students' perceptions of the FPB's mandate to curb online harm. Most of the students suggested that measures such as age restrictions should be highly implemented. Another suggestion was that the FPB should engage more with the community while making sure that they are visible on mass media platforms. Additionally, students suggest that to improve the effectiveness of the FPB's mandate in curbing online harm while still maintaining freedom of expression they should: continue building up foundations and roadshows involving more young kids from secondary school in different parts of the country, evaluating content posted online before it is made available to the public to avoid the use of hate speech and avoid the limited expression.

REFERENCES

- Akrim, A. & Sulasmi, E. (2020). Student perception of cyberbullying in social media. *Aksaqila Jabfung*.
- Dhiman, D. (2023). Ethical Issues and Challenges in social media: A Current Scenario. *Ethical Issues and Challenges in social media: A Current Scenario (March 29, 2023)*.
- Farhangpour, P., Mutshaeni, H. N., & Maluleke, C. (2019). Emotional and academic effects of cyberbullying on students in a rural high school in the Limpopo province, South Africa. *South African Journal of Information Management, 21(1)*, 1-8.
- Gover, A. R., Harper, S. B., & Langton, L. (2020). Anti-Asian hate crime during the COVID-19 pandemic: Exploring the reproduction of inequality. *American journal of criminal justice, 45*, 647-667.
- Görzig, A., & Livingstone, S. (2012). Online risks and safety for children and young people: Evidence-based assessment and effective interventions in Europe. *Journal of Children and Media, 6(1)*, 71-91. doi: 10.1080/17482798.2011.634209
- Henry, N., & Powell, A. (2018). Technology-facilitated sexual violence: A literature review of empirical research. *Trauma, violence, & abuse, 19(2)*, 195-208.
- Hinduja, S., & Patchin, J. W. (2018). *Cyberbullying: An update and synthesis of the research. In Handbook of bullying in schools: An international perspective* (pp. 249-260). Routledge.
- Hong, J. S., Kral, M. J., Espelage, D. L., & Allen-Meares, P. (2018). The effects of school bullying victimization on college students' support for school-based violence prevention programs. *Journal of Interpersonal Violence, 33(19)*, 3005–3026. <https://doi.org/10.1177/0886260515624259>
- Jhaver, S., Ghoshal, S., Bruckman, A., & Gilbert, E. (2018). Online harassment and content moderation: The case of blocklists. *ACM Transactions on Computer-Human Interaction (TOCHI), 25(2)*, 1-33.

- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth. *Psychological Bulletin*, 140(4), 1073-1137.
- Langevin, R. (2016). The potential and limitations of regulating hate speech on social media. *International Journal of Law and Information Technology*, 24(2), 139-159.
- Liang, H., & Farkas, M. S. (2020). The effects of cyberbullying experience on college students' attitudes toward government intervention in online activities. *Journal of School Violence*, 19(1), 54-65.
- Nevondwe, L., & Odeku, K. O. (2014). Protecting Children from Exposure to Pornography in South Africa. *Bangladesh e-Journal of Sociology*, 11(2).
- Parliamentary Monitoring Group. (2016). *Films and Publications Amendment Bill [B37-2015]: critical inputs from public hearings*. Retrieved from <https://pmg.org.za/committee-meeting/23319/>
- Shoib, S., Philip, S., Bista, S., Saeed, F., Javed, S., Ori, D., Bashir, A. & Chandradasa, M. (2022). Cyber victimization during the COVID-19 pandemic: A syndemic looming large. *Health Science Reports*, 5(2).
- Smit, D. M. (2015). Cyberbullying in South African and American schools: A legal comparative study. *South African Journal of Education*, 35(2), 1-11.
- Steinberg, M., & Donald, D. (2018). Parental attitudes towards the Film and Publication Board's classification and regulation of media in South Africa. *Journal of Child and Adolescent Mental Health*, 30(2), 87-98.

SSIRC 2023-182**EXPLORING THE ROLE OF COMMUNITY RADIO IN FACILITATING PARTICIPATORY COMMUNICATION FOR SOCIAL CHANGE****M. Siphuma**

North-West University, South Africa

O. Ngake

North-West University, South Africa

A.N. Tshidzumba

North-West University, South Africa

ABSTRACT

This study aims to explore the role of community radio in facilitating participatory communication for social change. To get a deeper understanding of the perspectives of participants, the researcher used a qualitative research method. The study used purposive sampling to select 26 participants, consisting of three focus groups with seven participants per focus group and five employees at Musina FM. The researcher employed focus group discussion and in-depth interviews to collect information from the participants who are made up of regular listeners, the station manager, the programming manager and three presenters of the station. Thematic analysis was used in this study for data analysis since it supplies a systematic framework for analysing the data. The study found that community radio does aid the community through social change. However, listeners have divided opinions on the opportunity they are given in several of Musina FM's programmes to air out their challenges, with some respondents saying the opportunity is sufficient, while some respondents expressed that the time is not enough. This study concludes that Musina FM must create alternative platforms where listeners can send their problems, after which the presenter will address those problems holistically and supply adequate information over the course of a number of episodes.

KEYWORDS: community radio, participatory communication, social change, community, Musina FM, South Africa

1. INTRODUCTION

The media, both community and mainstream, are powerful motivators of societal change. The mass media, which dominates society and social features, are without a doubt considered the fourth pillar of democracy and are the most effective weapons for motivating and discouraging individuals. Community media, as a catalyst for development, has been a major player in facilitating participation to bring about positive changes in rural communities (Backhaus, 2019).

During the apartheid era, "community media developed as the oppressed voice and played a critical role in educating and organising grassroots populations against apartheid" (Dutta & Ray, 2017). However, this position has evolved into one of the catalysts for social change. As such, this study is likely to contribute to ongoing discussions about the role and influence of community media in bringing about social change in South Africa, as community radio provides an alternative to

mainstream media.

Community radio has traditionally aimed to provide a platform for marginalized groups, including those facing racial, gender, or class-based discrimination. It has been seen as a means of amplifying the voices of these communities and serving as a tool for overall development (Wabwire, 2018). Hence, the corroboration by Mwangi (2018) stating that "community radio is not about providing a service to the community, but rather the community doing something for itself, including owning and maintaining its means of communication."

Change in the social, cultural, political, and economic realms of disadvantaged groups has proven to be a seemingly impossible process despite enormous resources and efforts to improve people's lives (Nirmala, 2015). To

spread information on community development, sectors like healthcare, education, and agriculture, non-governmental organisations, women's organisations, and civic groups, among others, use community radio stations (Mhagama, 2016). This illustrates that community radio, as a potent type of alternative media to mainstream, commercial or state-owned and controlled media, has the potential to accelerate development if employed correctly (Dutta & Ray, 2017). Community radio serves as more than just a medium for assisting the community; it actively promotes self-help and empowers the community to address its issues, identify opportunities, and collectively decide how to resolve problems effectively.

Hence, marginalised communities continue to use community radio to accelerate community development in rural areas. Mhangana (2016) states that development agencies have realised that community radio has the potential to mobilise marginalised communities, provide information, and fast-track development; hence, these organisations use radio to alert people of the issues that affect them. As a result, community radio has been identified as a reliable medium of communication that not only informs communities about the issues that affect them but also educates people about issues that affect their community. Due to its accessible nature, community radio has the potential to play a role in bringing about change in disadvantaged communities since it allows members of the community to be part of ongoing discussions about political, social, and economic development.

Although national broadcasting is meant to serve the community, at times, it is impossible for them to play an active role in facilitating social change due to their large areas of responsibility. As a result, most communities, particularly rural communities, are largely excluded from the conversations that concern them, let alone those that seek to bring change within such communities. Community radio is an alternative to national broadcasters due to its accessibility to and use by citizens.

The ongoing discussions in development theory and practice about the virtues of participation and participatory communication make this situation worth investigating. Additionally, considering the expanding necessity, popularity, and inherent potential of community radio in other regions of the globe, this research seeks to contribute to the ongoing debate on community radio as a facilitator for social change.

This study uses Musina FM as a case study, a community radio station situated in Musina under

Musina Local Municipality in Limpopo Province, South Africa. The station broadcasts in Tshivenda with coverage within a 60-kilometre radius outside of Musina (Miche'l, 2015). Therefore, to effect change within the Musina Local Municipality, it is essential that the station disseminate information pertaining to matters that are of concern to the community while also creating a platform for discourse on issues that can expedite development and empower members of the community. The station should prioritise championing various issues, including but not limited to community building, agriculture, education, and healthcare. This study seeks to determine how, if at all, the station engages people in social discourse.

2. LITERATURE REVIEW

2.1. The historical development of community radio.

Community radio broadcasting most likely began in 1910, when American stations sent weather updates, news summaries, and market information through coded broadcasts (Cadiz, 2018). It was the Wagner-Hatfield Act, however, that led to the proliferation of stations with educational, religious, agricultural, labour, or non-profit programming (Ledwith, 2018). These broadcasts and the information they provided to American farmers were progressive in character. Radio has long had a tight relationship with farming since it provided a cost-effective means of disseminating information across huge areas. South America holds the earliest documented instances of community radio within nations that have a historical background of colonial domination (Lingela, 2018). It was clear that community radio would ultimately serve as a developmental communication tool, especially for community participation to bring about social change.

2.2. Community Radio in a Global Context

Community radio stations play a paramount role within the global landscape, serving as vital platforms for local communities to articulate their voices and engage in meaningful dialogue surrounding pertinent societal matters. Latin America has a rich and enduring tradition of community radio, notably observed in nations such as Bolivia and Brazil, where it materialised as a direct reaction to prevailing social and political turmoil (Carpentier & Cammaerts, 2006). The stations have played an important role in cultivating a climate of participatory communication and advancing the preservation and appreciation of indigenous cultures.

In the African context, it is noteworthy to highlight the significant characteristics exhibited by community radio stations, as they have emerged as essential instruments for fostering empowerment and facilitating development within marginalised communities (Kothari & Pathak, 2014). Furthermore, Makoni and Foster (2015) assert that the programming implemented by disadvantaged groups has effectively facilitated local dialogue, heightened awareness surrounding critical issues, and empowered communities.

On the other hand, it is worth noting that specific nations within the Middle East region exhibit a restricted degree of autonomy when it comes to community radio, primarily because of stringent media regulations (Hroub, 2017). Europe showcases a great number of community radio experiences, characterised by their remarkable diversity. Community radio plays a significant role in fostering cultural expression and promoting community cohesion in certain nations, such as

Spain and Italy (Garcia-Aviles & Fernandez-Cavia, 2018). Although research has been conducted extensively in various regions, it is important to acknowledge that there are still gaps in understanding the impact of community radio, particularly on its role as a facilitator for social change.

2.3. Community Radio in South Africa

In South Africa, community radio was established to fight Apartheid-era segregation. Its goal has been to empower the disadvantaged majority by empowering rural women's cooperatives, Afrikaner societies, and other religious organisations to obtain data (Buckley, 2020). Constitutional, social, cultural, and development considerations all lend credence to this idea in a country with such a diverse population, which includes nine provinces and more than a dozen distinct tribal groups.

Community radio stations in South Africa amount to more than 200, with a wide range of programmes in the country's numerous languages being broadcast, not including the many more whose licences are now being reviewed (Brown, 2018). Each of South Africa's nine provinces has at least one radio station, which includes religious, ethnic, and regional stations. Based on a hybrid approach established by the Independent Communications Authority's licencing authority and the Independent Broadcasting Act (IBA), radio follows suit. Community broadcasting is defined under the South African Independent Broadcasting Act (153 of 1993). The third level of broadcasting, community broadcasting, was designed to provide voiceless communities with a forum to express themselves.

2.4. Community radio and community development

Community radio plays an indispensable role in the advancement of communities through its provision of a platform that fosters local participation, dialogue, and empowerment. Its potential lies in its ability to facilitate substantive engagement and mobilise communities towards the realisation of constructive transformations (Donders, Pauwels & Loisen, 2019). As posited by Mhagama (2016), community radio stations function as efficacious instruments for disseminating information pertaining to diverse domains such as healthcare, education, and agriculture, all of which are essential for the advancement of the community.

The stations serve the dual purpose of not only disseminating pertinent information but also fostering a sense of community engagement and empowerment, wherein individuals are encouraged to actively partake in decision-making processes that directly impact the progress and advancement of their respective communities (Dutta & Ray, 2017). By virtue of its localised programming and deliberate emphasis on matters of local significance, community radio cultivates a profound sense of ownership, thereby empowering communities to identify and address their respective challenges, opportunities, and prospective remedies (Choudhury & Bhat, 2017). It serves as a catalyst for fostering meaningful discourse, amplifying the voices of historically marginalised individuals, and engendering a sense of communal unity in order to collaboratively confront and redress the multifaceted challenges that impact such communities.

As a platform that fosters collaboration and the exchange of knowledge, community radio plays a substantial role in contributing to the attempt at community development (Kothari & Pathak, 2014). Within the purview of the Independent Broadcasting Authority (IBA), it is incumbent upon communities in South Africa to undertake the establishment and management of their own broadcasts, affording them the opportunity to articulate their concerns, aspirations, and issues without censorship of external interference (Rama & Louw, 2018).

While community radio encompasses two discernible philosophical orientations, it is imperative to note that these orientations are not inherently mutually exclusive. By placing a heightened emphasis on the provision of service and fostering a sense of community spirit, the station can effectively enhance its ability to cater to the needs and demands of the surrounding area.

2.5. Community radio and participatory communication

Depending on the circumstances, community radio is ideal for reaching and empowering the poor (Myers, 2018). It is hardly surprising that individuals tend to use this knowledge to enhance human growth. On this premise, radio, according to Teer-Tomaselli and De Villiers (2018) has a private and unique aspect that makes it one of the most appealing and ubiquitous forms of mass media for participatory communication and development. As defined by Fraser and Restrepo-Estrada (2019), "community radio" includes both the creation and operation of a radio station by members of a specific community to further the community's own aspirations as well as those of the wider community.

2.6. Theoretical Framework: Participatory Development Communication (PDC)

Theory

As a theoretical departure, this paper makes use of the Participatory Development Communication (PDC) theory to explain the role of community radio in facilitating participatory communication for social change. PDC is the use of communication techniques to establish secure environments where communities can cooperatively identify problems and develop solutions (Bessette, 2015). The PDC focuses on methods of communication that involve people in the decision-making process of development. It aims to go back to the origins of its meaning, which, like the word "community," comes from the Latin word "communis," which means "common" (Wabwire, 2018). Therefore, the goal of communication should be to create common ground or to share ideas, information, or knowledge. "Sharing in this context implies a fair distribution of the information being communicated; hence, a balanced, two-way flow of information ought to virtually be considered a natural part of communication." (Wabwire, 2018).

The study employed the Communication for Social Change (CFSC) model, which is based on participatory development communication and is commonly used in communication for social change initiatives (Cadiz 2018). CFSC emphasizes an iterative process in which community conversations and collective action work together to bring about social change at the community level (Bhatt & Shah, 2021). This model aims to improve the health and welfare of all community members by addressing group dynamics, conflict resolution, leadership, and quality improvement (Cadiz, 2018; Servaes, 2012). Its approach recognizes that information is not simply transmitted from one person to another but rather shared or exchanged between multiple individuals,

highlighting the participatory nature of the process. The CFSC framework places a strong emphasis on participant engagement and interpretation, drawing upon semiotic and hermeneutic concepts that view understanding as an ongoing dialogue or cultural discussion (Cadiz, 2018). Furthermore, CFSC envisions a horizontal and symbiotic relationship between individuals who engage in the sharing of information.

The model has advantages that qualify and justify why it has been chosen for this study, such as inclusion, participatory approach, transparency, power sharing, sharing responsibility, and empowerment (Bhatt & Shah, 2021). The term "inclusion" refers to the practice of inviting all people or their representatives from all groups who will be affected by a decision or process, such as a development project, to take part in it (Dutta, 2022). This is done with the understanding that everyone, regardless of their socioeconomic standing, possesses the necessary skills, talent, and initiative to make the process successful.

Moreover, the model also ensures that there is transparency, and that everyone involved must work to foster an atmosphere that encourages candid communication and dialogue building. Furthermore, this model has been chosen for this study because it will help identify gaps in power sharing in a community to prevent one side from dominating the situation, authority and power must be distributed fairly among all parties involved (Choudhury & Bhat, 2017). Sharing responsibility is also an element of this model; all parties involved in a decision are equally responsible for it, and each should be aware of their own roles within each process (Dutta, 2022). Empowerment is an element in the CFSC model whereby participants with specialised knowledge should be urged to take charge of work related to their area of expertise, but they should also encourage others to become involved to foster mutual learning and empowerment. This model helped the researchers explore how community radio helps in social change through various elements, such as inclusion, transparency, power sharing, empowerment, and cooperation.

3. METHODOLOGY

3.1. Research design

This study makes use of an interpretivist paradigm, and qualitative research approach and is exploratory in nature to gauge listeners' perceptions of the importance of their own activities and the issues they care about, as well as the role that community radio plays in facilitating such communication for social change. An interpretivist paradigm is also best suited for this study because it recognizes the importance of understanding the meanings that people give to their experiences (Van der Walt, 2020). This is important in the study of participatory communication and social change because these are processes that are shaped by the meanings that people have about their communities, their problems, and their potential for change.

According to McClelland (2016), the qualitative approach allows for a deeper understanding of the complex and nuanced processes involved in participatory communication and social change and. The purpose of this study was to obtain an understanding of community radio's function as a facilitator of participatory communication for social change. The researcher in this study obtained first-hand accounts from regular listeners of the station regarding how community radio encourages engagement. Using a qualitative research method, this study attempts to obtain

comprehensive knowledge of the function of community radio in enabling participatory communication for social change.

3.2. Sampling method

Purposeful sampling was chosen for this study because it allows the researcher to select participants who are most likely to have the information or perspectives about the role of community radio in facilitating participatory communication for social change. Therefore, people who are actively involved in community radio, such as active listeners who are community members and employees were selected to partake in this study to give a wide cross-section of different views and or perspectives on the way this community radio station operates and the extent to which it is affecting or assisting in social development. within the community it serves. The sampling frame of the study consists of a total of twenty-six participants, which includes 21 residents of Musina Local Municipality who are regular listeners of Musina FM and are between the ages of 18 and 55, and six employees of Musina FM, consisting of the station manager, programmes manager, content producer, and three radio presenters.

3.3. Research instrument

The study utilised focus group discussions to collect data from community members who are listeners of Musina FM. It also utilised in-depth interviews with Musina FM's station manager, programme manager, and three radio presenters.

3.4. Data collection

Three focus groups were recruited for the investigation, with seven participants per focus group. A question-and-answer session with inquisitive questions was used to collect data to understand the differences among people previously considered to be a homogeneous group. The researcher used in-depth interviews to collect information from Musina FM's station manager, programme manager, and three presenters. In-depth interviews provide more specific information and create a more relaxed environment for information collection.

3.5. Data analysis

The study employed thematic analysis as the methodological approach to scrutinise the data obtained through conducting interviews with both community members and employees of community radio stations. The researchers initially acquainted themselves with the data by engaging in a comprehensive process of perusing and repeatedly reviewing the transcripts. Subsequently, the researchers proceeded to discern visible patterns of significance within the dataset by carefully categorising the transcriptions into overarching thematic clusters.

The themes were subsequently elaborated upon through the process of conceptualization and exemplification, wherein they were carefully delineated and supported by relevant samples derived from the dataset. Ultimately, the themes were subjected to a careful analysis, whereby a comprehensive examination was conducted to identify noticeable patterns and establish meaningful connections among them. The researcher employed a comprehensive textual analysis methodology in collaboration with a careful evaluation of the frequency of occurrence of a given theme.

This enabled the researcher to conduct an analysis and establish connections between various perspectives obtained from community members, thereby facilitating a comparative examination of the gathered data. The researcher employed the qualitative data analysis software NVivo as a tool to facilitate their execution of the thematic analysis. NVivo aided the researchers in the systematic arrangement, categorization, and examination of the data.

4. FINDINGS AND DISCUSSION

4.1. Demographic findings

This section describes the demographic background of the population of the study. This includes participants' age, location, and the period that they have been residing in Musina, as well as the number of years they have been actively listening to Musina FM or employed by the station. The analysis of these characteristics is important to link theory to practise and understand participant behaviour and decision-making processes. The section also includes figures that show the age range, location, residence time, and time spent listening to Musina FM of the participants. Most listeners are in the age range of 25–35 years, reside in Nancifield, and listen to the station every day. The section concludes by stating that these characteristics will be discussed further in Section 4.3 to validate them in line with the theory available in the study.

4.2. FGD and In-depth Interview Results

This section outlines in detail the FGD and interview findings in that order.

Focus Group Discussion Findings

- Listeners have mixed opinions on the opportunity they are given to air their problems on Musina FM. Some say the opportunity is sufficient, while others say the time is not enough.
- Musina FM uses several initiatives to engage the community and empower it through information, but some of these initiatives have drawbacks.
- The key takeaway point is that the programs that are aired on Musina FM come from community participation and solve community problems, but they need to allocate more time to reach a wider audience and solve more problems in society.

The interviews with Musina FM employees revealed the following findings:

The employees of Musina FM had somewhat understood of the concept of participatory communication. They said that participatory communication, *“is a process of communication that involves all stakeholders in a community, from the planning and implementation of a project to the evaluation of its impact”*.

Musina FM encompasses and carries out participatory communication through its programs in several ways and these include:

- *“Musina FM invites community members to participate in the planning and implementation of its programs. This ensures that the programs are relevant to the needs of the community and that they are effective in bringing about social change”*.

-
- “*Musina FM uses a variety of communication channels to reach out to the community, including radio, outside broadcasting and social media. This ensures that the community has access to information about the station's programs and that they can participate in them*”.
 - “*Musina FM empowers community members by providing them with the skills and resources they need to participate in its programs. This includes training them on how to use communication technologies and how to develop and implement community projects*”.

The employees of Musina FM identified several improvements that need to be made to the station's participatory communication initiatives and these include:

- “*Musina FM needs to improve its infrastructure in order to reach a wider audience and to provide better quality programming*”.
- “*Musina FM needs to reach out to marginalized groups in the community, such as women and youth through listener's tailored programs*”.
- “*Musina FM needs to make its programs more accessible to people with disabilities.*”

4.3. Discussion of findings

The study found that the Musina FM performs several roles, from providing information for social, political, and economic empowerment to acting as the voice of the voiceless in engaging public officials who can help solve community problems and then giving discussion platforms where community members can share ideas through carefully planned programmes aimed at tackling community issues. In the above section, the respondents did not give clear-cut answers as presented in the literature; however, they touched on some of these problems.

From the findings, the staff are not fully aware of the policy framework available in relation to participatory engagement, and the radio's top management needs to do more to educate the station's staff about this. The staff also gave several ways in which the radio station encompasses and carries out participatory communication through its programmes, which correctly fits the definition by Forde et al. (2019). The conceptualization of participatory communication by Musina FM is not far from the literature's ideals, and they just need to improve it so that they effectively engage the community in their programming.

The findings of this study further determined that Musina FM's programmes are the result of collective interactions and discussions between the station's staff and the community and that they range from topical issues and current affairs programmes in Musina to participatory initiatives where community members call in to discuss their problems and receive solutions. Thus, Musina FM fulfils the tasks stated in the research on how to promote social change through participatory communication. From this perspective, we can conclude that Musina FM's community engagement tactics are of the highest quality and guarantee that all community members' perspectives are heard at both the local and national levels.

According to the data findings, the research shows that listeners have differing opinions in the opportunities to voice their difficulties during different Musina FM programmes, with half of them believing that the opportunity is sufficient and the other half believing that there is not enough time. Reading through the other points also reveals that, in general, listeners were unhappy that Musina FM did not offer them enough time to engage in its programmes, which led to their concerns being unnoticed and unsolved. The management of Musina FM must therefore carefully consider this point if they are to fulfil their mandate to bring about social change in the community. The researcher's findings revealed that community members and employees frequently discussed the significance of community radio as a medium for amplifying the voices of marginalised individuals. The discourse also encompassed the multifarious challenges that community radio encounters, including but not limited to the persisting issues of financial sustenance and the constrictions imposed by regulatory frameworks.

The station must create alternative platforms where listeners can submit their problems, after which the presenter will address those problems holistically and provide adequate information over the course of several episodes. The main conclusion from this is that although the programmes that are broadcast on Musina FM undoubtedly include community involvement and address local issues, they must allot more time to reach a larger audience and address more general social issues as well as current ones. To empower everyone in the community and reach a larger audience, they must also have a thriving research department that actively investigates the problems and obstacles that are common in society.

According to the study, Musina FM employs a variety of measures to include the community and provide it with informational power. The listeners acknowledge that Musina FM is assisting them in communicating with the local government about a variety of issues that it must address, such as water challenges, but they also point out some of the disadvantages of some of the initiatives that the radio station is currently using to engage the community. These include a lack of time to discuss the issues and the absence of interactive platforms that would allow people to effectively connect with the radio station. Poor community participation in community radios, according to Yalala (2015), may restrict social awareness and suppress public democratic conversation, which is a crucial element in creating a sense of belonging for the public among community members. The research thus aimed to learn from the listeners how these issues may be resolved, helping the station raise its social status and boost the efficacy of its programming.

5. CONCLUSION

In conclusion, this research centred its attention on the examination of the pivotal function played by community radio in the facilitation of participatory communication with the aim of effecting social change. By its accessible nature, community radio provides an alternative platform that can be utilized to advance the needs of marginalised groups. The importance of community radio stations lies in their commitment to allocate resources and develop infrastructure that facilitates the provision of programming of exceptional calibre, which effectively aligns with the unique requirements and interests of the communities they serve.

Furthermore, the research explored the paramount importance of participatory communication and the facilitation of community empowerment via the dissemination of information. The utilisation of community radio possesses the inherent capacity to bestow empowerment upon communities, as it serves as a channel for the dissemination of information, while concurrently affording the community a platform to articulate their concerns and opinions. Nevertheless, the study has brought to light the notion that community radio stations may encounter certain obstacles in their endeavour to adequately cater to their respective communities. These challenges primarily revolve around the constrained broadcasting ranges and the lack of information accessibility and proper infrastructure.

Community radio stations play a pivotal role in facilitating participatory communication for the purpose of effecting social change. By prioritising the production of high-calibre programming, broadening the scope of broadcasting coverage, fostering active listener participation, and tackling pertinent socio-political matters, these radio stations possess the capacity to empower local communities, enhance societal consciousness, and actively contribute to the advancement of social welfare. In the pursuit of progress, it is of utmost importance for community radio stations to persistently undergo transformation and adjustment to cater to the ever-evolving demands of their respective communities, thereby cultivating a society that is more comprehensive and engaged in its nature.

REFERENCES

- Backhaus, B., 2019. Community radio as amplification of rural knowledge sharing. *Asia Pacific Media Educator*, 29(2), pp.137-150.
- Bessette, G. (2015). *Involving the community: a guide to participatory development communication*. Ottawa: South Bound printing.
- Brown, M. R. (2018). Giving voice to invisible women: 'FIRE' as a model of a successful women's community radio in Africa. *Howard Journal of Communications* 21: 164–181.
- Bryman, A. (2016). *Social research methods*: Oxford university press.
- Buckley, S. (2020). Radio's new horizons: Democracy and popular communication in the digital age. *International Journal of Cultural Studies* 3: 180–187.
- Cadiz, M. (2018). *Communication for empowerment: the practice of Participatory communication in development*, in *Media and global change: rethinking communication for development*: Thomson Learning: 145-158.
- Carpentier, N., & Cammaerts, B. (2006). Hegemony, democracy, agonism and journalism: An interview with Oliver Boyd-Barrett. *Journalism Studies*, 7(6), 964-976.
- Choudhury, S., & Bhat, S. A. H. (2017). Radio for rural empowerment: Community radio outlook in India. *Journal of Creative Communications*, 12(2), 217-235.

-
- Dutta, A., & Ray, A. (2017). *Community radio in northeast india: A concept in budding stage*. Retrieved from <http://edaa.in/updates/community-radio-in-north-east-india-a-concept-in-bud>.
- Donders, K., Pauwels, C., & Loisen, J. (2019). Sustaining European community radio in a digital age: Policy, strategy, and reality. In *Media policy and regulation in the European Union* (pp. 223-240). Palgrave Macmillan.
- Forde, S., Foxwell, K., & Meadows, M. (2019). *Developing dialogues: Indigenous and ethnic community broadcasting in Australia*. Australia: Bristol Intellect Books.
- Fraser, C., & Restrepo-Estrada, S. R. (2019). *Community radio handbook*. UNESCO.
- Garcia-Aviles, J. A., & Fernandez-Cavia, J. (2018). Community radio at the crossroads: Practitioners' perspectives in eight European Union countries. *Journal of Radio & Audio Media*, 25(1), 47-67.
- Hroub, K. (2017). Radio governance and regulatory constraints in the Arab world. In T. F. Carpenter & M. G. Powers (Eds.), *Community media in the information age: Perspectives and prospects* (pp. 49-60). Routledge.
- <https://www.mediaupdate.co.za/media/22134/musina-fm>
- Kothari, R., & Pathak, A. V. (2014). Listeners' participation in community radio programming: A study of some community radio stations in Africa. *Journal of Radio & Audio Media*, 21(1), 135-148.
- Ledwith, M. (2018). *On being critical: Uniting theory and practice through emancipatory action research*. *Educational Action Research*, 15(4):597-611, DOI: 10.1080/09650790701664021.
- Lingela, M. B. (2018). 'Community broadcasting in SADC: An overview', *Gender and Media diversity Journal*. Gender Links: Southern Africa: Available at: <http://www.genderlinks.org.za>. Accessed on 08/07/2015.
- Makoni, S., & Foster, S. (2015). African community radio interventions in HIV and AIDS policies. *Communication Research and Practice*, 1(4), 343-358.
- Maree, K. (2016). *First steps in research (Second edition. ed.)*. Pretoria: Van Schaik.
- Mhagama, P. (2016). The importance of participation in development through community radio: A case study of Nkhotakota community radio station in Malawi. *Critical Arts: A South-North Journal of Cultural & Media Studies* 30(1): 45-61.
- Miche'l, L. J. (2015). *Exploring aspects of participation at South African community radio stations*. University of Witwatersrand's master's by Coursework and Research Report in Journalism Studies. Johannesburg
- Milne, G., Ibanez-Miguel, J., & Fry, S. (2016). Campus and community radio in North America: Four case studies of doing radio differently. *Radio Journal: International Studies in Broadcast & Audio Media*, 14(2), 187-203.
-

Morgan, D. J. (1997). *Focus Groups as Qualitative Research*. The Modern Language Journal. <https://doi.org/10.4135/9781412984287>

Mwangi, S. (2018). A search for an appropriate communications model for media in new democracies in Africa. *International Journal of Communication*, 4(1932-8036), 1-26.

Myers, M. (2018). *Radio and development in Africa: A concept paper*. Final draft. Prepared for the International Development Research Centre (IDRC) of Canada.

Nirmala, Y. (2015). *The role of community radio in empowering women in India*. *Media Asia* 42(1-2): 41-46.

Rama, K., & Louw, P. E. (2018). *Community radio: people's voice or activist dream?* In: Louw, PE (ed.) *South African Media Policy: Debates of the 1990s*. Bellville, South Africa: Anthropos, pp. 71-78.

Sharma, A. (2018). *Radio and Television Broadcasting*. New Delhi: Random.

Teer-Tomaselli, R., & De Villiers, M. (2018). *Media studies: Content, audiences, and production*. Juta and company Ltd.

Van der Walt, J. L. (2020). Interpretivism constructivism as research' method in the humanities, and social sciences more to it than meets' the eye. *International' Journal of Philosophy, and Theology*, 8(1), 59-68.

Voveris, J. (2016). Community radio station content production and listener needs in the Pacific Island region. *Pacific Journalism Review*, 22(2), 57-72.

Wabwire, J. (2018). *The role of community radio in development of the rural poor*. *New Media and Mass Communication*, 10, doi: ISSN 2224-3267

Yalala, N. (2015). *The role of community radio in empowering women in India*, *Media Asia*, 42, 1-2, 41-46. doi: 10.1080/01296612.2015. 1072335

SSIRC 2023-184**SPILOVER EFFECTS OF FOREIGN EXCHANGE MARKET AND FINANCIAL DEVELOPMENT IN AFRICA****A.O. Noah**

North-West University, South Africa

O.O. David

North-West University, South Africa

W. Grobler

North-West University, South Africa

ABSTRACT

In recent years, there has been a great deal of research on the relationship between the foreign exchange market and financial development. While the foreign exchange market is important for facilitating international trade and investment, financial development is also vital for fostering economic growth and lowering poverty by increasing access to credit and financial services. The exact nature of the relationship between the two is still unknown because it is complicated. To establish the spill-over effects of the foreign exchange market on financial growth in Africa, this study contributes to the ongoing discussions on the topic by employing annual panel data (1980 - 2021) for the selected African countries. The panel autoregressive distributed lag (PARDL) estimate approach is used to examine the contribution provided by the foreign exchange market, while principal component analysis (PCA) is used to generate the composite index for financial development. The findings show that while inflation has a negative impact, the foreign currency market, per capita GDP, and trade openness have significant and positive influences on financial development. Maintaining a more stable foreign exchange market promotes financial development. Therefore, to support the levels of financial development, which in turn spurs economic expansion, the foreign exchange market should be improved.

KEYWORDS: finance, development, foreign exchange, composite index, PARDL

1. INTRODUCTION

The development of a robust financial system is crucial for achieving long-term and stable economic growth. This can be achieved through the activation of inactive savings, the simplification of transactions, and the attraction of foreign investment, resulting in increased availability of funds. Developed and well-regulated financial markets are essential for efficient resource allocation and can also facilitate sustained economic growth. The connection between financial development and production growth is primarily based on the role played by advanced financial systems in improving intermediation efficiency by reducing costs associated with information, transactions, and monitoring (Levine, 2004). Financial intermediation plays a crucial role in directing savings and resources towards the most viable investment opportunities by identifying entrepreneurs with the highest likelihood of successfully launching innovative products and processes. Additionally, it can oversee managerial activities, encourage responsible corporate

governance, offer insurance coverage, and enable the pooling of risks across sectors and over time. To foster a thriving financial system, it is widely agreed that nations should implement appropriate macroeconomic policies, encourage competition in the financial sector, and establish an open legal and institutional framework (Cherif & Dreger, 2016).

The effective development of the financial system is crucial to the economic growth of every African country, and policymakers must ensure that the necessary demand for financial services is met while closely monitoring the factors that influence its growth. It is important to identify and address factors that may hinder the growth of the financial sector and leverage those that support it. The intentional effort to enhance the financial sector is a key component of the economic growth aspirations of African countries. Governments in Africa have implemented various measures to regulate the financial sector and transition the economy from austerity to prosperity, leading to the liberalisation of the banking industry. However, despite these efforts, evidence suggests that there is still a significant disparity in financial development across African countries (Allen, Carletti, Cull, Qian, Senbet & Valenzuela, 2012; Beck & Maimbo, 2012).

Efforts have been made by several studies on the causal effects between economic growth and financial development (Egbetunde, Ayinde & Balogun, 2017; Farouq & Sambo, 2022 among others), while others have investigated the determinants of financial development in Africa and identified macroeconomic variables and institutional factors as major determinants (Abdulraheem, Ogbeide, Adeboje & Musa, 2019; Aluko & Ibrahim 2020; Bekana, 2023). One of the controversies surrounding these studies is the measurement of financial development where studies have used different indicators to measure financial development. The different indicators used by these studies to proxy financial development may be one of the reasons responsible for the different effects of the determinants on financial development. Also, there is still an ongoing discussion on the causal relationship between economic growth and financial development. While some empirical studies support the claim, others have debunked this (Arcand, Berkes & Panizza, 2015; Pephrah, Ofori & Asomani, 2019).

The foreign exchange market is an often-overlooked determinant of financial development, despite its significant role in economic activities across Africa. The stability of the financial system can be impacted by disequilibrium resulting from an excess demand for foreign currency (IBRD, 2015). Exchange rate fluctuations have significant macroeconomic implications, affecting key indicators such as trade balance, domestic output, unemployment, and inflation. Given that these fluctuations occur through international spill-over channels and involve domestic and external factors, as well as international capital flows and capital controls, their effective management is critical for emerging economies in Africa. Financial spill-over effects refer to the direct impact of country-specific developments on financial markets elsewhere (IMF, 2016). The transmission mechanisms through which fundamental changes in one financial market impact others are determined by the interlinkages between markets.

Regarding the financial sector, countries like Egypt, Morocco, Tunisia, and South Africa have reached a relatively high level of sophistication in terms of financial development. There are a few ones that are witnessing a steady expansion of the financial sector (such as Botswana, Cameroon, Ghana, Kenya, Mauritius, Namibia, Nigeria etc.), but many countries are lagging considerably

behind, especially those that are recovering from years of social unrest and hostilities. There are strong ties among these countries, which potentially facilitate financial spillovers. The prevailing financial development imbalances across African countries are, however, not consistent with obtaining financial and economic interconnectedness and linkages among African countries (Bara & Roux, 2017). This imbalance raises questions as to whether there are any financial spillovers from the financially developed countries that support growth and financial development in other African countries. The dominance of the very few financially developed economies in Africa implies that any shocks or changes to their financial sector are likely to affect many other African countries. Rather, the effects of changes in the financial development of these countries are likely to vibrate across other African countries.

Even though there are studies on the subject matter conducted in developed and some developing countries, there are very few in Africa, except in the very few studies conducted by Ojapinwa and Rotinwa (2016), and Farouq, Sulong, Ahmad, Jakada, and Sambo, (2020). Evaluating the connection between financial development and the foreign exchange market is crucial since financial development is a crucial aspect of a country's overall progress. The rapid depreciation of the local currency can cause instability in macroeconomic variables, which in turn, can hinder a nation's development (Ojapinwa & Rotinwa, 2016). Moreover, the composition of financial systems in Africa suggests that financial spillovers are likely, and their impact should be tested through empirical research. This study, therefore, seeks to provide answers to some of these issues raised regarding the subject matter, with the main objective of examining the spill-over effects of foreign exchange on financial development in Africa, while the specific objective is to examine the direction of causality between foreign exchange market and financial development.

2. REVIEW OF LITERATURE

2.1. Conceptual framework

The financial sector plays a crucial role in achieving both short- and long-term economic performance by channelling deposits from surplus economic units to deficit units. Financial development encompasses improvements in the way the financial sector operates, such as enhanced risk management procedures, broader diversification of opportunities, better quality of information, and stronger incentives for responsible lending and monitoring (Abdulraheem, Ogbeide, Adeboje & Musa, 2019). To assess financial sector development globally, the World Bank Global Financial Database (GFDD) has developed measures such as financial accessibility, depth, efficiency, and stability (Yusifzada & Mammadova, 2015).

Foreign exchange refers to the process of exchanging one currency for another, and it can also refer to the global market where currencies are traded continuously, 24/7 (Ahmed, 2015). The global market for currency trading is also known as the forex or foreign exchange market, and it operates as a decentralised global market for currency trading. This market is the largest and most liquid financial market globally, with a daily turnover exceeding \$6 trillion. It is accessible to anyone with an internet connection, and it remains open 24/7. The market caters to a wide range of users, including banks, businesses, the government, and individual traders, by facilitating currency exchange. The primary objective of the forex market is to promote international trade and investment (Bank for International Settlement, 2019).

Spill-over effects in finance are more prevalent and examined in stock and financial markets, with pronounced effects observed mainly during periods of crises as opposed to normal periods (IMF, 2013). Financial market spillovers refer to the co-movement between the financial markets of two countries (Shinagawa, 2014). This also encompasses the direct impact of country-specific developments on financial markets in other countries (IMF, 2016). Financial development in one country may result in spillover effects on the financial sector or the growth of neighbouring countries (Yildirim, Öcal & Erdogan, 2006). The transmission mechanisms through which fundamentals in one financial market affect other markets are dependent on the interlinkages of the markets. Financial market integration enhances the importance of financial factors in explaining spillovers relative to trade linkages. Spillovers tend to increase between countries that share similar macro-financial fundamentals and are most significant within sectors (IMF, 2016). Possible channels through which financial market spillovers occur include bilateral portfolio investment, bilateral trade, home bias, and country concentration (Shinagawa, 2014). Channels that establish macroeconomic and financial linkages tend to enhance spillovers across economies.

2.2. Theoretical review

One early proponent of the idea that financial development plays a role in growth is Bagehot (1873), who argued that England's extensive and well-organised capital markets facilitated resource allocation towards more productive investment (Huang, 2010). Other scholars who have contributed to this field include Schumpeter (1911), who emphasised the vital role of a nation's banking system in promoting profitable investment through savings, as well as Hicks (1969), Goldsmith (1969), McKinnon (1973), and Shaw (1973). The McKinnon-Shaw model describes the phenomenon of financial repression, which reduces both the quantity and quality of aggregate investment in the economy by lowering the interest rate on deposits and discouraging households from holding deposits that could finance productive investments. Several investigations, including Kapur (1976) and Mathieson (1980), have been sources of inspiration in this field.

In 1952, Robinson introduced the concept of "*demand following*," which suggests that financial development is a consequence of economic growth. The theory posits that as the real economy expands, there is an increase in demand for financial services, leading to the emergence of new financial institutions and markets to meet the growing demand for these services (Demetriades & Hussein, 1996). Rajan and Zingales proposed the interest group theory of financial development, also known as the simultaneous openness hypothesis, in 2003. This theory contends that the development of the financial system can be influenced by interest groups, global trade, and capital inflows. It suggests that financial and trade openness are crucial to promote the expansion of the financial sector. However, the idea argues that if the economy is only open to trade or capital, the growth of the financial sector will be limited. In other words, for a country's financial industry to flourish, both trade and capital borders must be opened simultaneously.

2.3. Empirical review

The revived interest in and expanding contributions to the study of the function of financial systems in economic development have been among the fundamental changes in development economics over the past few decades. The relationship between financial depth and economic growth is unmistakably good, yet it is still unclear what factors influence financial development

and how to build financial markets. In recent years, studying the factors that influence financial development has gained importance as a research area, among the recent work in this area are the works conducted by Oke, Uadiale, and Okpala (2011); Sami (2013), and Gwama (2014) among others, who examined the nexus between remittances and financial development, using different measurements of financial development and techniques for their estimations. They all concluded that remittances had a positive and considerable impact on financial development. Oke, Uadiale, and Okpala (2011) stated that remittances are likely used more for consumption than for productive endeavours in Nigeria, which suggests that they increase liquid liabilities more than loanable cash. Sami (2013) stated that it is crucial for regulators to make sure that remittances pass through official financial channels.

There are other studies that also investigated the relationship between macroeconomic variables, governance, and financial development (Takyi & Obeng, 2013; Rehman, Ali, & Nasir, 2015; Mbulawa, 2015; Zainudin & Nordin, 2017; Yao & Eugène, 2018; Abdurraheem *et al.*, 2019; Farouq *et al.*, 2020; Teshager, 2021 among others), where they all asserted that macroeconomic variables and governance have influenced financial development. Similarly, some studies also examine the influence of natural resources and human capital on financial development (Khalifaoui, 2015; Adegboye & Fagbemi, 2017; Ibrahim & Sare, 2018), where they reported that natural resources and human capital robustly influence financial development.

One of the recent studies that considered the influence of information technology (IT) on financial development is the one conducted by Ofori, Quaidoob and Ofori (2022), where they employed machine learning techniques to identify the key drivers of financial development in Africa for the period 1990 to 2019. The results showed that variables such as cell phones, economic globalisation, institutional effectiveness, and literacy are crucial for financial sector development in Africa. Evidence from the *Partialing-out lasso instrumental variable regression* reveals that while inflation and agricultural sector employment suppress financial sector development, cell phones and institutional effectiveness are remarkable in spurring financial sector development in Africa.

Despite the numerous studies on financial development, there are scarcely reported studies on the spillover effects of the foreign exchange market on financial development most especially on cross-country studies in Africa. One of these is the one conducted by Ojapinwa and Rotinwa (2016), which examines how exchange market pressure affects Nigeria's financial development using the autoregressive distributed lag (ARDL) technique and a yearly time series dataset from 1960 to 2015. They found that exchange market pressure in Nigeria has over time led to banking sector disequilibrium.

In their study, Singh, Theivanayaki, and Ganeshwari (2021), explore how volatility in the foreign currency market and the stock markets of Brazil, Russia, India, Japan, China, and South Africa (BRICS) affects the BRICS nations, using exponential generalised autoregressive conditional heteroscedasticity – EGARCH. They found that for India, China, and South Africa, GARCH results reported a two-way volatility spill-over between the stock market and foreign exchange markets. In contrast to spill-over from the stock market to the currency market, volatility spillover from the currency market to the stock market was perceived as more visible and robust in the

BRICS countries. The spillover from the foreign exchange market to the stock market showed a positive tendency.

From 1981 to 2020, David (2022) examined the effects of exchange rate shock on financial stability in Nigeria, using annual time series secondary data from 1981 to 2020. The results of the Structural Vector Error Correction Model (SVEM) showed that the greater amount of variation in the financial sector was caused by the aggregate demand shock to the general price level. Flowing from the above literature, it is shown that almost all the studies pay less attention to the spill-over effects of the foreign exchange market on financial development in Africa, and the very few studies (such as Ojapinwa & Rotinwa, 2016, & David, 2022) that looked at this only measured financial development by a single indicator and are country-specific studies. These are the gaps the present study intends to fill by examining the spill-over effects of the foreign exchange market on financial development by using a composite index for the indicators of financial development. In addition, this study also contributes to the existing literature on the subject matter by expanding the coverage (1980 - 2021) of the previous studies in Africa.

3. METHODOLOGY

This study is based on the demand-following hypothesis, which posits that economic growth in the real sector leads to financial development. This perspective argues that any enhancement of the financial system is merely a reactive response to a burgeoning economy. According to advocates like Robinson (1952), the demand for financial services increases with economic growth, leading to financial development. Therefore, there is a strong correlation between financial expansion and economic growth. Furthermore, in addition to other variables aimed at spurring economic activity, the foreign exchange market may also serve to stimulate activity in the financial sector.

To accomplish the aims of this research, we utilised a panel regression model to investigate the spillover effects of the foreign exchange market on financial development and to identify the causality direction between the two. The demand-following hypothesis framework, outlined above, establishes a context for the direct correlation between economic growth, the foreign exchange market, and financial development. Consequently, this investigation uses Equation (1), adapted from David (2022) and Singh *et al.* (2021), to construct an econometric model for studying the spillover effects of the foreign exchange market on financial development in Africa.

$$FID_{it} = \alpha_0 + \alpha_1 FEX_{it} + \alpha_2 X_{it} + \varepsilon_{it} \dots \dots \dots (1)$$

where *FID* represents the financial development index, *FEX* represents the foreign exchange market and *X* represents the control variables (such as economic growth, trade openness and inflation), α_0 is the constant parameter, $\alpha_1 - \alpha_n$ are the slope parameters, and the coefficients of each explanatory variable, ε is the disturbance term, *i* is for the countries and *t* is the period. The coefficients of all the explanatory variables are expected to be positive except for inflation.

Financial development is often proxied by financial depth such as the stock of private credit and market capitalisation as a share of GDP, and such measures focus on the quantity aspect of financial development. This study, therefore, uses a composite index with multiple financial development

indicators. The foreign exchange market is proxied by the exchange rate, and economic growth is proxied by the GDP per capita.

The statistical technique employed in this study is the panel autoregressive distributed lag (panel ARDL) model, which allows for the estimation of both short- and long-run relationships. The choice of this model is based on its numerous advantages, including the ability to deal with time series of different orders, its applicability to both small and large sample sizes, and its ability to address endogeneity concerns through proper lag selection for the regressors and dependent variable. This model has been previously utilised by scholars such as Pesaran, Shin, and Smith (2001) and Kutu and Ngalawa (2016). The general equation for the Panel ARDL model is as follows:

$$\Delta y_{it} = \theta_i [y_{i,t-1} - \lambda_i' X_{i,t}] + \sum_{j=1}^{p-1} \xi_{ij} \Delta_i y_{i,t-j} + \sum_{j=0}^{q-1} \beta_{ij}^1 \Delta X_{i,t-j} + \varphi_i + e_{it} \dots\dots\dots (2)$$

where $\theta_i = -(1 - \delta_i)$, group-specific speed of adjustment coefficient (expected that $\theta_i < 0$), λ_i' = vector of long-run relationship, $ECT = [y_{i,t-1} - \lambda_i' X_{i,t}]$, the error correction term, ξ_{ij}, β_{ij}^1 are the short-run dynamic coefficients. In this study, the PARDL is based on the following error-correction model:

$$\Delta FID_{it} = \theta_0 + \lambda_1 X_{it-1} + \sum_{j=0}^p \beta_{1ij} \Delta FID_{it-1} + \sum_{j=0}^p \beta_{2ij} \Delta FEX_{it-1} + \sum_{j=0}^p \beta_{3ij} \Delta ECO_{it-1} + \sum_{j=0}^p \beta_{4ij} \Delta INF_{it-1} + \sum_{j=0}^p \beta_{5ij} \Delta TOP_{it-1} + \varepsilon_{it} \dots\dots\dots (3)$$

where $X_{it-1} = (FID_{it-1} - \lambda_1 FEX_{it} - \lambda_2 ECO_{it} - \lambda_3 INF_{it} - \lambda_4 TOP_{it})$. This study utilises the pooled mean group (PMG), mean group (MG), and dynamic fixed effect (DFE) PARDL techniques. While country-specific heterogeneity is expected to exist in the short run due to local regulations, long-run homogeneity is assumed. Therefore, the PMG estimator is more efficient for this analysis compared to the MG and DFE estimators (Blackburne & Frank, 2007). To determine the most appropriate method, the Hausman test is employed to test the significance of differences between the PMG and MG or PMG and DFE estimations. If the null hypothesis is accepted, then the PMG estimator is chosen as it is efficient, otherwise, the null hypothesis is rejected. The definitions of all other terms remain unchanged as specified in Equations 1 and 2.

This study is based on the secondary data and the panel regression method is used for the analysis of the data collected (based on the outcomes of the unit root and cointegration tests). While the unit root is used to test for the existence of stationarity, the cointegration test is used to test for the existence of long-run relationships among the variables. The scope of the study is from 1980 to 2021, and the justification for this period is because of the series of financial liberation African countries have witnessed within this period as well as improving on the scope of the period that has been covered by the previous studies on the subject matter. The sources of the data include the International Monetary Funds (IMF) and the World Bank’s World Development Indicator (WDI).

4. DISCUSSION OF EMPIRICAL RESULTS

The summary statistics for the panel series variables used in this study are shown in Table 1. The values of the mean, maximum, minimum, standard deviation, skewness, kurtosis and Jarque-Bera are presented in the first column, while financial development index (FID), foreign exchange market (FEX), economic growth (ECO), inflation (INF) and trade openness (TOP) are presented in the second, third, fourth fifth and sixth columns respectively.

Table 1: The descriptive statistics

| Variables | FID | FEX | ECO | INF | TOP |
|--------------|----------|----------|----------|-----------|-----------|
| Mean | 0.136328 | 393.5653 | 2039.965 | 35.99496 | 89.96441 |
| Median | 0.108724 | 83.62273 | 1059.412 | 6.777413 | 59.71795 |
| Maximum | 1.008371 | 10439.43 | 16992.03 | 26765.86 | 1952.742 |
| Minimum | 0.000203 | 9.33E-12 | 32.07483 | -61.83317 | -55.67160 |
| Std. Dev. | 0.106090 | 939.3805 | 2579.747 | 609.0524 | 156.1768 |
| Skewness | 2.869223 | 6.231978 | 2.597691 | 40.73533 | 8.191642 |
| Kurtosis | 14.73634 | 51.56599 | 10.32994 | 1771.239 | 78.90971 |
| Jarque-Bera | 14933.75 | 219975.5 | 7063.000 | 2.74E+08 | 527685.9 |
| Probability | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Observations | 2100 | 2100 | 2100 | 2100 | 2100 |

Source: Authors' computations, 2023.

The results from Table 1 reveal that FID has a mean of 0.136 and a median of 0.109, which suggests that the distribution of FID is skewed to the right. The variable also has a high kurtosis. FEX has a very large standard deviation, with a mean of 393.565 and a maximum of 10439.43, indicating that the values of FEX are spread out over a wide range. The variable also has a positive skewness and a high kurtosis, suggesting that its distribution is highly skewed and peaked. ECO has a mean of 2039.965 and a median of 1059.412, indicating that the distribution of ECO is also skewed to the right, with a high kurtosis. INF has a negative minimum value, with high positive skewness and a very high kurtosis, indicating that its distribution is highly skewed and peaked. TOP has a mean of 89.964 and a median of 59.718, indicating that the distribution of TOP is skewed to the right. The variable also has a high positive skewness and a high kurtosis. The Jarque-Bera test results of the variables are also highly significant, which suggests that the variables are not normally distributed.

Table 2 shows the coefficients of correlation between every pair of the variables (financial development - FID, economic growth - ECO, inflation - INF, foreign exchange market - FEX and trade openness - TOP) with their respective p-values below each of the correlation coefficients. The p-values show the significance of the correlation coefficients. The results from Table 2 reveal that FID has a positive correlation with ECO and TOP, but has negative correlations with FEX and INF. ECO also has a negative correlation with FEX, but has positive correlation with TOP and FID. FEX has negative correlations with FII and ECO, but no significant correlation with INF and TOP. INF has no significant correlation with any of the other variables except a negative correlation with FID. TOP has positive correlations with ECO and FID, but no significant correlation with FEX and INF.

Table 2: The Correlation Matrix

| Variables | FID | ECO | FEX | INF | TOP |
|------------|--------------------|-------------------|-------------------|-------------------|-------------------|
| FID | 1.000 ----- | | | | |
| FEX | -0.197 (0.000) | 1.000000 ----- | | | |
| ECO | 0.422 (0.000) | -0.155 (0.000) | 1.000000 ----- | | |
| INF | -0.0.13 (0.554) | -0.018 (0.402) | -0.020 (0.369) | 1.000000 ----- | |
| TOP | 0.066 (0.003) | -0.049 (0.026) | 0.038 (0.085) | -0.011 (0.611) | 1.000000 ----- |

Source: Author's computations, 2023.

This reveals that all the explanatory variables are not correlated since none of the correlation coefficients of the regressors are as high as 0.8. The model estimated using the variables included in this study is therefore free of a serious problem of multicollinearity, as demonstrated by the likelihood of the absence of severe multicollinearity in the model (Asteriou & Hall, 2016).

4.1 Unit root and cointegration tests

The unit root test presented in Table 2 follows the panel unit root tests. The test was carried out to examine the stationary nature of each of the variables used in the model for the purpose of avoiding the consequence of spurious regression results arising from adopting the ordinary least squares (OLS) method with non-stationary series. The results of the unit root tests show that the variables FID, ECO, INF, and TOP are stationary in both level and first difference forms, while FEX is stationary only in first difference form.

Table 3: Panel unit roots test results

| Series | Stationary | PP- Fisher | ADF- Fisher | LLC | Breitung | IPS |
|------------|-------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| FID | Level | 139.898*** (0.005) | 134.645** (0.012) | -2.710*** (0.003) | 1.180 (0.881) | -2.081** (0.019) |
| | First Diff. | 2186.31 (0.000) *** | 586.283 (0.000) ** | -17.187 (0.000) ** | -14.834 (0.000) *** | -20.815 (0.000) *** |
| FEX | Level | 62.407 (0.998) | 79.701 (0.912) | 3.272 (0.999) | 3.121 (0.999) | 3.076 (0.999) |
| | First Diff. | -753.898 (0.000) *** | 484.069 (0.000) *** | -14.691 (0.000) *** | -4.375 (0.000) *** | -17.016 (0.000) *** |
| ECO | Level | 91.073 (0.727) | 72.941 (0.981) | -1.641** (0.050) | 4.214 (1.000) | 2.642 (0.996) |
| | First Diff. | 1409.89 (0.000) *** | 452.992 (0.000) ** | -9.380 (0.000) ** | -7.219 (0.000) ** | -15.636 (0.000) *** |
| INF | Level | 1010.41*** (0.000) | 475.309*** (0.000) | -11.092*** (0.000) | -6.017*** (0.000) | -15.547*** (0.000) |
| | First Diff. | 10449.0 (0.000) *** | 1246.12 (0.000) *** | -25.969 (0.000) *** | -9.552 (0.000) *** | -38.942 (0.000) *** |
| TOP | Level | 160.867*** (0.000) | 132.054** (0.018) | -1.315* (0.094) | -1.702** (0.044) | -2.323*** (0.010) |
| | First Diff. | 2227.01 (0.000) *** | 900.800 (0.000) ** | -21.359 (0.000) ** | -12.088 (0.000) ** | -25.569 (0.000) ** |

Source: Authors' computation, 2023. Notes: PP-Fisher, ADF – Fisher, Levin-Lin-Chu (LLC), Breitung and Im-Pesaran-Shin (IPS), (Null: Panels contain unit roots). Values in the parentheses () are the p-values of the test statistic, *, ** and *** indicate rejection of the null hypothesis at 10, 5 and 1% significance level.

Therefore, it may be said that the series are composed of various orders. The panel Johansen cointegration test is used to determine whether cointegration between the variables under discussion actually exists. Consequently, this study further conducted a Johansen cointegration test based on the model specification of the cointegration tests for long-run equilibrium in the model specification. The empirical findings from Table 4 show that there are at least two cointegrating vectors for financial development, foreign exchange market, economic growth, inflation and trade openness as indicated by the trace statistic and eigenvalue. There is a long-run equilibrium between financial development, foreign exchange market, economic growth, inflation and trade openness in Africa. This suggests that the combined panel series of financial development, foreign exchange market, economic growth, inflation and trade openness have long-term relationships.

Table 4: Panel Johansen cointegration test results

| Trace Test | | | Maximum Eigenvalue Test | |
|---------------------------|-----------------|---------|-------------------------|---------|
| Hypothesised No. of CE(s) | Trace Statistic | p-value | Max-eigen Statistic | p-value |
| None* | 567.5 | 0.000 | 430.9 | 0.000 |
| At most 1* | 240.8 | 0.000 | 177.3 | 0.000 |
| At most 2 | 124.0 | 0.039 | 90.74 | 0.686 |
| At most 3 | 93.32 | 0.615 | 84.68 | 0.829 |
| At most 4 | 104.8 | 0.299 | 104.8 | 0.299 |

Notes: * indicates rejection of the null hypothesis at 0.05 significance level. Both Trace and Max-eigenvalue tests indicate four cointegration equations at a 5% level.

4.2 Presentation and discussion of the regression results

In keeping with the objectives of this study, which include estimating the impact of the foreign exchange market on Africa's financial development. The panel ARDL variants (pooled mean group - PMG and dynamic fixed effect - DFE) are found to be the most suitable method for the estimate and analysis of the model after investigating the various tests. As a result, Tables 5 and 6 present the short-run and long-run estimations for the PMG and DFE estimates respectively.

Table 5: Panel regression estimates for financial development: Pooled mean group (PMG)

| Long-run estimates | | | | |
|---------------------|--------------|----------------|---------|---------|
| Variable | Coefficients | Standard error | z-value | p-value |
| FEX | 3.02e-06* | 1.65e-06 | 1.82 | 0.067 |
| ECO | 0.00002*** | 1.40e-06 | 15.20 | 0.000 |
| INF | -0.00004*** | 0.000013 | -2.81 | 0.005 |
| TOP | 0.00004** | 0.000012 | 3.61 | 0.000 |
| Short-run estimates | | | | |
| Variable | Coefficients | Standard error | z-value | p-value |
| ECT | -0.17578*** | 0.022735 | -7.73 | 0.000 |
| ΔFEX | 0.00123* | 0.000702 | 1.75 | 0.080 |
| ΔECO | 0.00002*** | 8.96e-06 | 2.70 | 0.007 |
| ΔINF | -0.00005 | 0.000103 | -0.47 | 0.637 |
| ΔTOP | 0.000040 | 0.000047 | 0.85 | 0.393 |
| Constant | 0.01783*** | 0.003688 | 4.82 | 0.000 |
| Observations | 2050 | | | |
| Number of groups | 50 | | | |
| Hausman test | | | | |

Source: Authors' computation and analysis of data, 2023. Note: FID is financial development, FEX is foreign exchange market, ECO is economic growth, INF is the inflation rate and TOP is trade openness, *, ** and *** indicate rejection of the null hypothesis at 10, 5 and 1% significance level.

Table 6: Panel regression estimates for financial development: Dynamic fixed effect (DFE)

| Long-run estimates | | | | |
|---------------------|--------------|----------------|---------|---------|
| Variable | Coefficients | Standard error | z-value | p-value |
| FEX | 4.52e-06 | 5.64e-06 | 0.80 | 0.423 |
| ECO | 0.00001*** | 3.47e-06 | 4.13 | 0.000 |
| INF | -0.00003*** | 7.97e-06 | -2.44 | 0.001 |
| TOP | 0.00011** | 0.000044 | 2.29 | 0.022 |
| Short-run estimates | | | | |
| Variable | Coefficients | Standard error | z-value | p-value |
| ECT | -0.09681*** | 0.005324 | -18.18 | 0.000 |
| ΔFEX | 6.32e-06 | 4.07e-06 | 1.55 | 0.121 |
| ΔECO | 6.15e-07 | 1.15e-06 | 0.54 | 0.592 |
| ΔINF | -1.31e-06** | 5.61e-07 | 2.33 | 0.020 |
| ΔTOP | 0.000013 | 0.000034 | 0.39 | 0.698 |
| Constant | 0.00969*** | 0.001071 | 9.05 | 0.000 |
| Observations | 2050 | | | |
| Number of groups | 50 | | | |
| Hausman test | 9.65 | | | 0.299 |

Source: Authors' computation and analysis of data, 2023. Note: FID is financial development, FEX is foreign exchange market, ECO is economic growth, INF is the inflation rate and TOP is trade openness, *, ** and *** indicate rejection of the null hypothesis at 10, 5 and 1% significance level.

From the PMG results in Table 5, the top section of the table shows the long-run estimates, which represent the relationship between financial development and the explanatory variables in the long run in Africa. According to the long-run estimates, the coefficients of the foreign exchange market, economic growth and trade openness are positive and statistically significant, while the coefficient of inflation is negative and statistically significant. This implies that the foreign exchange market, economic growth, and trade openness have positive impacts on financial development in Africa, while the inflation rate has a negative impact on financial development. As indicated by their coefficients, a-one-unit increases in the foreign exchange market, economic growth and trade openness are associated with an increase in financial development in Africa, while a one-unit decrease in the inflation rate is associated with an increase in financial development in Africa. The observed negative effect inflation rate, and the positive effects of the foreign exchange market, economic growth and trade openness are in support of the a priori expectations as posited by the theories and also in line with findings from some of the previous studies, including those reported by David (2022); Singh, *et al.* (2021); Abdulraheem, *et al.* (2019) among others.

The bottom section of the table shows the short-run estimates, which represent the relationship between financial development and the explanatory variables over the short-run. In addition to the explanatory variables used in the long-run estimates, the short-run estimates also include ECT, which is the error correction term that captures the short-run dynamics of the relationship between financial development and the explanatory variables. According to the short-run estimates, ECT

has a negative coefficient, which suggests that there is a tendency for the financial development to revert to its long-run equilibrium level in the short run, and this effect is statistically significant at the 1% level, with a p-value of 0.000.

Also, the coefficients of the foreign exchange market, economic growth and trade openness are positive and statistically significant (except for trade openness), while the coefficient of inflation is negative and statistically insignificant. This implies that the foreign exchange market and economic growth have positive impacts on financial development in Africa in the short run, while both trade openness and inflation rate do not influence financial development. The implications of this are that a one-unit increase in the foreign exchange market and economic growth are associated with an increase in financial development in Africa in the short-run. These observed positive effects of the foreign exchange market and economic growth are in support of the *a priori* expectations as posited by the theories and in line with findings from some of the previous studies, including those reported by Ojapinwa and Rotinwa (2016), Zainudin and Nordin (2017), Yao and Eugene (2018) among others.

The results of the DFE from Table 6 show that in the long-run estimates, the coefficients of the foreign exchange market, economic growth and trade openness are positive and statistically significant (except for the foreign exchange market), while the coefficient of inflation is negative and statistically significant. This implies that economic growth and trade openness have positive impacts on financial development in Africa, while the inflation rate has a negative impact on financial development. As indicated by their coefficients, a one-unit increase in economic growth and trade openness is associated with an increase in financial development in Africa. While a one-unit decrease in the inflation rate is associated with an increase in financial development in Africa. The observed negative effect inflation rate: and the positive effects of economic growth and trade openness are also in support of the *a priori* expectations as posited by the theories and in line with findings from some of the previous studies, including those reported by David (2022); Singh, *et al.* (2021); Abdulraheem, *et al.* (2019) among others.

The results of the short-run estimates in Table 6 show that the ECT also has a negative coefficient, which suggests that there is a tendency for the financial development to revert to its long-run equilibrium level in the short run, which is statistically significant at the 1% level, with a p-value of 0.000. In addition, the coefficients of the foreign exchange market, economic growth and trade openness are positive but statistically insignificant, while the coefficient of inflation is negative and statistically significant. This implies that the foreign exchange market, economic growth, and trade openness have no impact on financial development in Africa in the short run, while the inflation rate has negative influence on financial development. The implication of this is that a one-unit decrease in the inflation rate is associated with an increase in financial development in Africa in the short run. These observed negative effect of the inflation rate is in support of the *a priori* expectation as posited by the theories and in line with findings from some of the previous studies, including those reported by Zainudin and Nordin (2017), and Yao and Eugene (2018) among others.

The choice between the pooled mean group and dynamic fixed effects variants of the panel ARDL is also indicated by the value of the Hausman test result, which displays a statistic value of 9.65 with a p-value of 0.299. This implies that the null hypothesis is rejected since the Hausman test's statistic is not significant. The null hypothesis for the Hausman test is that "the PMG is preferable to DFE." Therefore, the PMG estimate is the most appropriate estimation for decision-making in this study.

5. CONCLUSION AND POLICY RECOMMENDATIONS

In recent years, there has been a great deal of research on the relationship between the foreign exchange market and financial development. While the foreign exchange market is important to facilitate international trade and investment, financial development is also vital for fostering economic growth and lowering poverty by increasing access to credit and financial services. The exact nature of the relationship between the two is still unknown because it is complicated. To establish the spillover effects of the foreign exchange market on financial growth in Africa, this study contributes to the ongoing discussions on the topic by employing annual panel data (1980 - 2021) for the selected African countries. The justification for this period is because of the series of financial liberation African countries have witnessed within the period as well as improving on the scope of the period that has been covered by the previous studies on the subject matter.

The panel autoregressive distributed lag variants (PARDL: PMG & DFE) estimate approach is used to examine the contribution provided by the foreign exchange market and other explanatory variables on financial development. Overall, the PMG analysis is chosen over DFE which provides evidence that financial development in Africa is positively influenced by the foreign exchange market, economic growth, and trade openness in the long run, while inflation has a negative impact. In the short run, the foreign exchange market and economic growth have a positive impact on financial development, while trade openness and inflation do not have a significant impact.

Based on the empirical results obtained from the PMG analysis, it can be concluded that there is a positive and significant long run relationship between financial development and the explanatory variables of the foreign exchange market, economic growth, and trade openness, while inflation has a negative and significant impact on financial development in Africa. The positive coefficients for the foreign exchange market, economic growth, and trade openness indicate that a one-unit increase in these variables is associated with an increase in financial development. Additionally, the short run estimates reveal that the error correction term (ECT) is negative and statistically significant, suggesting that financial development tends to revert to its long-run equilibrium level in the short run. Furthermore, the foreign exchange market and economic growth have positive impacts on financial development in Africa in the short run, while trade openness and inflation rates do not have a significant influence. These findings are in line with previous studies and theoretical expectations. Therefore, policymakers in Africa should focus on implementing policies that encourage economic growth, promote trade openness, and stabilise inflation to foster financial development.

Based on the empirical results and conclusion from this study, this study, therefore, recommends that policymakers should focus on maintaining low inflation rates to foster an environment that is conducive to financial development. Also, they should also work towards creating a more open

and competitive foreign exchange market, which can help to attract foreign investment and promote financial development. In addition, efforts should be made to promote economic growth through policies that support entrepreneurship, innovation, and investment in infrastructure. Finally, it is important to recognise the short-run dynamics of financial development and take measures to ensure that it stays on track towards its long-run equilibrium level. This can be achieved through policies that promote stability and sustainability in the financial sector.

REFERENCES

- Abdulraheem, A., Ogbeide, F., Adeboje, O. & Musa, M. (2019). Determinants of financial development in Nigeria, *Nigerian Deposit Insurance Company Quarterly*, 34(12)
- Adegboye, A. A. & Fagbemi, F. (2017). *Africa's financial development: Exploring the role of natural resources endowment and institutions*, African Economic Conference, African Development Bank Group, Addis Ababa, Ethiopia, available on https://www.researchgate.net/publication/333747208_africa's_financial_development_exploring_the_role_of_natural_resources_endowment_and_institutions.
- Ahmed, L. (2015). The effect of foreign exchange exposure on the financial performance of commercial banks in Kenya, *International Journal of Scientific and Research Publications*, 5(110), 115-120.
- Asteriou, D. & Hall, S. G. (2011). *Applied Econometrics*, Third Edition, Macmillan Education, Palgrave.
- Allen, F., Carletti, E., Cull, R., Qian, J., Senbet, L. & Valenzuela, P. (2012). *Resolving the African financial development gap: Cross-country comparisons and a within-country study of Kenya* (No. w18013), National Bureau of Economic Research.
- Bagehot, W. (1873). *Lombard Street: A Description of the Money Market*. London: Henry S. King.
- Bank for International Settlement (2019). Triennial central bank survey of foreign exchange and OTC derivatives markets.
- Bara, A. & Roux, P. L. (2017). South Africa's financial spillover effects on growth and financial development in the Southern African Development Community, *International Journal of Economics and Financial Issues*, 7(5), 400-412.
- Beck, T. & Maimbo, S. M. (2012). *Financial sector development in Africa: Opportunities and challenges*, World Bank, Washington, DC.
- Bekana, D. M. (2023). Governance Quality and Financial Development in Africa, *World Development Sustainability* 2, 100044, 1-14
- Blackburne, E. & Frank, M. (2007). Estimation of nonstationary heterogeneous panels. *The Stata Journal*, 7(2), 197 - 208.
- Cherif, M. & Dreger, C. (2016). Institutional determinants of financial development in MENA countries, *Review of Development Economics*, 20(3), 670-680, <https://doi.org/10.1111/rode.12192>
- David, O. N. (2022). Exchange rate shock and financial stability in Nigeria: An empirical analysis, *International Journal of Humanities Social Science and Management*, 2(5), 166-177

-
- Demetriades, P. & Hussein, K. (1996). Financial development and economic growth: Cointegration and causality tests for 16 countries, *Journal of Development Economics*, 51,387-411. [http://dx.doi.org/10.1016/S0304-3878\(96\)00421-X](http://dx.doi.org/10.1016/S0304-3878(96)00421-X)
- Egbetunde, T., Ayinde, T. O. & Balogun, A. A. (2017). Interest rate liberalization, financial development and economic growth in Sub-Saharan African Economies, *African Journal of Economic Review*, V(II), 109-129.
- Farouq, I. S & Sambo, N. U. (2022). Real exchange rate and economic growth: The interacting role of financial development in Nigeria, *Iranian Economic Review*, 22(4), 905 -921, DOI: 10.22059/ier.2021.81587
- Farouq, I. S., Sulong, Z., Ahmad, A. U., Jakada, A. H. & Sambo, N. U. (2020). The effects of economic growth on financial development in Nigeria: Interacting role of foreign direct investment: An application of NARDL, *International Journal of Scientific & Technology Research*, 9(3), 6321-6328
- Goldsmith, R. W. (1969). *Financial Structure and Development*, New Haven, CT: Yale University Press.
- Gwama, M. (2014). Explaining weak financial development in Africa, *African Review of Economics and Finance*, 6(2), 69–87
- Hicks, J. R. (1969). Automatists, Hawtreyans, and Keynesians. *Journal of Money, Credit and Banking*, 1(3), 307–17.
- Huang, Y. (2010). *Determinants of financial development*, Palgrave Macmillan
- Ibrahim M. & Sare Y. A. (2018). Determinants of financial development in Africa: How robust is the interactive effect of trade openness and human capital? *Economic Analysis and Policy*, 1-14, <https://doi.org/10.1016/j.eap.2018.09.002>
- International Bank for Reconstruction and Development (2015). Management's Discussion & Analysis and Financial Statements, Available on <https://thedocs.worldbank.org/en/doc/933611586359723822-0040012020/original/IBRDFinancialStatementsJune2015.pdf>
- International Monetary Fund- IMF (2016). *Global financial stability report: Potent policies for a successful normalization*. Available from: <http://www.imf.org>.
- IMF. (2013). *Dancing together? Spillovers, common shocks and the role of financial and trade linkages*, World Economic Outlook: Transitions and Tensions. Ch. 3, available on <https://www.imf.org/external/pubs/ft/weo/2013/02/pdf/c3.pdf>.
- Kapur, B. K. (1976). Alternative stabilization policies for less-developed economies, *Journal of Political Economy* 84(4), 777–95.
- Khalfaoui, H. (2015). The determinants of financial development: empirical evidence from developed and developing countries, *Applied Economics and Finance*, 2(4), DOI:10.11114/aef.v2i4.894
- Kutu, A. A. & Ngalawa, H. (2016). Dynamics of industrial production in BRICS countries, *International Journal of Economics and Finance Studies*, 8(1).
- Levine, R. (2004). Finance and growth: Theory and evidence in Aghion, P. & S. N.Durlauf. (eds.), *Handbook of Economic Growth*, London: Elsevier 1A, 865-934.
-

-
- Mathieson, D. J. (1980). Financial reform and stabilization policy in a developing economy, *Journal of Development Economics*, 7(3), 359–95.
- Mbulawa, S. (2015). Determinants of financial development in Southern Africa Development Community (SADC): Do institutions matter? *European Journal of Accounting Auditing and Finance Research*, 3(6), 39-62.
- McKinnon, R. I. (1973). *Money and Capital in Economic Development*. Washington D.C. Brookings Institution
- Ofori, I. K., Quaidoob, C. & Ofori, P. E. (2022). *What drives financial sector development in Africa? Insights from Machine Learning*, Development Bank of Nigeria, Working Paper Series 222, RC 1215724
- Ojapinwa, T. V. & Rotinwa, B. O. (2016). Foreign exchange market pressure and financial development in Nigeria, *FUNAI Journal of Humanities and Social Sciences*, 2(1), 24-38.
- Oke, B. O., Uadiale, O. M. & Okpala, O. P. (2011). Impact of workers' remittances on financial development in Nigeria, *International Business Research*, 4 (4), 218- 225.
- Pesaran, M. H., Shin, Y. and Smith, R. (2001). Bound testing approaches to the analysis of level relationships, *Journal of Applied Econometrics* 16, 289-326, <http://doi.org/10.1002/jae.616>
- Peprah, J. A., Ofori, I. K. & Asomani, A. N. (2019). Financial development, remittances and economic growth: A threshold analysis. *Cogent Economics & Finance*, 7(1),1625107.
- Rajan, R. G. & Zingales. L. (2003). The great reversals: The politics of financial development in the twentieth century. *Journal of Financial Economics*, 69, 5–50.
- Rehman, M. I., Ali, N. & Nasir, N. M. (2015). Linkage between financial development, trade openness and economic growth: Evidence from Saudi Arabia, *Journal of Applied Finance and Banking*, 5(6), 127-141.
- Robinson, J. (1952). *The Rate of Interest and other Essays*, London: Macmillan
- Sami, J. (2013). Remittances, banking sector development and economic growth in Fiji, *International Journal of Economics and Financial Issues*, 3(2), 503-511.
- Schumpeter, J. A. (1911). *The Theory of Economic Development*, Cambridge MA, Harvard University Press.
- Shaw, E. S. (1973). *Financial Deepening in Economic Development*, New York, Oxford University Press
- Shinagawa, Y. (2014). Determinants of financial market spillovers: The role of portfolio diversification, trade, home bias, and concentration, International Monetary Fund, Working Paper WP/14/187, available on <http://www.img.org>.
- Singh, D., Theivanayaki, M. & Ganeshwari, M. (2021). Examining volatility spillover between foreign exchange markets and stock markets of countries such as BRICS Countries, *Global Business Review*, 1–21, DOI: 10.1177/09721509211020543
- Takyi, P. O. & Obeng, C. K. (2013). Determinants of financial development in Ghana, *International Journal of Development and Sustainability*, 2(4), 2324-2336.
- Teshager M. A. (2021). Determinants of financial development in Ethiopia: ARDL approach, *Cogent Economics & Finance*, 9(1), 1-15, DOI: 10.1080/23322039.2021.1963063
-

Yao, S. P. & Eugène, K. (2018). Institutions and financial development in African countries: An empirical analysis, *Business, Management and Economics Research*, 4(5), 43-50

Yildirim, J., Öcal, N. & Erdogan, M. (2008). Financial development and economic growth in Turkey: A spatial effect analysis, available on <http://www.ecomod.net/sites/default/files/document-conference/ecomod2008/611.pdf>.

Zainudin, N. B. & Nordin, N. B. (2017). The determinants of financial development in four selected ASEAN countries: A panel data analysis, *International Journal of Business, Economics and Law*, 12 (1), 71-80

SSIRC 2023-185**PSYCHOLOGICAL WELL-BEING THROUGH THE LENS OF THE UNEMPLOYED GRADUATES IN THE EASTERN CAPE, SOUTH AFRICA****J.G. Kheswa**

University of Fort Hare, South Africa

L. Bacela

University of Fort Hare, South Africa

ABSTRACT

Previous research unemployment continues to escalate and yields debilitating effects such as pessimism, languishing, impaired sense of purpose in life and exposure to risk sexual behaviour. In qualitative research approach, twelve participants, namely, six male graduates and six female graduates from one university under Raymond Mhlaba Municipality, were interviewed after they gave their consent. The Ethical Clearance Certificate (KHE031SBAC01) from the designated university permitted the researcher to ensure that the participants' informed consent, privacy, confidentiality, and rights to dignity are respected, thus, none of the participants withdrew from the study. The tape-recording device was used as the data instrument. Using Tesch's thematic analysis for categorizing and grouping themes, the researchers read and reread the statements given by the participants for confirmability. In exploring the psychological well-being of unemployed graduates in the Eastern Cape, South Africa, the following theoretical frameworks were followed: Jahoda's latent deprivation theory, Hobfoll's conservation of resource theory and Festinger's social comparison theory. Findings established that in the community, unemployed graduates are perceived as failures, thus, they reported social isolation, suicidal ideation, hopelessness, lack of self-confidence and substance abuse as a form of coping. Half of the female participants revealed to have developed sexual relationships with multiple sexual partners for economic survival and to provide for their children while male participants expressed addiction to substances, and criminal behaviour. However, unemployed graduates whose family members and friends provided spiritual and financial support, reported to have buffered against the stigma. Based on these findings, there is a need for the government sectors to provide internship programmes and business opportunities for the unemployed graduates. Finally, an intervention of the social service professionals such as social workers and psychologists could mitigate the scourge of impaired psychological functioning among the unemployed graduates.

KEYWORDS: discrimination; graduates; unemployment; sexual behaviour; support.

1. INTRODUCTION

Unemployment has been a long-standing issue especially among university graduates (Mamun et al., 2020), Globally, Bangladesh is ranked the second highest at 10.7% after Pakistan in Asia (International Labour Organization, 2019). In Vietnam, only one in ten graduates is employed (Pham, 2013). Greece and Spain are not exceptional as they have the highest unemployment rates of unemployed graduates in Europe, at 27.5% and 26.1%, respectively (ILO, 2015). In Africa in

2020, three countries exhibited relatively high rates of youth unemployment. South Africa had the highest rate of 55.75 %, followed by Swaziland at 47.37% and Namibia at 41.17% (Maka et al., 2021). Shockingly, South Africa has maintained an unemployment rate of over 50% among its youth for more than two decades (Falakahla, 2018). According to the United Nations (2015) such high unemployment rates calls for immediate attention to the policy makers around the world especially in Africa where the estimates are that by 2045 the youth population shall have doubled to 400 million.

Unemployment refers to a state of being without a job, consequently, having no financial remuneration or income (Nonyana & Njuho, 2018) and are mostly associated with decline in overall health (Mokona et al., 2020). Whether the causes of unemployment are recession, unpredictable natural disasters, pandemics such as COVID-19, or labour market structure, it cannot be denied that its impact on the psychological well-being is unbearable and could lead to stress (Korniienko et al., 2020; Voßemer et al., 2018; Putter, 2021). Although many countries such as in Germany, United Kingdom and Switzerland have made efforts to curb unemployment through entrepreneurship and internships for college and university graduates (Shazia al., 2020) (Hebling et al., 2020; Sacchi et al., 2016), the persistently high rate of unemployment in South Africa, continues to yield unbearable effects on the psychological well-being of the unemployed (Mncayi & Shuping, 2021). To be specific, black South African youths (aged 24-35 years) are the most affected as the majority lives in cramped homes and poverty despite having completed their tertiary education unlike their Indians, Coloureds and Whites counterparts (Baldry, 2016; Maka et al., 2021; Musitha & Mafukuta, 2018). While some research information is available on the association between unemployment and depression or stress among people, there is dearth of qualitative studies comprising unemployed graduates in the Eastern Cape, South Africa, sharing how their psychological well-being is impaired.

In previous studies, Chinyamurindi and Harry (2020) found that South African graduates lack employment due to lack of right career choice while Mseleku (2019) reported that the reason for Mangosuthu University of Technology and University of Zululand graduates to be unemployable is lack of experience or vocational training. In this study, a graduate refers to an individual who studied at the university or college and holds a bachelor's degree or postgraduate qualification. The goal of this study is to narrow the knowledge gap and make empirical facts on the subject under investigation, based on the following research questions: (i) What are the effects of unemployment on the psychological well-being of unemployed graduates? (ii) How have the significant others contributed towards their psychological well-being?

2. LITERATURE REVIEW

In this section, the effects of unemployment on the psychological well-being among university graduates will be discussed.

2.1 Psychological well-being mental health of unemployed graduates

Psychological well-being is a diverse multidimensional concept (Wissing & Van Eeden, 2002), which develops through a combination of emotional regulation, personality characteristics, identity, and life experiences (Li & Hasson, 2020). One study in Sweden indicates that

psychological well-being tends to manifest itself when unemployed graduates do not accept their circumstances (i.e., impaired self-acceptance), express hostility towards others (impaired human relations) and lack sense of purpose and personal growth to an extent of being engulfed by anxiety, depression, worries and alcohol abuse (Hakulinen et al., 2019). Furthermore, owing to low level of law and order in societies, the unemployed graduates do not become prosocial and prevent criminality (impaired environmental mastery) and make informed decisions about their lives (impaired autonomy).

2.2 Stress

Generally, stress is typically described as a negative or a positive condition in human that can have an impact on a person's mental and physical well-being. Stress may have biological, emotional, mental, social, and spiritual consequences (García-León et al., 2019). In Korea, 39.5% of stress cases were reported among unemployed university graduates (Lim et al., 2018). Consistent with this finding, Mokona et al (2020) found that among Ethiopian 1419 unemployed graduates, long duration of unemployment, uneven social support, substance abuse and low self-esteem correlated with stress. Once unemployed graduates realize how they are treated and welcome in their immediate environment (for example, society, church, neighbours, relatives, and peers) they tend to apply different strategies to cover their unemployed status by being socially withdrawn, in denial and into substance abuse (Bronfenbrenner, 2005; Gurr-Janbauer- Gans, 2017).

2.3 Postpartum depression among unemployed female graduates

It should be borne in mind that prior becoming unemployed, there are female students who engage in risk sexual behaviour namely, multiple sexual partners, unsafe sex and hookups while at the universities (Hoho & Kheswa, 2017). Some become pregnant and give birth and consequently experience postpartum depression and drop out prior to completing their second degrees (Mashabela & Kheswa, 2020). Postpartum depression is defined as the mood disorder characterized by rejection and resentment towards the offspring due to unemployment, abandonment by the baby's father, lack of proper home and basic needs such as food for the baby. It is common in the first six months following birth of the baby (Barton et al., 2017).

2.4 Coping and sexual risk behaviour among unemployed graduates

Consistent with the notion of gender socialization (Mulia et al., 2014), unemployed women graduates might resort to coping behaviours other than substance use than their male counterparts who have the tendency to externalize behaviours through engaging in criminal and risk sexual behaviors (Nolen-Hoeksema & Girgus, 2014). Phiri et al., (2023) assert that when partner support (emotionally and financially) and unconditional love from the family members is robust, the psychological well-being of the unemployed female graduates would overcome how others perceive them. In the same vein, Aflakseir and Mahdiyar (2016) emphasize that the church and spiritual support are proven to provide mental hope and improve positive coping strategies.

2.5 Social support

Social support may be viewed as positive when family members, neighbours and friends provide emotional support and assistance such as alerting the unemployed about the posts even if they are temporary (Magagula, 2017). Through interaction and influence of those who established small businesses, according to Bronfenbrenner's Ecological System Theory, they may choose to be pro-

active and have ideas of making money than to be despondent due to unemployment (Bronfenbrenner, 1994). However, a lack of social support may account for reduced mental health, psychosomatic complaints, and deterioration in physical health (Croezen et al., 2012). The extremes could involve anti-social activities such as in Cross- River State Command, Nigeria, where Adeniyi et al., (2019) established a direct relationship between unemployment and drug-trafficking. The findings were that 6.3. % of unemployed graduates was arrested for selling drugs to support their families.

2.6 Theoretical Framework

The study is underpinned by multiple theories as they are related in terms of comprehending the psychological well-being of unemployed graduates. The theories are Jahoda's latent deprivation theory, Festinger's social comparison theory, Hobfoll's conservation of resource theory and Ryff's six-dimensions of psychological well-being. According to the latent deprivation theory (Jahoda, 1981), employment serves as universal psycho-social needs. According to Jahoda, individuals engage in employment primarily for financial rewards (manifest functions) but also benefit from several latent by-products (latent functions), which are associated with the development and maintenance of psychological well-being. Conservation of resource theory by Hobfoll (1989, 2010) whose key principle that people strive to have their own resources, money, house and being employed to optimize their well-being. However, when they are unemployed, their mental health diminishes and subsequently, experience discrimination from others. According to Festinger's (1954) social comparison theory, unemployed individuals may be viewed as having a lower social ranking relative to their employed counterparts. In addition, there could be comparison among peers who are unemployed versus the employed to determine who have acquired wealth, properties, cars or advanced educationally than others. The wider the comparison, greater is the tendency for the unemployed to be rejected and prejudiced by those who are successful.

3. RESEARCH AIM AND OBJECTIVES

The broad aim of the study is to explore how the unemployed graduates cope with adversities. To achieve this, research objectives of the study are as follows:

- (i) To determine the effects of unemployment on the psychological well-being of unemployed graduates.
- (ii) To investigate how significant others contributed towards their psychological well-being?

4. METHODOLOGY

The qualitative approach was selected as the suitable method to interview twelve unemployed graduates in a natural setting, face-to-face. The sample was drawn from one South African university in the Eastern Cape region. As Creswell and Creswell (2017) is of the opinion that the sample should be homogenous in terms of culture, race and experiences, the researchers approached the Registrar of the University to provide them with the database of the students who graduated since 2016 to 2021 after being shown the Ethical Clearance Certificate (KHE031SBAC01). The recruitment then followed by means of emailing forty alumni requesting their voluntary participation in the study although the target sample was the twelve that should meet the following criteria:

- Be unemployed.
- Residing within the radius of 60 km to be able to be part of the face-to -face (focus group) interviews.

This type of approach saved the cost and time although some indicated to have found the internships and permanent employment. After waiting for about two weeks, the researchers managed to get six male and six female unemployed graduates, aged between 24 and 40 years old. To safeguard the dignity of the participants and maintain anonymity on the day of data collection, the researchers opted for the pseudonyms, P1, P2, P3.....P12. For privacy and secrecy, the researchers have one office in the Psychology Building since it is peaceful and free of interruptions on weekends because there are no staff and student movements, unlike during the week. Tesch's method of thematic analysis was employed thoroughly for themes identification although the transcriptions of the collected data took a long time. This followed both researchers had relied on the semi-structured interview guide for consistency. As suggested by De Vos et al., (2011), during the focus group interview, one of researchers took notes and made observations while the respondents expressed themselves. Debriefing followed to ensure that there has not been any trigger of suppressed emotions since the subject was sensitive (Creswell, 2014).

5. TRUSTWORTHINESS

Guba and Lincoln (1985) established four trustworthiness principles: credibility, dependability, neutrality, and transferability. The researchers ensured that the respondents clarified their experiences through being probed (i.e., credibility) and asked them the same questions (neutrality). For dependability, the researcher followed Tesch's data analytical steps from the semi-structured interviews. With the help of audio-recording device, all the responses from the twelve participants were transcribed as they were. After being compiled into word document, they were transferred to NVivo 12 software data analysis software for thematic analysis.

6. RESULTS

6.1 Themes and Categories

The six themes with eleven categories were identified following Tesch's method that entailed coding of similar responses quoted in verbatim. The themes are major depression, impaired psychological well-being, poverty, discrimination, protective factors, and resilience.

Major depression

The participants highlighted that unemployment was aggravated by COVID 19 lockdown; thus, they experienced depression.

In 2020 I was diagnosed with depression and anxiety, because when COVID came and we were under lock down, I just knew I should forget about being employed. (P8)

Weak immune system

Consistent with literature (García-León et al., 2019), the participants agreed that stress related to being unemployed can take its toll on one's physiology regardless of gender and result in headaches and loss of weight.

Yes! I think unemployment has affected my body because I get sick easily nowadays and people say maybe its stress (P12)

For the past two years I suffer from constant migraines which the doctor said are stress related. He said I should try, and stress less but how can I when my situation has not changed. (P3)

Self-confidence

Self- confidence relates to one's belief about perseverance, self-awareness (emotionally and cognitively) and self-efficacy (Karatas & Oktem, 2022). However, for unemployed graduates in this study, self-doubt crept in when asked about how unemployment has impacted their psychological well-being. In their response, they highlighted to have distanced themselves from their employed friends.

“Yho! What can I say. Mentally it has affected my confidence and self-esteem in a very negative way. I struggle to believe in myself anymore because it's hard for me to even find any job. As a result, I have become lonely, I do not feel like going out with friends since I don't have money for entertainment.” (P3)

Suicidal ideation

The constant comparison that the unemployed make when meeting or thinking about their employed friends leaves them cognitively impaired in such a way that, they regard themselves as worthless. No wonder one male participant echoed as follows:

“I see my school friends ... they have jobs and are prospering in life. It was so difficult for me that I tried to commit suicide.” (P9)

Substance abuse

Unemployment of a graduate in the family could cause tension as they may be economically deficient in providing food. Thus, impaired psychological well-being is often reported and likelihood to resort to alcohol. The extract below is from the male participants who stays with uncle and his children.

Even children in the house are also complaining because the food doesn't last for long. So, this is the kind of things that made me to turn to drinking alcohol” (P2)

Impaired psychological well-being

The extracts could be described as the effects of long-unemployment duration.

Feelings of hopelessness

“Ey! I have been unemployed for about six years now; I have given up on being employed. I don't think I have the strength to carry on hoping. It is now too painful for me.” (P 8)

“I come from a very poor background; I had hoped to get employed after graduating so that I can change my family situation. I have given up on prayer because it's like God is not hearing my prayers”. (P 9)

Poverty

Child-support

Because unemployment and poverty are interwoven, a 39-year-old male participant expressed emotional pain when mentioning to be experiencing poverty that strikes his children.

“I sometimes just don’t want to face my children when they ask for something when I know I cannot afford.” (P 3). Nevertheless, a female participant mentioned to be meeting her child’s needs through transactional sex.

“Because I have a 10-month-old baby. So, it is very frustrating for me. Because I can't give him everything that he needs. So, I survive on demanding money for sex from the men I sleep with. After all I should pay for my flat” (P 6)

Criminal behaviour

Because of unemployment, male participants in particular, raised anti-social behaviour as form of coping.

“You know boredom leads you into so many things that you don’t want for yourself... Sometimes you just wake up in the middle of the night and think of ways to make quick money. Unemployment can lead to high level of crime, armed robbery, and drugs.” (P5)

Discrimination

Feelings of loneliness and social aloofness emerged strongly among the participants who felt that had they had money, they would be having romantic relationships and friends who do not segregate them when there are functions in their communities.

Loneliness

“As I have mentioned before, I basically do not have friends. I cannot even mention the girlfriend part, my relationship with my girlfriend has also been strained in a sense that I have somewhat failed to do certain things for her or even support her financially. Her friends and family are mocking her because of me, advising her to leave me as our future is very bleak.” (P 1)

Social aloofness

I feel ashamed to face my peers who I studied with because they are working. I even struggle to attend traditional functions in my location or even sharing my opinion when there are community discussions (P7)

Protective Factors

Participants who indicated to be attending church, living with their parents and siblings, reported courage and unconditional support for their fortitude. Thus, their responses reflect managing stressors associated with unemployment.

Church

It has affected me in a negative way, most of the time I feel depressed, and I have been going for counselling at church regarding this issue. I realised that if I do not seek help, I will be easily

drawn into alcohol and dagga as coping mechanisms. But I am not as energetic and confident as I used to be.” (P 8).

Family support

It is my mother who always buy me airtime and data, so that I continue to look for work. She never complains shame, I can say she is my rock. I know I will make her proud one day. (P10)

My brother tries shame I can never blame him. He has his own responsibilities but will always include me in his budget, I’m so grateful to him. (P7).

However, family support could be unconditional when the parents have had expectations from their children when sending them to the university. For instance, the assertion below illustrates that being unemployed and being pregnant leads to being discriminated and treated with contempt.

I have a child right, so whenever the child needs something, I’m told that they did not send me to school to get a child so I must make means for my child especially because they are still taking care of me. (P11)

Resilience

Towards the end of the focus group interview, participants had to share the extent of the support received from the significant others. Three participants demonstrated reliance when relating how life started to be meaningful.

Positive Coping

“The stress is too much, because you are faced with your situation everyday but playing football or going to practice allows me to cope. I just forget about everything when I am on the field.” (P1).

Christianity

“I am very spiritual, and I come from a Christian home and being Christian has helped me cope with being unemployed for a long time” whenever I feel overwhelmed, I pray and so that’s how I cope. (P9)

Entrepreneurship

“I started a small business at home that is keeping me busy. That why I am mostly at home ... clean the yard ... and clean the house. And when people come and buy at my house, they even suggested that they would open a Whatsapp group to recommend the people in the village to support me” (P 12)

“I do hair braiding and charge R50. Or people will send me to the shop to buy something and they will pay me then.” (P4)

7. DISCUSSION

This research adds to the plight faced by many black unemployed graduates in South Africa and globally. Psychologically, unemployment breeds feelings of hopelessness and helplessness, loneliness, and low drive to pursue future goals especially when there is no family support. For instance, one male participant ended up being divorced following being unable to provide for his

children while the other indicated that his girlfriend terminated their romantic relationship because of the pressure from the society. The findings above could be interpreted as follows: 1. marriages or sexual relationships tend to discontinue when economic expectations are inadequate as in Turkey, González-Val and Marcén (2018) found that poverty heightens impaired psychological well-being. 2. Unemployed men irrespective of their educational attainment, in black societies, are less likely to be valued. This assertion is supported by Nzabonana et al., (2016) and Mutanda and Odimegwu (2019) who found that in Uganda and South Africa, respectively, divorce or separation, is associated with feelings of emotional emptiness and poor quality of life- satisfaction.

The three theories by Festinger, Hobfoll and Jahoda underpinning this study confirm that when individuals lack resources tend to make decisions not to be in groups to avoid being hurt or devalued by others owing to poverty. In other words, the comparisons with others, created internalized stigma, hence some participants in this study mentioned to be distant or nearly committed suicide. It could be for such reasons that the participants reported to have suffered from depression and migraine. A migraine is a tension-type headache marked by dizziness, blurred vision and could lead to stroke, dementia, and disability. It is caused by excessive worries or thinking (Steiner et al., 2015). In Syria, migraine was found to be 60.1% among unemployed and may account to aggravate their health if they keep on using substances (Alkarash et al., 2019).

Risk sexual behaviour could be regarded as survival strategies for unemployed graduates lacking protective factors such as caring parents, relatives, and friends. Two females in this study were not shy to reveal that they ask for money from their partners in exchange for sexual intercourse. Transactional sex entails gifts and money to maintain lavish lifestyles and may be motivated by poverty, peer pressure, influence from social media, and it is prevalent in sub-Saharan countries due to lack of economic expansion or opportunities (Hoho & Kheswa, 2017; UNAIDS, 2018). According to the report released by World Health Organization (WHO, 2015), women who trade their bodies for sex find themselves trapped in drugs as some of their partners are older men who rob them of their autonomy to negotiate safe sex.

It is then right to conclude that such women could encounter myriad consequences such as gender-based violence, unwanted pregnancy, sexually transmitted infections and postpartum depression, which further exacerbate their psychological disposition. However, Mamun et al (2020) agree that good support system buffer against criminal activities because they provide much needed support such food, pocket money and motivation without any discrimination. Thus, participants highlighted that their family members and friends support them with money to buy airtime to access internet to keep on searching for employment and prayers in the face of adversity.

Finally, they became distinguishable as resilient when mentioning sport, seeking counselling from church and small- businesses which could grow into salons or established shops because of social networking. Theron et al., (2021) suggests that resilience is a multi-faceted system which is undergirded by biological, psychological, environmental, and social systems which promote well-being, health, and psychological strength. To this end interconnectedness and societal support systems are understood to bolster coping and wellbeing. Some of the respondents noted that having

strong families and supportive social structures has provided them with a safety net and a springboard they bounce from when feeling depressed.

8. CONCLUSION

Based on the content provided, it cannot be denied that unemployment among graduates increases the statics of suicides, drug-dependence, depression, stigma, emotional emptiness and impaired psychological well-being. An alarming number of women are susceptible to unwanted pregnancy and HIV/AIDS owing to their vulnerabilities and pressure to cover their economic hardships while their male counterparts find it difficult to engage in social activities with members of the community and employed graduates.

9. RECOMMENDATIONS

To combat the scourging unemployment rates especially among black graduates in the Eastern Cape, South Africa, there should be an intervention of the government and private sectors to provide psychological services, entrepreneurial skills, internships, and job-creations.

REFERENCES

- Adeniyi, E. K., Eneji, R. I., & Okpa, J. T. (2019). Unemployment and drug trafficking among suspects in custody of the national drug law enforcement agency, Cross River State command, Nigeria. *European Scientific Journal*, 15(19), 191-202.
- Aflakseir, A., & Mahdiyar, M. (2016). The role of religious coping strategies in predicting depression among a sample of women with fertility problems in Shiraz. *Journal of reproduction & infertility*, 17(2), 117- 128.
- Alkarrash, M. S., Shashaa, M. N., Kitaz, M. N., Rhayim, R., Alhasan, M. M., Alassadi, M., ... & Farfouti, M. T. (2021). Migraine and tension-type headache among undergraduate medical, dental and pharmaceutical students at University of Aleppo: a cross-sectional study. *BMJ Neurology Open*, 3(2),1-10.
- Baldry K 2016. Graduate unemployment in South Africa: social inequality reproduced. *Journal of Education and work*, 29(7):788-812.
- Barton K, Redshaw M, Quigley MA, Carson C. (2017). Unplanned pregnancy and subsequent psychological distress in partnered women: a cross-sectional study of the role of relationship quality and wider social support. *BMC Pregnancy Childbirth*, 17(1):1–9
- Bronfenbrenner, U. (1994). *Ecological models of human development*. In T. Husen & T. N. Postlethwaite (Eds.), *International encyclopedia of education* (2nd ed), pp. 1643–1647). Oxford, UK: Pergamon Press and Elsevier Science.
- Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage.
- Chinyamurindi, W. T., & Harry, T. (2020). Illustrating school-to-work transition through drawings: An exploratory study with a sample of South African students. *SA Journal of Human Resource Management*, 18(1), 1-10.
- Creswell, J.W. & Creswell, J.D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. London: Sage publications

-
- Croezen, S., Picavet, H. S. J., Haveman-Nies, A., Verschuren, W. M., de Groot, L. C., & van't Veer, P. (2012). Do positive or negative experiences of social support relate to current and future health? Results from the Doetinchem Cohort Study. *BMC Public Health*, 12(1), 1 -13.
- De Vos, A.S., Strydom, H., Fouche, C.B. & Delpont, C.S.L. (2011). *Research at grassroots for the social sciences and human service professionals*. (4th ed.). Pretoria: Van Schaik Publishers
- Falakahla, L. (2018). The causality between youth unemployment, education attainment and labour force participation: Evidence from South Africa. Munich Personal RePec Archive. Retrieved from <https://mpra.ub.uni-muenchen.de/id/eprint/92562>
- Festinger, L. (1954). A theory of social comparison processes. *Human relations*, 7(2), 117-140.
- González-Val, R., & Marcén, M. (2018). Unemployment, marriage and divorce. *Applied Economics*, 50, 1495–1508
- Gross, C., Gurr, T., Jungbauer-Gans, M., & Lang, S. (2020). Prejudices against the unemployed—empirical evidence from Germany. *Journal for Labour Market Research*, 54, 1-13.
- Gurr, T., & Jungbauer-Gans, M. (2017): Eine Untersuchung zu Erfahrungen Betroffener mit dem Stigma Arbeitslosigkeit. *SozProb*, 28(1), 25–50,
- Hakulinen, C., Musliner, K. L., & Agerbo, E. (2019). Bipolar disorder and depression in early adulthood and long-term employment, income, and educational attainment: A nationwide cohort study of 2, 390, 127 individuals. *Depression and anxiety*, 36(11), 1080-1088.
- Helbling, L. A., Sacchi, S., & Imdorf, C. (2019). Comparing long-term scarring effects of unemployment across countries: the impact of graduating during an economic downturn. In *Negotiating Early Job Insecurity*. Edward Elgar Publishing.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513-524.
- Hobfoll, S. E. (2010). Conservation of resource caravans and engaged settings. *Journal of Occupational and Organizational Psychology*, 84, 116-122.
- Hoho, V. N & Kheswa, J.G. (2017). The psychosocial well-being of university students living with HIV/AIDS. *Journal of Human Ecology*, 59(2-3), 108-116
- International Labour Organization (2019). The gender gap in employment: what's holding women back? Retrieved February 18, 2020, from: <https://www.ilo.org/infostories/en-GB/Stories/Employment/barriers-womenbridging-gap>
- Jahoda, M. (1981). Work, employment, and unemployment: Values, theories, and approaches in social research. *American psychologist*, 36(2), 184-195.
- Karatas, I., & Oktem, T. (2022). Investigation of the Relationships between SelfConfidence Levels and Job Finding Anxiety of Faculty of Sports Sciences Students. *Education Quarterly Reviews*, 5(1), 291-302.
- Li, Z. S., & Hasson, F. (2020). Resilience, stress, and psychological well-being in nursing students: A systematic review. *Nurse education today*, 90,
-

-
- Lim AY, Lee S-H, Jeon Y, Yoo R, Jung H-Y. (2018). Job-seeking stress, mental health problems, and the role of perceived social support in University Graduates in Korea. *Journal Korean of Medical Sciences*, 33(19): e149-e160.
- Magagula, B. (2017). An exploration into the social support systems of unemployed graduates (Masters' dissertation). University of South Africa: Pretoria
- Maka, L., Van Niekerk, J. A., DeBruyn, M., & Pakela-Jezile, Y. P. (2021). Perceptions of agricultural postgraduate students on unemployment in South Africa. *International Journal of Social Sciences and Humanity Studies*, 13(1), 55-78.
- Mamun, M. A., Akter, S., Hossain, I., Faisal, M. T. H., Rahman, M. A., Arefin, A., ... & Griffiths, M. D. (2020). Financial threat, hardship and distress predict depression, anxiety, and stress among the unemployed youths: a Bangladeshi multi-city study. *Journal of Affective Disorders*, 276, 1149-1158.
- Mashabela, E., & Kheswa, J.G. (2020). Exploring the impact of intimate partner violence amongst university female students living in cohabitation. *The Independent Journal of Teaching and Learning*, 15 (1), 35-48
- Mncayi, P., & Shuping, K. (2021). Factors affecting labour absorption in South Africa. *Journal of Economic and Financial Sciences*, 14(1), 10.
- Mokona, H., Yohannes, K., & Ayano, G. (2020). Youth unemployment and mental health: prevalence and associated factors of depression among unemployed young adults in Gedeo zone, Southern Ethiopia. *International journal of mental health systems*, 14(1), 1-11.
- Mutanda, N., & Odimegwu, C. O. (2019). Solitary living in South Africa: what is driving the pattern and change? *Journal of Population Research*, 36(2), 137-158.
- Nolen-Hoeksema, S., & Girgus, J. S. (2014). *Explanatory style and achievement, depression, and gender differences in childhood and early adolescence*. In *Explanatory style* (pp. 67-80). Routledge.
- Nonyana, J. Z., & Njuho, P. M. (2018). Modelling the length of time spent in an unemployment state in South Africa. *South African Journal of Science*, 114(11-12), 1-7.
- Nzabona, A., Ntozi, J., & Rutaremwa, G. (2016). Loneliness among older persons in Uganda: Examining social, economic, and demographic risk factors. *Ageing and Society*, 36(4), 860–888.
- Musitha, M., & Mafukata, M. (2018). Crisis of decolonising education: Curriculum implementation in Limpopo Province of South Africa. *Africa's Public Service Delivery and Performance Review*, 6(1), 1–8
- Putter, I. (2021). Similar or different? Profiling the unemployed from selected communities in South Africa. North-West University (South Africa), Retrieved from <http://hdl.handle.net/10394/37047>
- Sacchi S, Kriesi I and Buchmann M (2016) Occupational mobility chains and the role of job opportunities for upward, lateral, and downward mobility in Switzerland. *Research in Social Stratification and Mobility*, 44, 10–21.
-

Savickas, M. L. (2013). Career construction theory and practice. In R. W. Lent & S. D. Brown (Eds.), *Career development and counselling: Putting theory and research to work* (2nd ed., pp. 147–183). Hoboken: Wiley.

Steiner, T.J., Birbeck, G.L., Jensen, R.H., et al. (2015). Headache disorders are third cause of disability worldwide. *Journal of Headache Pain*, 16:58- 69.

United Nations (2015), *World Population Ageing*, Report ST/ESA/SER.A/390, United Nations,

Department of Economic and Social Affairs Population Division”, New York, available at:

https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf (Accessed 3 July 2021)

United Nations Joint Programme on HIV/AIDS (UNAIDS). 2018. *Transactional Sex and HIV Risk: From Analysis to Action*. Geneva: UNAIDS. Accessed 19 October 2020. https://www.unaids.org/sites/default/files/media_asset/transactional-sex-and-hiv-risk_en.pdf

Voßemer, J., Gebel, M., Täht, K., et al. (2018). The Effects of Unemployment and Insecure Jobs on Well-Being and Health: The Moderating Role of Labor Market Policies. *Social Indicators Research*, 138(3), 1229-1257.

Wissing, M. P., & Van Eeden, C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology*, 32(1), 32-44.

World Health Organisation (WHO). 2015. *Sexual Health, Human Rights and the Law*. Geneva: WHO.

SSIRC 2023-186**EXPLORING FORCED INNOVATION AND CONTINUOUS IMPROVEMENT IN THE HOSPITALITY INDUSTRY DURING COVID-19****P. Chihwai**

Vaal University of Technology, South Africa

K. Dube

Vaal University of Technology, South Africa

ABSTRACT

COVID-19 induced innovation and continuous improvements in the tourism sector, as well as to continued operations during the crisis, and the same improvements are still being applied today. This paper aims to establish the innovations and continuous improvements that were introduced during COVID-19. The study also seeks to establish the relevance of such innovations and continuous improvement eventually leading to the post-COVID-19 era to ensure industry sustainability. A critical document review will be applied and case studies in the South African context. Google Scholar, Web of Science, and Research Gate peer-reviewed articles were utilized using keywords such as: hospitality innovation, continuous improvements, hotels, and tourism innovation. Integrated annual reports from the hospitality industry were utilized. The findings of the study suggest that the innovations during COVID-19 included smart and digital technologies in the form of different technologically led communication platforms, and improved health, sanitation, and hygiene practices. Further findings suggest there was an increased need for the application of digital technology Cyber-Physical Systems (CPS), the Internet of Things (IoT), Augmented Reality, Virtual Reality (VR), Artificial Intelligence (AI), Robotics, and Big Data. These crisis-induced innovations have the potential to revive and sustain the hospitality industry in the long term.

KEYWORDS: Continuous improvement, COVID-19, Innovation, digital technology**1. INTRODUCTION**

The advent of the COVID-19 pandemic forced the tourism and hospitality industry to innovate new ways of doing business and create continuous improvements in all spheres of hotel operations, globally. The hospitality industry was greatly affected by COVID-19 in several ways, such as deaths affecting employees and tourists (Sucheran, 2021), zero mobility (Rogerson & Rogerson., 2021), and restricted human interaction (Dube, 2020). These all-affected hotel occupation, viability, and sustainability (Chihwai et al., 2023). The COVID-19 pandemic also affected employees' jobs (Gossling, 2020) and the closure of some hotels (Rahma & Arvianti 2020).

The burden on the hospitality industry globally was so overwhelming with the result that hotels and other alternate hospitality accommodation players, such as caravan parks and guest houses, had to find ways of coping with the deadly disease. Though difficult, under the tough conditions, businesses had to find recovery and resilience measures to keep their businesses afloat worldwide. In Europe, Spain experimented with ways of dealing with such pandemic negative effects (Alonso-Almeida 2020), such as hygiene and sanitization which reduced the impact whilst, in Asia, China,

the epicenter of the pandemic also tried using cleanliness, social distancing, and hygiene to avert the dangerously spreading COVID-19 disease (Guo et al., 2021).

In Africa, the impact of the pandemic was the same with South Africa leading with the highest number of COVID-19 cases recorded but still trying to find ways of recovering from the pandemic. They used to force innovative means and continuous improvements to remain relevant to the plight of the disease. The huge numbers of infected people with COVID-19 led to South Africa being listed on the banned list of its residents wishing to travel to Europe and the United States of America. This forced South Africa to put measures to thwart the pandemic. More specifically, South Africa's tourism accommodation sector, in line with government initiatives, practiced all health and safety protocols as expected. Furthermore to compliance with government and health instructions, the hospitality industry had to find innovative ways to improve their business and remain relevant, and viable and sustain the businesses. They used measures such as invention and adoption of fourth and fifth industrial revolution innovations and training and development.

The significance of this paper is that previous literature has not addressed the forced innovation during COVID-19 in the hospitality industry. The assertion that forced innovation has not been fully explored is especially true in the hospitality industry. Literature that tried pursuing the area dwelt more on digitization (Pillai et al., 2021), hygiene, and cleanliness (Shin & Kang, 2020), and no study took a wholesome analysis of all the forced innovations and continuous improvements that were undertaken by the hospitality industry in any one study. Previous literature did not address specifically Sun International's group of hotels as a case study to ensure all the necessary innovations and continuous improvements are covered in a test case. This was especially so since Sun International is such a big player in the South African hospitality industry.

Following the above shortcomings of the previous literature, this study aims to address innovation and continuous improvements in the context of the hospitality industry in South Africa, specifically Sun International's group of hotels because it is one of the leading hospitality players. It is also important to note that this study unveils that innovation and continuous improvements were not under normal conditions in the normal hospitality training and development, research, and development departmental plans. The above processes were carried out under rushed and coerced conditions with heavy government monitoring. The crisis conditions under which the innovations and continuous improvements' angle of approach makes the study peculiar and is a first of its kind in contributing a body of knowledge to researchers and future researchers. At the same time this study informs the hoteliers, managers, and marketers of other marketing initiatives on what can be utilized also in times of crisis.

The paper outline will be as follows: the first section of the study deals with the introduction of the study, the aim of the study, and the significance of the study. The second section deals with a literature review of innovation and innovation improvement articles. The third section deals with methodology, in which a qualitative approach will be applied, whilst the fourth section deals with findings and discussions, and the last section deals with conclusions and recommendations.

2. LITERATURE REVIEW

2.1 Innovation

Innovation is a complex process with many dimensions and factors which authors do not agree on. According to Khan (2018), innovation has three dimensions, namely: innovation as an output, innovation as a process, and innovation as a mindset. Elucidating on the three concepts, Khan (2018) isolates the output dimension as one that includes the following innovations: marketing, product, process, business model, supply chain, business model, and organizational improvements. Innovation as a process deals with how the process organization ultimately achieves the output, such as the new product development process and innovation process. Innovation as a mindset focuses on individual thinking capacity and creativity coupled with organizational support and resources that create a conducive environment for innovation to take place.

Several authors gave their versions of innovation. Schumpeter (1935), regarded innovation as financial gain derived from a technology-related adjustment fusing with a prevailing progressive productive workforce, combating a problematic corporate issue. Another different view is that innovation is a combination of management, economics, technology, and science processes emanating from idea generation to the commercialization stage whether it be a physical product, exchanges, or even consumption (Twiss 1989). Digressing from the previous perspective is Afuah (1998), who asserts that new knowledge is what defines innovation which will be fused into services, products, and processes and further categorizes and characterizes it into administrative or organizational attributes, market, and technological aspects. The market classification comprises product, place, promotion, and price modifications, whilst the administrative classification was further refined into the system, people, structure, and strategy (Afuah, 1998).

2.2 Digitization

E-tourism, or smart tourism, is a new trend in tourism being adopted by the hospitality industry but still with limited applications and usage motivated by the desire to thwart competition, hotel structure improvements, and profitability agendas (Moronne et al., 2021). Furthermore, Moronne et al., (2021) concede that digitization was like a forced innovation due to the COVID-19 pandemic situation. Similarly, restaurant managers' attitudes towards technology changed positively during the COVID-19 pandemic era than in the year 2017 when they did not see the need to adopt the technology seriously. Since the advent of the COVID-19 pandemic, almost all restaurateurs have applied technology in their day-to-day operations (Polese et al., 2022)

3. MATERIALS AND METHODS

The study employs a qualitative research approach by utilizing document review analysis through secondary data on themes related to innovation and continuous improvement, COVID-19, from Google Scholar, Web of Science, Research Gate, Integrated Annual reports, and related peer-reviewed journal articles. Articles were selected using inclusion and exclusion. Articles were included in terms of relevance and excluded those which were not relevant. The articles' relevance was those with keywords related to the study such as COVID-19, innovation, and continuous improvement from the year 2019 onwards. A total of 300 articles were found. English was used as a factor to exclude other articles leaving 205 articles only. A case study was employed of Sun International's group of hotels because it is a critical and major player in the South African

hospitality industry. Major contributors to the study documents consulted were listed in Table 1. Full details are listed in the referencing section.

3.1 VALIDITY AND RELIABILITY

Eisner (1991) formulated dimensions that complement the credibility of qualitative research such as structural corroboration, consensual validation, and referential adequacy as enough evidence. Furthermore, in structural corroboration, the researcher uses several sources of data to support or deny the interpretation. The quality of the huge data collected daily by relevant organizations and or individuals such as government institutions and private companies, research organizations, non-governmental organisations in recent years should be of importance to any system or institution, especially the academic environment (Olabode et al.,2019).

Table 1. Major sources consulted.

| Year | Source |
|------|--|
| 2020 | Sun International Integrated Annual Report |
| 2021 | Sun International Integrated Annual Report |
| 2020 | Pillai et al. |
| 2020 | Rogerson & Rogerson |
| 2023 | Chihwai et al. |
| 2021 | Dube, K. |
| 2020 | Nhamo et al. |
| 2019 | Abrahams, D. |
| 2020 | Osei et al. |
| 2019 | Francis et al. |
| 2021 | Guo et al. |
| 2021 | Quintana et al. |
| 2021 | Rahma et al. |
| 2023 | Srivastava et al. |
| 2021 | Tu et al. |
| 2019 | Yeswa & Ombui |

Source: Own source

4. FINDINGS AND DISCUSSIONS

4.1. Senior management meetings

The study finds that, due to COVID-19, there was a need to constantly meet and monitor the situation at every level of the business hierarchy, starting from the higher echelon. Considering the aforesaid, Sun International Hotel Group introduced a monthly chairman's meeting comprising the chairman, the chief executive, and two board directors. The study finding implies that monthly meetings afforded teamwork and bonding between and among senior executives working closely on achieving strategic and non-strategic key objectives that need urgent attention. This constant senior executive meeting provides a platform for quick and easy decisions to be made and acted upon. There were also improved quarterly meetings between executive leadership and senior management. The finding resonates with Hu, et al. (2021) in a similar study that found that hotel managers and supervisors conducted daily meetings during COVID-19 to promote employees' and

patrons' safety. During training and staff luncheons, such messages were continuously repeated. They found that if messages are constantly supplied to a mass audience, the messages are listened to and acted upon without question. They found that Sun International's management strategic objectives would be achieved regarding people and culture, customer centricity, and environmental and social governance. In line with the government's initiative against gender-based violence and femicide, Sun International meetings hatched initiatives and campaigns throughout the year supporting such noble societal causes.

4.2. Omni channel offering

The study found that more initiatives and benefits were put in place for Sun International's loyal customers online. Loyal customers were allowed to manage their loyalty journey at their convenience using the Sun International application from their phones or laptops. Reservations and payments were also improved through the new online booking engine necessitated by the desire to fulfill social distancing requirements during COVID-19. The findings resonate with similar studies which found loyalty programs in different forms to be beneficial to both the enterprise and the customers. These forms comprise economic, social, and structural ones (Chen & Chiu, 2009; Chiu, Hsieh, Li & Lee, 2005). The findings also augment Casado et al. (2019) who purport that hotel groups and big hotel chains are employing social networks for relationship marketing, whilst most of the hospitality industry sidelines such opportunities. The managerial and practical implications of the loyalty programmes in this study are that they create long-term to everlasting relationships with various stakeholders and achieve desired ends. Social benefits are usually more difficult to execute, yet equally can be so difficult to copycat or repeat. This makes the initiatives unique to the company initiating the loyalty programmes. The difficulty in replicating social benefits to loyal customers also accounts for a company's unique selling proposition. Social benefits enable relationships to be developed at the forehead-to-forehead, shoulder-to-shoulder, and knee-to-knee personal relationship levels.

4.3. Collaboration

The study found that there was an improved service for loyal customers through collaboration with Global Hotels Alliance to better recognize and reward customers and guests during the COVID-19 era. The relationship was enhanced through technology usage like artificial intelligence. Like this study finding, partnership collaboration in the United Kingdom also played a significant role in bringing sanity to the hospitality industry (Canhoto & Wei, 2021). Collaborating with relevant stakeholders generated more hotel revenue, brought operational improvements, and even the development of new business partnerships, through collaborative strategies like recognizing problems, rationalizing improvements, and refashioning other means of doing things (Canhoto & Wei, 2021)

4.4 Management commitment

The study found that management sacrificed salary cuts to save the company from financial loss and ensure business continuity. Whether this was deliberate or coerced, the glaring results show that the company continued to exist and improved their outlook when one looks at their balance sheet. Managing debt was one such bold move to save the company from collapsing whilst management ensured the success of the R1.2 billion rights offer and enhanced operational

efficiencies for the whole hotel group. The lockdown accorded the hotel group an opportunity to cut costs, saving up to six hundred and fifty million rands. Similarly, (Demingm, 1982; Juran, 1988) pointed out that higher quality implies lower costs and increased productivity, which in turn gives the firm a greater market share and enhanced competitiveness. Quality management process stages for quality improvement are planning, organization, and control. Cost control or reduction measures also contribute to a company achieving a higher market share (Crosby, 1979; Juran, 1988). Supporting similar management commitment as sustainable practices by management in hotels, Srivastana et al. (2023) made several findings. They found that lack of resources, policies, and regulations, an overburdened curriculum, and awareness may negatively affect management efforts whilst encouraging sustainability practices through systematic programming of management education. This enhances hotels' sustainability also, which concurs with sentiments echoed by Tourism Education Future Institute.

4.5. Online gaming strategy

The study found that there was an expanding SunBet's product offering and that replaced the Bally gaming system with the industry leading Playtech Neon system. The alternative gaming strategy combined with the appointment of the head of this online and gaming strategy with experience in both the United States of America and the United Kingdom, Nigel Payne, gave Sun International greater impetus for performance in the industry during the COVID-19 period. The improvement to new gaming alternatives was a fulfillment of the growth strategy in the hotel gaming strategy. The improved gaming has offerings such as tables, slots, alternate gaming such as LPMs, and online sports betting. The increased fifteen gaming licenses contributes a significant 1.2 billion tax contribution. This made Sun International a pioneer and leading gaming player in that niche market. Gaming has been a cash cow for the hotel group and a critical part of the business. To ensure relevance and continued operations, compliance with the license requirements has been an ethical consideration of business periodically and reviewing the gaming conditions proved essential for the hotel group. Casino gaming continued to operate depending on the level of restriction, but curfew restrictions greatly affected the early exit of patrons leading to reduced revenue.

4.6. Skills gap identification

The study found that COVID-19 stringent conditions brought about the need to identify new talent to suit the new conditions of social distancing and hard lockdown with little or no movement in some instances. Critical skills gaps identified by Sun International include general Information Technology and digital skills, including online sales and marketing because the new normal business environment demands such relevant skills. Efforts to recruit new skilled manpower were put in and are still taking place to heighten the hotels' performance. Similarly, succession plans are in place and ensure the critical skills possessed by those leaving are retained in the organization. During similar studies addressing skills gaps in hotels, Srivastava et al., (2023) suggested that the skills-knowledge gap between industry and the academic world must be closed at academic institutions. Similarly, Francis et al. (2019) found that the training institution provided supply-driven training instead of demand-driven, thereby creating a shortage of adequately trained and skilled staff suitable for the tourism job market. The study recommended the fusion of industry

practitioners and academic tutors, and enforcement of the National Qualification Framework to ensure matching between the two fields of curriculum contents in training institutions and the workplace.

4.7. Skills retention

The study found that skills retention was necessary to avoid skilled and qualified personnel from emigrating overseas and contributing to the hotels' quest for overall customer satisfaction of memorable experiences. The skills retention strategy was achieved through the provision of the best resources and rewards and compensation for those in such influential positions. The finding in this study relates to a similar study where talent management was found to be the most important factor for the hotels' success in the Jharkhand region in India and claimed the same as applicable to every hotel's success in each country (Sharma & Hans, 2022). In a similar study in Kenya, the hospitality industry rewards dimension was found as the most contributing factor to staff retention (Yeswa & Ombui, 2019)

4.8. Lobbying

The study found that lobbying played a significant role in coercing the government to open their businesses earlier, especially in lockdown stage 3 rather than in lockdown stage 1. Lobbying was necessitated by the huge loss, especially in the hard lockdown period of level 5. The hotel group and other tourism players had the immediate desire to return to business due to less hotel occupancy and fewer nights spent by tourists in hotels, as was supported by a similar study (Chihwai et al., 2023). Gaming boards were equally being lobbied by Sun International to allow them to open early for business to flourish once again.

4.9. Constant and timeous communication between management and employees

The study found that there was now a directed and more frequent messaging between management and employees than ever before to keep both employees and management updated due to the ever-changing scenarios daily caused by the COVID-19 situation in the country. The bonding between management and employees creates a fertile ground for maximum productivity. Engagement channels utilized included Sun Talk, social media, email notifications, face-to-face meetings, and Podcasts. The situation continued during the whole duration of the COVID-19 pandemic and ensured that more, and a better understanding prevailed between the two groups than ever before, thus prompting the desire to maintain and enhance such symbiotic relationships to last forever.

4.10. Retrenchments

The study found that retrenchments were implemented in Sun International's group of hotels as a positive move to ensure business and operational requirements continuity. Retrenchments, whilst negative on the employee side, were a necessary evil requirement to ensure that once the business recovered, those retrenched would be the first to be employed whilst the employees might have enjoyed the small benefits associated with the retrenchments. The idea was "to kill to save" and protect the enterprise. Some operations stopped and equally affected the concerned employees. Redundant staff is an expense to the organization and justifiably was the reason for retrenching staff. Corroborating similar findings in Asia continent, about 64.3 million employees lost their jobs in the hotel industry (Agustina & Yosintha, 2021) The hospitality industry relies mostly on

human interaction and mobility, and the hard lockdown could not allow for such, including employees of tourism and hospitality which resulted in negative effects by laying off employees because no tourists or patrons were injecting money into the business (Alonso et al., 2020; ILO (International Labour Organization), 2021). The World Travel and Tourism Council has estimated that nearly fifty million jobs globally were lost by COVID-19. COVID-19-induced layoff became a serious socio-economic problem that negatively affects employee well-being and organizational survival (Tu et al., 2021).

4.11. Improved wellness programmes

The study found that wellness programmes during the difficult retrenchment days were enhanced to cater to the huge employee suffrage. The COVID-19 pandemic brought higher anxiety and stress levels to both management and employees because it was a matter of life and death which necessitated the desire to improve wellness programmes within the group also. COVID-19-positive employees needed support from the management and company to gain hope. The retrenched, or those facing retrenchment, needed more support to be able to accept the situation and start a new life outside the normal employment. Furtherance to the wellness support, one million six hundred rands were spent on employees' family education support to showcase the company's commitment to the welfare of their employees and families. Through the One Sun Wellness programme for employees and their families, it is evident that there was much-needed support during the COVID-19 period. In similar studies, Tu et al. (2021) found that COVID-19 - layoff increased employees' COVID-19 stress, (which they code-named COV-layoff and COV-stress). This subsequently reduced performance for those that remained in the workplace and these findings also augmented the "survivor syndrome," where survivors experience lower well-being and lower performance (De Vries & Balazs, 1997; Kivimaki et al., 2003; Parker et al., 1997).

4.12. Closure of some strategic business units

The study found that Sun International closed some strategic business units to remain viable and sustain the business during COVID-19 as an innovative and continuous improvement strategy. The closure of Naledi Sun and The Carousel bear testimony to the closure of some business entities to achieve profitability and operational requirements in the Sun International hotel group. The remaining hotels were those that were more viable to sustain the hotel operations under the circumstances. Similarly, Tsogo Sun in South Africa announced the closure of thirty-six properties due to COVID-19 and the operational requirements (Rogerson & Rogerson, 2020), whilst some hotels were used as quarantine sites, such as Raddison Blu Hotel. Related to the findings in this study, Rahma and Arvisanti (2020), found that hotels in Indonesia and China were forced to shut down whilst some partially closed some business units' operations to reduce the spread of the virus whilst several thousands of employees were laid off due to non-viability of the hotels. The study finding also supports Quintana et al. (2021) who found that there were forced closures of hotels in Spain during a hard lockdown period to avoid the spread of the pandemic (compliance), and for reorganization purposes.

4.13. Reopening of strategic business units

The study found that reopening some closed business units was a positive strategy for viability and sustainability within the hotel group. Sun City, situated in Northwest Province in South Africa,

reopened trading in September 2020. The opening of this strategic business unit was necessitated when the lockdown restrictions eased in South Africa, allowing interprovincial movement. Similarly, the Maslow Sandton business unit also opened its doors to the public in October 2020, allowing business to take place. The Table Bay hotels' strategic business units also reopened to the public in November 2020, injecting more cash into the business, with employees getting their jobs back and customers enjoying their memorable moments within their destinations of choice. Similar findings on hotels reopening and businesses starting to boom, Guo et al. (2021) observed that, in China, some hotels recovered faster than others due to the following reasons: hotels with better brand image recovered faster than others, hotels that had better amenities and services and those that had fewer years' operating were in a more competitive position than others. Further to the, Guo et al. (2021) purport that hotels in tourism-oriented cities recovered faster than those in commerce-oriented ones, whilst safety and cleanliness played a pivotal role in decision-making by customers.

4.14. Transformation

The study found that despite the COVID-19 pandemic prevalence, the hotel group continued to implement employment equity as required by the government of South Africa. The slow transformation was taking place within the group to meet national requirements and improve performance. Diversity is being promoted within the group and a diversity policy is being implemented. Gender equity has always been a concern in both government and private structures, so equality prevails. Some women were promoted, and some black people were elevated into the higher echelon, including the chairman of the hotel group, to showcase adherence to equity plan and diversity initiatives. Similarly, Abrahams (2019) questions whether the transformation process is truly being fulfilled in achieving the desired organization's positive performance, or if it is a government imperative to comply with specific references to the tourism industry through the National Tourism Sector Strategy (NTSS). The NTSS gives direction to the tourism sector and places transformation at the centre of the changes required to grow the sector. Real developmental change is what is required and not just "ticking the box" of compliance.

4.15. Training and development

The study found that, despite the COVID-19 pandemic's disruption of business operations, training and development continued to flourish. The prevalence of the COVID-19 disease gave even more relevance to the training and development department to deal with the new normal conditions. The training took place from different dimensions, such as health and hygiene, sanitization, safety protocols, vaccination awareness campaigns, service excellence, new technology and applications' usage, digitization, social distancing awareness, customer care, quality service, and continuous improvement. Corroborating the study findings, (Abrahams, 2019) hints that innovation and training are paramount prerequisites for the future growth of the hospitality and tourism sector taking into cognizance new technology and industry disruptors such as Airbnb (Department of Tourism, 2017). Supporting training and development in the hospitality industry, (Swart & Tracey, 2019) support such initiatives in this sector, whilst further interrogation is needed to elucidate the different frame dimensions in the training and development. When properly integrated and fused, context-specific, complex, and culturally customized resources and

tools, real up skilling and individual workplace improvement will be recognized, and the corporate human resource strategy will be realized. To this end, human capital will be regarded as the greatest asset of an enterprise.

4.16. Selected application of technology across all activities

The study found that the application of technology was not across all activities. Technology was concentrated on certain activities and not on others. For example, the interaction between management and employees on various aspects with different technological applications is good, whilst there is average usage of technology with potential customers and there is more interaction with technology with loyal customers. The usage of robotics is still zero to minimal in-service delivery among other activities within the Sun International group of hotels. This supports the study finding of technology usage by different companies, including hospitality (Osei et al., 2020; Nicola et al., 2020). Ivanov et al. (2020) acknowledge the use of technological applications during COVID -19 to avert the sporadic disease, and such technology has been used to combat the spread of the coronavirus globally. Technology was also used as a part of the recovery methods by the hospitality industry and the trend on technological dependence may continue with the possibility of technology being a catalyst and resilience agent in the industry (Gretzel et al., 2020). In contrast to the fourth industrial revolution which focuses on technology replacing human beings at workplaces, the applicability of the fifth industrial revolution integrates both machines and humankind at workplaces. The hospitality industry is set to achieve high performance through the fusion of high-speed technology utilization with employees' skills, cognitive agility, and human creativity (Pillai et al., 2020).

There is no consensus among scholars, however, on what dimensions constitute the fourth industrial revolution. Scholars have assessed technological applications in the hospitality industry from different angles. Some have concentrated on the advantages of using technology and artificial intelligence, usage of robots, and automated service provision (Pillai et al., 2020; Osei et al., 2020; Alexis, 2017; Ivanov, Webster & Berezina, 2017; Kuo, Chen & Tseng, 2017), whilst the application of Big Data in this industry was advanced mostly by other scholars and how best Big Data may be utilized (Osei et al.,2020; Li, Wang & Li, 2018; Miah, Vu, Gammack & McGrath, 2017).

5. CONCLUSION

The COVID-19 pandemic brought enormous suffering to the global economy and tourism was one of the worst affected due to its massive dependence on the mobility and sociability of humanity, which had been banned at the time. The hospitality industry was greatly affected negatively because there were no bookings, international traveling was stopped, and that meant no income for the hospitality industry. There were forced innovations and continuous improvement interventions made that were meant to thwart the pandemic, such as vaccination, health, and safety protocols to comply with government and health expectations. Specifically, hotels had their interventions to remain viable and sustain the business to deal with the new normal situation. These new normal included retrenchments, closure of some strategic business units, closure of some operations, training, and development, transformation, reopening of strategic business units, improved wellness awareness programmes, improved communication programmes between

management and employees, digitization, lobbying, senior management meetings, and omni channel offerings. The implication of the study is that crazy crisis moments in business also call for crazy solutions that can be offered timeously. Further implications of the study are that skilled, educated, experienced directors and senior management support will always steer the hospitality industry in the right direction, and they know when to implement which strategies and under what conditions and avoid complications or disruptions in the overall continuity, the profitability, and the sustainability of the business. Furthermore, tailor-made digitization and technology can be applied in any of the strategies that may be applied by the hospitality industry, despite the problem or solutions, such as: sanitization, hygiene, vaccination, communication, retrenchment, training, and development, omni channel offering, senior management commitment, wellness programmes in bringing sanity to the organization.

The application of each type of technology and the tools used in the hospitality industry and their effectiveness need further interrogation by future researchers and by hotel managers and hoteliers. Such technology requiring further analysis includes robots, mobile technology, the internet of things, blockchain and virtual reality. All these affect guests and patrons, employees, management and overall performance of the hotels. There is a huge potential in service delivery and various other hospitality activities that could be potentially enhanced by technology, including better image projection, higher reputation, and ensuring viability and sustainability of the industry. The study also recommends maximum utilization of technology and continuous improvement in hotels on all operations to enhance operational effectiveness, profitability, and sustainability.

REFERENCES

- Abrahams D. (2019). Transformation of the Tourism sector in South Africa: A possible growth stimulant? *GeoJournal of Tourism and Geosites*, 26(3), 821–830. <https://doi.org/10.30892/gtg.26312-400>
- Afuah, A. (1998). Responding To Structural Industry Changes: A Technological Evolution Perspective. Oxford University Press, Usa, Vol.6, Issue 1, pp. 183-202.
- Canhoto, A.I & Wei , L. (2021). Stakeholders of the world, unite! Hospitality in the time of COVID-19. *International Journal of Hospitality Management*.95,102922.
- Chihwai, P. Ndhlovu, E., & Dube, K. (2023). Exploring trends of South African tourist accommodation occupancy during COVID-19. COVID-19, Tourist destinations and Prospects for recovery.2. An African Perspective.
- Dube, K. (2021). Implications of COVID-19 Induced Lockdown on the South African Tourism Industry and Prospects for Recovery. *African Journal of Hospitality, Tourism and Leisure*, 10(1): 270- 287. DOI: <https://doi.org/10.46222/ajhtl.19770720-99>
- Francis, K., Wamathai, A., Wandaka, J.K.M., & Jilo, N. (2019). GuoAnalysis of the skills gap in Tourism and Hospitality industry in Kenya. *ASEAN Journal on Hospitality and Tourism*. 17, (2) ,95-105

Guo,L., Liu, K.,Song,Y., & Yang, Z.(2021). Recovering hotel room sales during the COVID-19 pandemic: lessons from OTA information using the quantile regression approach. *Current issues in tourism*.25 (1).

Kahn, K. B. (2018). Understanding Innovation. *Business Horizons*, 61, 453-460. <https://doi.org/10.1016/j.bushor.2018.01.011>

Montoya-Weiss, M., & Calantone, R. (1994). Determinants Of New Product Performance: A Review and Meta-Analysis. *Journal Of Product Innovation Marketing*, 11, 397–417.

Moronne,D., Raimo, N., Tarulli, N.,& Vitolla, F.(2021). Digitalisation in the hospitality industry: motivations, effects, and role of COVID-19. *International Journal of digital culture and electronic tourism*. 3, 3-4.

Nhamo, G. Dube, K. & Chapungu, L.(2020). Counting the Cost of COVID-19 on the Global Tourism Industry. Springer Nature Publishing.

Olabode, S. O., Olateju O. I. & Bakare A. A. (2019) An assessment of the reliability of secondary data in management science research. *International Journal of Business and Management Review*.7 (3) 27-43

Polese, F., Botti, A. & Monda, A. (2022), "Value co-creation and data-driven orientation: reflections on restaurant management practices during COVID-19 in Italy", *Transforming Government: People, Process and Policy*, . 16 (2) 172-184. <https://doi.org/10.1108/TG-07-2021-0119>

Quintana, T.A., Nguyen, T.H.H. Araujo-Cabrera, Y., & Sanabria-Díaz , J. (2021). Do job insecurity, anxiety, and depression cause by the COVID-19 pandemic influence hotel employees' self-rated task performance? The moderating role of employee resilience. *International Journal of Hospitality Management*. 94 102868

Rahma, V. S., & Fadhilia Arvianti, G. (2020). The Impacts of COVID-19 pandemic in Indonesia and China's Hotel Industry: How to overcome it? *JELAJAH: Journal of Tourism and Hospitality*, 2(1), 55–64. <https://doi.org/10.33830/jelajah.v2i1.864>

Schumpeter, J.A. (1935). The Analysis of Economic Change. *Review of Economic Statistics*, 2–10.

Srivastava, S., Dey, S.K., Sharma, S. & Ratilla, M. (2023). "Adoption of sustainable practices by Asian hotels: gaps in academia", *Worldwide Hospitality and Tourism Themes*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/WHATT-01-2023-0009>

Sucheran, R. (2021). Preliminary economic impacts of the COVID-19 pandemic on the hotel sector in South Africa. *African Journal of Hospitality, Tourism and Leisure*. 10(1): 115-130. doi:10.46222/ajhtl.19770720-90

Tu, Y., Li ,D., & Wang , J.H. (2021). COVID-19-induced layoff, survivors' COVID-19-related stress and performance in hospitality industry: The moderating role of social support. *International Journal of Hospitality Management* 95 102912.

Twiss, B. (1989). *Managing Technology for Competitive Advantage: Integrating Technological And Organisational Development: From Strategy To Action*. Trans-Atlantic Publications.

Yeswa, L. S. & Ombui, K. (2019). Influence of talent management strategies on employee retention in hotel industry in Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(7), 83-103

SSIRC 2023-190**INVESTIGATING THE USE OF BIG DATA ANALYTICS THROUGH DIGITAL TRANSFORMATION FOR POLITICAL CAMPAIGNS, SOUTH AFRICA****P. Ramafi**

Rhodes University, South Africa

G. Baduza

Rhodes University, South Africa

L. Penxa

Rhodes University, South Africa

ABSTRACT

E-campaigning has become increasingly popular within the political space globally using social media. Political parties currently use this system to solicit votes and reach a greater audience. Traditional political campaigning in South Africa continues to be under threat due to a lack of digitization and digital transformation. This has contributed to low voter turnout and a significant reduction in the percentage of young people coming to vote when they can simply vote and be reached in a digital manner. This influences the decisions that are made on behalf of people that do not vote and their voice fails to be heard in development efforts that are implemented by people in power. Big data analytics can bring many benefits to political campaigns such as voter profiling, microtargeting and fundraising among the many other benefits that come with the technology. The investigation was carried out using a scoping review of the literature and the resulting data was analysed using thematic analysis. The results show that big data analytics, as a component of the digital transformation, is advantageous for political parties in South Africa, allowing them to participate in the digital transformation. The utilisation of e-campaigning could contribute to an increase in the numbers of young voters that participate in elections, especially since the adoption of digital technologies remains highest among the youth around the world. Additionally, political campaigns could greatly benefit from the integration of big data analytics, adding value through the digital transformation. This review indicates that big data analytics as a component of digital transformation is beneficial to e-campaigning to attract the entire population of potential voters.

KEYWORDS: big data analytics, digital transformation, e-campaign, political parties, South Africa

1. INTRODUCTION

The political community is rapidly embracing big data analytics as a technical element of digital transformation. According to Erasmus (2017), the world's most treasured resource is no longer oil, but data. Additionally, the political community is moving toward a data-oriented environment that enables improved decision-making (Nickerson & Rogers, 2014). According to Dommett (2019), there is mounting evidence that both elite and grassroots political campaigners

acknowledge that data is important for election success. As Nickerson and Rogers (2014) point out, campaigns require precise contact details for voters, volunteers, and donors. Such information makes it easier to forecast who will support the party, who will donate and even who will volunteer during election campaigns. Additionally, political parties will also be better prepared to carry out these responsibilities if cost-benefit analyses are carried out using precise projections.

Political parties encounter many difficulties, particularly during political campaigning. Campaigning is an effort to win people's support during elections and is essential for promoting political parties. Some of the primary issues that political parties face during political campaigns includes a lack of resources (Haenschen, 2022), voter apathy (Aliyu et al., 2020) and negative campaigning (Juelich & Coll, 2021). As a result, campaigning calls for a tool that will enable ongoing, cost-effective contact between the party and the public (Nickerson & Rogers, 2014).

Big data is used to describe a vast volume of data that is produced quickly and includes a wide range of different types, necessitating the creation of new technologies and architectures in order to extract value from it. Big data is characterised by three features in particular, volume, velocity and diversity (Elgendy & Elragal, 2014; Fan et al., 2014). In addition to these three Vs, it has many other characteristics such as value, virality, volatility, verbosity, voluntariness, versatility, visualisation, viscosity, and validity (Kapil et al. 2016).

Big data analytics is the process of studying and interpreting enormous amounts of intricate information to uncover important patterns and insights. This often entails processing and analysing data from many sources using sophisticated analytical techniques (Hariri et al., 2019). There are many benefits that come with big data analytics in political campaigns. For instance, big data analytics is being used in such campaigns to identify, target and profile voters (Tufekci, 2014). Further, campaigns may customise their messaging and outreach methods by analysing massive datasets to gather insights on voters' preferences, interests, and behaviours. Additionally, the real-time nature of big data analytics allows for political parties to monitor changes from the side of the public, allowing for adjustments to be made to strategies where necessary to meet the voters' needs (Dommett, 2019). Big data analytics also gives political parties the chance to gain a competitive edge since they can create insights from anywhere in the world at any time, which also results in cost savings (Marr, 2017). Moreover, big data analytics gives political parties the chance to collect information about user personality traits and behaviour from a variety of sources, including social media platforms. This information is then used to target online messaging and advertisements for conservative campaigns (Rosenberg et al., 2018). According to Leong (2019), the conventional media's monopoly of political information has been contested by new media such as social media, which leverages big data analytics and gives users a forum to engage in discussions about politics.

Big data may also be utilised to target certain voters with communications that are tailored to their specific needs during campaigns (Apuke & Apollos, 2017). This move is an element of e-campaigning which entails that a political campaign be carried out online through the use of digital

technology. One of the key benefits of e-campaigning is the capacity to reach a large audience swiftly and affordably (Ceron & d'Adda, 2016).

Nickerson and Rogers (2014) mention that this action can be achieved when campaign data analysts create models based on this data to make individual-level predictions about citizens' tendencies to engage political behaviours, to support candidates and causes, and to alter their support in response to being targeted with campaign interventions. The digital footprints left by people's data have led to an exponential increase in the data sources accessible for social and economic analysis, which expands the scope of socioeconomic research beyond the use of traditional data sources like surveys and official records (Blazquez & Domenech, 2018). Accordingly, data can be organised, unstructured or semi-structured in big data, which is three types (Coronel & Morris, 2016). As a result, there are numerous sources of big data such as search engine data and information transactions (Blazquez & Domenech, 2018), crowdsourcing platforms (Cappa, 2022), polling (Avidon, 2022), public records (Nickerson & Rogers, 2014), media data (Johnson, 2016) and public platforms and sensor data (Blazquez & Domenech, 2018).

2. LITERATURE REVIEW

2.1 Related work

Before the advent of big data analytics, political campaigns struggled with a variety of data-oriented issues that were difficult to handle, especially without technology (Oyedemi & Mahlatji, 2016). According to Fadillah et al. (2019), the data-oriented issues of the public in general and political parties in particular can be addressed by big data analytics.

Previously, for instance, the data-related issues political parties were faced with (Nickerson & Rogers, 2014) were connected to contacting voters, understanding their preferences, and making decisions based on rich, insightful data. Political campaigns have traditionally depended on time-consuming and expensive voter engagement techniques like door-to-door canvassing, phone messages and direct mail (Williams & Gulati, 2018). These strategies are expensive and do not make sense in terms of a cost-benefit analysis, hence incorporating them with technology that is data driven will yield more benefits for the success of the campaign (Avidon, 2022).

The American presidential campaign of Donald Trump in 2016 made use of Cambridge Analytica. The company was hired by the campaign to provide data analysis, digital marketing and voter targeting services in the summer of 2016 using big data (Trish, 2018). This campaign was a success as Cambridge Analytica managed to create psychological profiles of millions of American voters using information from Facebook and other sources, which it then used to target campaign advertisements at voter demographics (González, 2017). This was advantageous since it enabled President Trump's campaign to interact with potential funders and voters and meet their specific needs quickly and directly. Meanwhile, a study done in Indonesia by Fadillah et al. (2019) revealed that big data is already being used in political campaigns. However, it has consequences for Indonesian politics and political party campaigns, as there are still many questions about how ready politicians are to use it.

Comparatively, in Nigeria challenges such as false news and hate speech are prevalent during election seasons giving big data analytics a good opportunity to be on duty (Aleyomi et al., 2018), as it can provide timely communication through social media platforms and other channels. Moreover, a study by Apuke and Apollos (2017) examined public perceptions towards Facebook usage in the 2015 political campaigns in Nigeria, finding Facebook to be one of the social media platforms used for political e-campaigning in the country. According to Swart (2020), during the 2017 Kenyan elections, political party leaders integrated big data analytics from the Electoral and Boundaries Commission and social media to positively advance campaigning, thus demonstrating that the use of Facebook influenced voter turnout. In South Africa, Uwem (2022) alludes to the fact that despite political parties in South Africa attempting to use big data analytics from social media in their campaigning, they have not used it to its full potential. As a result, one of the approaches to help political parties in South Africa during political campaigns is to incorporate big data analytics which is one of the elements of digital transformation. To achieve this the following objectives were formulated for this study; firstly, to establish the benefits of big data analytics for political campaigns, and secondly, to understand how digital transformation can advance political campaigns.

2.2 Understanding the role of digital transformation in political campaigning.

Technology has grown rapidly since computers were introduced in the 1960s (Goldston, 2020). Today, technologies like cloud computing, artificial intelligence, the internet of things (IoT), social media and blockchain are some of the main drivers of the radical change in how enterprises deliver value to customers (Gill et al., 2019). As a result, businesses are under pressure to effectively integrate digital processes and collaborative tools, “not only to stay alive, but to thrive in competitive environments” (Kraus et al., 2021). This has inspired an important phenomenon in strategic Information Systems (IS) research, known as digital transformation (Bharadwaj et al., 2013; Piccinini et al., 2015). Mazzone (2014) defines digital transformation at an organisational level as “the deliberate and ongoing digital evolution of a company, business model, idea process, or methodology, both strategically and tactically”. This definition is supported by Vial (2019) who describes digital transformation as a process where organisations strategically alter their value creation paths in response to disruptions caused by innovative digital technologies; they do so while managing the structural changes and organisational barriers that affect the positive and negative outcomes of this process. For instance, organisations that used traditional ways of marketing started incorporating social media into their marketing campaigns to reach a wider audience while maintaining costs as a way of responding to digital disruption (Kaushik, 2012). Social media has since grown and nowadays organisations use it to harvest data about consumers to obtain feedback, personalise adverts and streamline products to suit their needs (Ali Taha et al., 2021). From all the proposed definitions, at an organisational level, digital transformation is not about the passive adoption of technologies to perform existing activities. Instead, it is a process through which the entire business model of an organisation is redesigned (Casalino et al., 2019; Mazzone, 2014; Vial, 2019).

For organisations to thoroughly analyse the market and competitive trends to steer their plans in the appropriate direction, complementary technologies to digital transformation must be employed (Young & Rogers, 2019). Data analytics is then used to supplement digital transformation initiatives to bring about effective strategies that would not be yielded if digital transformation were used in isolation (Kitsios & Kamariotou, 2021). Data analytics is a technology that uses current and historical data to create patterns and trends that may be utilised to make decisions more effectively (Chaffey & Pattron, 2012). The use of technology by political parties has been aimed at reaching a greater audience to increase their chances of winning elections. Political parties have additionally increased their popularity through interactive communication centred on social media, decentralised and inexpensive access to information production, and information dissemination through a digitally empowered social network (Enjolras & Steen-Johnsen, 2017). Political parties are yet to identify digital transformation as a potential catalyst to transform and construct procedural capabilities and improve their functioning (Borucki, 2022). Based on the digital transformation pyramid continuing digitise, digitisation and digital transformation, political parties are yet to understand how the various layers can improve their efforts (Adamczewski, 2018). At a strategic level, digital transformation provides organisations with structures for developing platforms to engage voters. In addition, strategic approaches are used to conceptualise the ownership of efforts to promote value in customising voters' experience (Adamczewski, 2018; Borucki, 2022).

2.3 The existence and function of political parties

In a democratic society, different groups of human rights subsist such as civil and political rights (e.g., the right to vote, the right to freedom of association, the right to freedom of expression). There are also socioeconomic rights such as the right to access to food and water, access to healthcare, access to housing and access to education. Indeed, a country's government exists to provide social services such as food and water, education, housing and more, which are linked to socioeconomic rights. Government has a twofold structure – an administrative and a political level. The administrative level is made up of public servants that facilitate the provision of these services to ensure that citizens experience their socioeconomic rights. The political level is constituted of politicians who are expected to oversee the provision of social services by public servants. Politicians emerge from political parties, which in turn emerge from the community as the representatives of the citizens. A political party is also viewed as an organised group of people with similar political aims, bound by common interests and opinions, which seeks to influence public policy by getting its candidate elected to public office (Likoti, 2005). Political parties are an integral part of the process for the entrenchment of democracy (Adesanmi, 2023).

According to Egbewole and Muhtar (2010, cited in Adesanmi, 2023), the functions of a political party include:

“Stimulating the citizenry to take a greater interest in election and activities of government, defining political issues of the day and sharpen the choice between alternative paths, presenting candidates who are committed to announce position with respect to issues,

majority party provides basis upon which government can be operated, and accepting responsibility to govern upon winning election.”

Political parties should therefore represent the policy preferences of the party and voters in government. They use political campaigns as a platform on which to present their preliminary policies to convince citizens to vote for them and for post-election political parties to implement them. Political parties develop manifestos that they use to campaign in their communities, seeking to influence the decisions of citizens about which party to vote for. They use existing socioeconomic problems facing citizens as their entry points and persuade citizens to understand how as a party they are going to address these problems once they are voted into government. Citizens vote political parties into power through the election process. By voting for a political party, citizens automatically give these parties a mandate to serve in government, ultimately leading to the development of policies and the monitoring of social services delivery.

2.4 Ethical concerns of big data (privacy, consent, and data ownership)

The widespread use of big data in the digital age has had a significant influence on privacy (Azmoodeh & Dehghantanha, 2020). According to Elkin-Koren and Gal (2019), this has opened a new avenue of governance by data where, using the big data collected, government is able to make certain changes which significantly affect the welfare of the citizens. According to Tiarks et al. (2021), even though big data collection and sharing has become simpler because of technological breakthroughs, such as big data technology, security and legal changes have not kept pace. Meanwhile, Von Grafenstein et al. (2019) state that the accumulation of big data information has resulted in a lack of autonomy at the citizenry level; their study highlights that the collection of citizens' data has high level of cohesion from government. Furthermore, it is highlighted that the fact that legal and security updates are lagging data accountability frameworks could be because they were introduced earlier before technology had advanced this far. For instance, the Health Insurance Portability and Accountability Act (HIPAA) was first introduced in 1996 to protect individuals' data; however, adjustments made thus far have not covered Google searches, wearable device data and smart application data, which in the age of big data cannot be avoided (Tiarks et al., 2021). Meanwhile, the General Data Protection Regulation (GDPR) covers these limitations in privacy and security, as it outlines the way personal data should be generated, processed, and shared (Gurria, 2021). As a result of the discovery that the common law alone is insufficient to safeguard personal data, the Protection of Personal Information Act (POPIA) was promulgated in South Africa (Manyame, 2020). POPIA creates both optional and required safeguards to guarantee the protection of personal information and the right to privacy. Furthermore, according to Regulation (2018), data collectors must declare how the data will be used, especially as the use of the data should rest on three pillars: research, societal benefit, and processing based on consent. Data owners have the right to consent as to who should have access to their data. Furthermore, the data collector has a responsibility to safeguard users' data; if not, it is considered a data breach (Thapa & Camtepe, 2021). This means that the responsible party must ensure that security controls are in place to safeguard users' sensitive data, as well as to ensure the privacy and security of such data. Jensen and Potts (2004) define a "responsible party" as “a public

or private body, or any other person, which alone or in conjunction with others, determines the purpose of and means for processing personal information". Furthermore, Abouelmehdi et al. (2017) states that there are various controls that can be used to ensure security when using big data analytics, for example data masking, encryption, authentication, and high levels of access control.

3. METHODOLOGY

3.1 Research design

The research paradigm used for this research project was interpretivism, which entails a subjective viewpoint where research views reality as a social construction created by humans (Walsham, 1995) and humans generate meaning and are thus different from physical phenomena (Saunders et al., 2016). Interpretivism was deemed appropriate for this research project as big data analytics, digital transformation and leadership are realities constructed by humans, and given meaning by humans. Therefore, big data analytics, digital transformation and political campaigning will be subjective to companies, leaders, employees, and voters.

In this research project, interpretivism was applied using the metatheoretical assumptions of Weber (2004), which are the foundation of interpretivism. The assumptions held in this research are that the researcher and reality are indivisible, and the understanding of reality is formed by a person's (i.e., the researcher's) experience. Other assumptions are that the research objectives are translated through the researcher's lived experiences, the data and knowledge do not precisely measure the reality but are justifiable, and finally, the researcher acknowledges their subjectivity.

This section is divided into three subsections: section 3.2 specifies the sampling and eligibility criteria, which include the language and content type. It also describes the information sources as well as the development of the search string. Sections 3.2.2 and 3.2.3 outline the three-step search strategy and section 3.2.4 provides the data mapping and analysis.

3.2 Sampling method

The eligibility criteria were used to outline what should be included in and excluded from the study; it guided the development of a search string, which was used to find the relevant articles. After the articles were retrieved, they were further inspected for relevance based on title, abstract, index terms and references. The language considered was English because of the researcher's ability to access and comprehend what was said in the research articles in that language. For the review, we aimed to achieve data that was published in the past five years, so that a discussion is presented according to the latest findings and to prevent the occurrence of obsolete data. We also aimed to use published material, as such material is peer-reviewed and validated to be true, so that it could be reused in our research.

3.2.1 Eligibility criteria

- Language: English
- Years considered: 2018–2023.

- Publication status: published.

3.2.2 Information sources

The databases that were used to retrieve the articles were Google Scholar, ACM Digital Library, JSTOR and Emerald Insight.

3.2.3 Search

The advanced search feature of the identified databases was used to conduct the search and the search string was developed based on the following:

- **Concept:** Essential concepts studied in this research are “big data analytics” and “digital transformation”, therefore these phrases were both included in the initial search string.
- **Context:** “Political campaigning” was the context that was investigated; as such, this phrase formed part of the initial search string.
- **Population:** The focus of this research was on political parties; however, an explicit phrase to account for the population was excluded from the search string.

Table 3.1 Development of the search string

| | No. | Concepts | Context | Population |
|-----------------------------|---------------------|--|---------------------------------------|-------------------------|
| Initial keyword development | 1 | “Data analytics”, digital transformation” | “Political campaigns”, e-campaigns” | “Political groups” |
| | 2 | “Big data”, “dx” | “Political e-campaigning”, “politics” | “Politics parties” |
| | 3 | “Big data analytics”, “digitization” | “Political campaigning” | “Political campaigning” |
| Inclusion criteria | Final keywords | big data analytics, digital transformation, political campaigning | | |
| | Final search string | “Big Data Analytics” AND “Political Campaigns” AND “Digital Transformation” OR “Data Analytics” AND “Electoral Campaigns” OR "Election Campaign" | | |

3.2.4 Data mapping and analysis

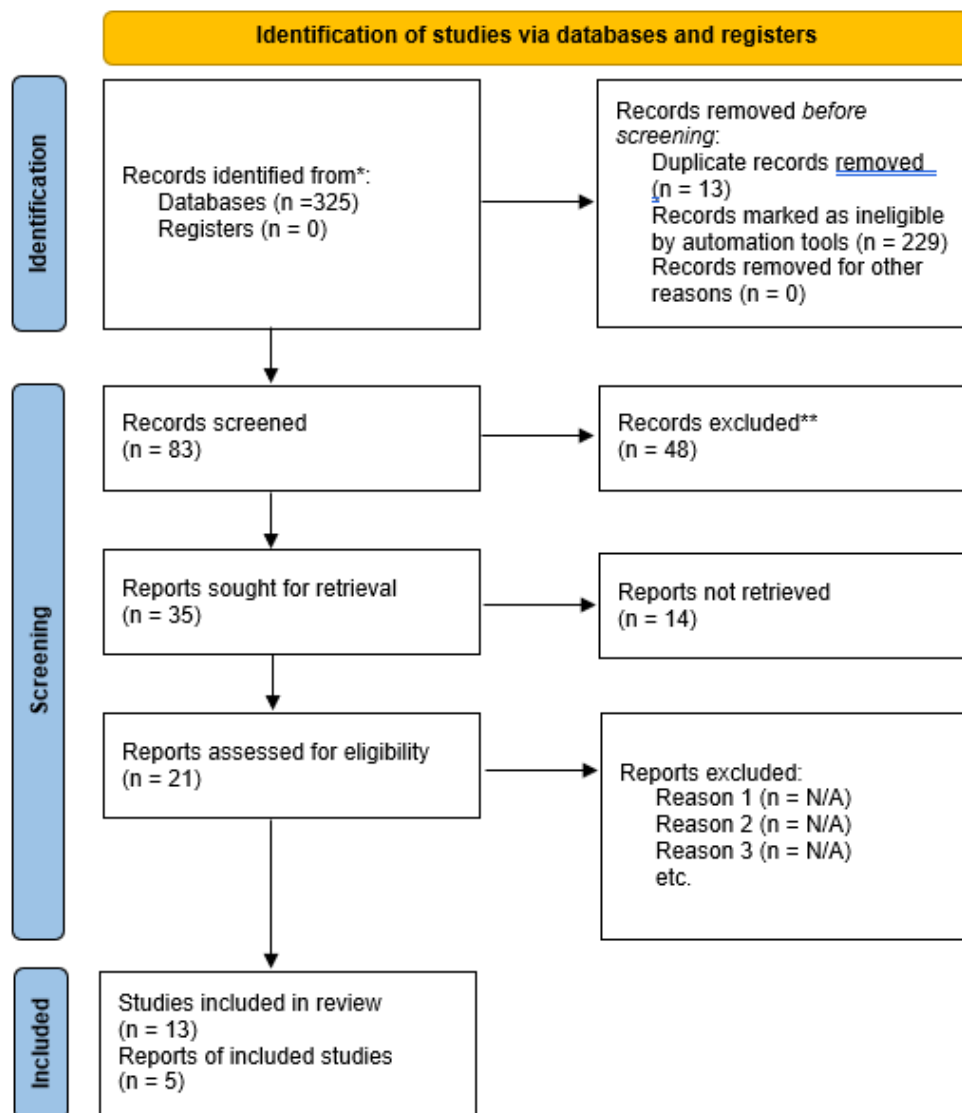
The search string was entered into ACM Digital Library, JSTOR, Emerald Insight, and an online resource called “Publish or Perish” in order to gain a full list of publications, including those from Google Scholar. These databases produced a total of 325 records of which ACM Digital Library produced 145, JSTOR produced one, Google Scholar produced 140 and Emerald Insight produced 27. The list of publications was then exported as a combination of Text and BibTex files, which were subsequently imported into Rayyan. At this point the limitations of the mapping process that were noted included the fact that the list of publications was not sourced directly from Google Scholar but a program that searched the database of Google Scholar. After detecting 13 duplicates, 312 articles remained, and 229 articles were excluded based on title and abstract. This left 83 records to be assessed.

Data items: the variables considered are listed below:

- (1) Author(s)
- (2) Year of publication
- (3) Source origin/country of origin
- (4) Aims/purpose
- (5) Study population and sample size
- (6) Key findings that relate to the review question

3.4 Data collection

Selection of sources of evidence: The final number of results obtained was 325 and the results on each database are shown in the PRISMA-ScR diagram below. Of the retrieved articles, 13 were duplicates. After the duplicates were deleted, 229 articles remained. Of the remaining articles, the majority, i.e., 48, had to be excluded because they were irrelevant. Other studies were excluded because they did not meet the inclusion criteria (e.g., written in a foreign language). The number of articles that remained after the screening process was 21. Eighteen articles were hand-searched to obtain a total number of 39.



3.5 Data analysis

Based on the final number of articles that were obtained from the PRISMA diagram, a detailed data mapping process commenced using a spreadsheet. The most used and most influential method in qualitative data analysis is thematic analysis, which is used to identify, analyse, and report on themes that emerge from the data used (Bazeley; 2013; Braun & Clarke, 2006; Maguire & Delahunt, 2017). To assist in the data analysis process for this research, Braun, and Clark (2006) propose a six-phased process which can be applied in a flexible manner to suit the research and its questions.



Figure 3.2 Keywords from the code analysis

4. RESULTS AND FINDINGS

4.1 Key benefits obtained from using big data analytics for political campaigns.

It is evident from the literature review that political campaigns may benefit from big data analytics (Anshari & Almunawar, 2018). Brkan (2023) argues that more still needs to be done to address the misuse of personal data for the purposes of political campaigns. Furthermore, Hegazy (2021) suggests that there is a lack of ethical behaviour in the use of big data by political parties when analysing voter data. The practical application of big data for political campaigning involves a number of major stakeholders, including political parties, data science firms, social media, and maybe even search engines, as well as government bodies that may be sharing voter data. Therefore, the regulation of the data should be done at the level of all those entities. Although there are loopholes, the positive outweighs the negative when using big data for political campaigning.

Moslehpour et al. (2021) assert that the use of big data in social media marketing influences voter intentions favourably through constant customisation and interaction. Customisation is important in political campaigns because it engages people by providing them with solutions to their problems, which strengthens support for politicians. Meanwhile, political campaign stakeholders can ensure that intentional communication occurs especially using digital media such as social media to address issues in real time. This can help stakeholders act swiftly where necessary to stay ahead and gain a competitive edge among their competitors (Fadillah et al., 2019). Furthermore, big data benefits political campaigning through voter profiling (Judge & Pal, 2021). Voter profiling is important in political campaigns since it involves learning more about specific individuals' ideas, values and voting tendencies. Additionally, big data analytics can use algorithms to generate neuromarketing (Hegazy, 2021). This was demonstrated in Donald Trump's 2016 presidential campaign, which was able to seize control of American political customers'

thoughts and influence their votes. Furthermore, it is noted that one advantage of incorporating big data in political campaigns is the ability to track voters, known as voter surveillance (Kusche, 2020). Although there are mixed feelings about voter data being used for surveillance, if done within ethical boundaries it can bring many benefits such as the prediction of voter turnout and the allocation of resources. Lastly, big data analytics in political campaigns can equip political campaign stakeholders with information to manage “fake news” on the internet (Lewandowsky & Van Der Linden, 2021). By examining massive amounts of data from social media sites, stakeholders may find patterns and trends in the spread of false information. This may help in the creation of public relations campaigns to halt the spread of false information.

4.2 Advancements in digital political campaigning

Voters are consumers who have experienced being valued and their demands being met during their engagements with existing commercial businesses. Adamczewski (2018) confirms this by indicating that political parties must rethink and adjust their interaction with voters who are beings in a socio-technical environment. This acknowledges the way in which voters are empowered to be more inclusive and to demand more from the government, and hence, from political parties through campaigns (Bennett et al., 2018). Through their increased awareness, citizens have greater expectations of campaigns, expecting them to match up to their digital needs and their current use of technology (Bennett et al., 2018; Dommett & Temple, 2017). The fact that users have platforms to debate, share opinions, share ideas and engage identities in modern societies therefore continues to force political parties to become communicative institutions that allow voters this engagement (Enjolras & Steen-Johnsen, 2017). Voter engagement thus emanates as the first theme in understanding how political parties can benefit from digital transformation.

To advance digital transformation to improve customer experience, there is a need to be well versed in social, mobile, analytics, cloud and IoT (SMACIT) technologies (Adamczewski, 2018; Gill et al., 2019; Vial, 2019). Multi-modal platforms is another key theme that emanated from the analysis. The impact of this on political parties is the need to understand how they will manage their access to voters and manage what they know about them. Digital infrastructure is of importance here, as this will enable diverse campaign activities, canvassing systems and digital databases to enable multi-modal platforms (Dommett & Temple, 2017). Another key theme that could advance political campaigning is the concept of a digital strategy. According to Vial (2019), how an organisation uses technology to advance its business strategy is heavily determined by its alignment to IT strategy. One of the key issues that emanated from the analysis was that of political campaigns being driven by a party's mandate, with the technology used as medium and not a strategy (Wimmer, 2012). A clear digital strategy enables parties to have direction on how they will collectively mobilise, use alternative media, and entice individual media activism from influential collaborations to canvas for political parties (Adamczewski, 2018; Wimmer, 2012). The last theme that indicated how digital transformation could advance political campaigning is the establishment of an enabling digital organisational culture. Political campaigning, particularly in South Africa, is enabled by physical mobilisation which has developed into a political culture of campaigning. Sandoval-Almazan and Valle-Cruz (2018) indicate that digital culture is a key contextual factor that is underestimated, but integral and powerful, when combined with digital

strategy. The ability of political parties to provide a personalised voter experience will depend on having the correct skills, infrastructure and employee relations that work in sync (Dommett & Temple, 2017). Political parties, therefore, need to apply future-forward practices that will result in “fundamental change in organisational cultures and capabilities” to address the changing landscape of digital campaigning (Neudert, 2020).

4.3 Understanding how political parties can utilise e-campaigning to increase voter participation during elections.

Election campaigns constitute an integral part of South Africa’s democratic system. Since 1994, political parties in South Africa have campaigned fiercely. Fourie (2013) argues that political campaigns are necessary as they must be carried out to sustain democracy. In addition, they should attract voter attention and inform voters to foster democratic values through political socialisation and stimulating debate while motivating voters to vote. This confirms the relevance of campaigning in the South African context. Africa’s (2020) study examines the relevance of campaigning in the South African context from 1994–2019, focusing on the ANC, DA, IFP and NP/NNP, revealing that campaigns are indeed relevant, but more attention needs to be paid to the quality of choices offered to voters via campaigns. This study further reveals that for a party to perform well, high levels of credibility, general consistency of messaging over time and congruence of messages in a campaign are required (Africa, 2019).

In the era of digital transformation, political parties are using digital campaigning to increase voter participation to maintain relevance during elections. In the 2009 elections, television advertising was introduced for the first time in South Africa (Fourie, 2013). In the same election year, an explorative study was done by Bankole and Oludayo (2012) on the impacts and implications of blogging. The findings revealed that the use of blogs for political campaigning was still new. As a result, there was limited citizen participation in political blogging. Most bloggers used their blogs to share information and their opinions on other issues. Nonetheless, the ANCYL used the social media platform Mxit to mobilise youth participation during the 2009 elections. This strategy appealed to young voters and helped the ANC to win the election (Walton & Donner, 2011). Dabula (2017) argues that there is value in using social media during election campaigns. She studied how political parties in South Africa use social media for political marketing to engage with the youth and improve their election turnout. Dabula (2017) found that social media has an influence on voter trust and voter loyalty. A study done by Schulz-Herzenberg (2020) on the 2019 general elections revealed that loyalty is indeed an important component because half of the South African voters were not guided by party loyalties in their decisions. Additionally, social media can transform the way citizens learn and participate in politics and revolutionise the way candidates’ campaign. Furthermore, during the 2016 local government elections, the ANC, and DA used Twitter as a digital political mobilisation tool. Dhawraj et al. (2021) examined how the ANC and DA used Twitter during the 2016 local government elections and found that the DA leveraged the social networking site more for intense focused messaging of its negative campaign against the ANC, while promoting positive electoral messages around its own core issues and urban mayoral candidates. Overall, South African political parties see the value of using e-campaigning to increase voter participation during elections but must still complement this strategy with

conventional and established campaigning methods such as rallies, door-to-door campaigns, posters and the like (Dabula, 2017; Fourie, 2013).

4.4 Conceptual framework: Big Data Analytics for Digitally Transformative Political Campaigns (BDA4 Dx Political Campaigns)

4.4.1 Brief outline of the framework

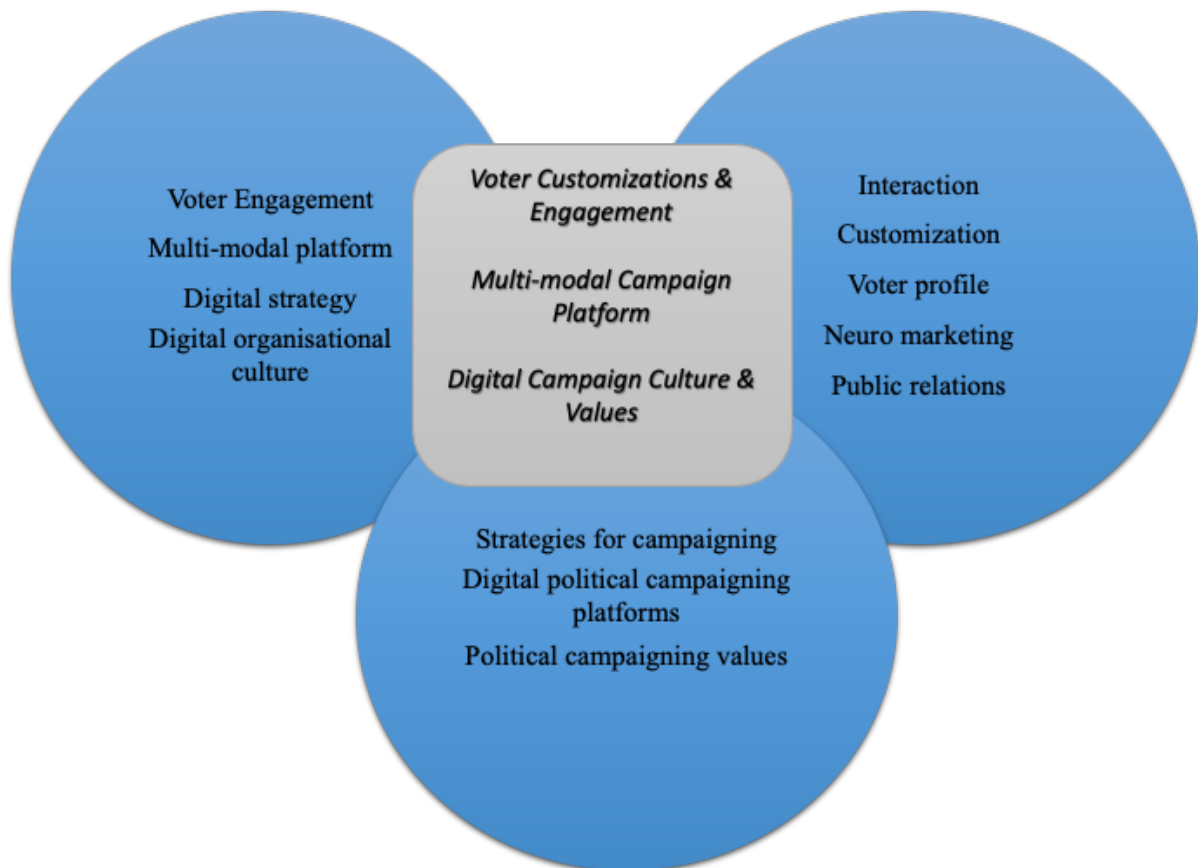


Figure 4.1 BDA4 Dx Political Campaigns

4.4.2 Voter customisation and engagement

Voter engagement is necessary during political campaigns to stimulate debate while motivating voters to vote. Such engagement also fosters democratic values. We argue that voter engagement should lead to voter customisation, meaning that political parties must rethink and adjust their interactions with voters who are beings in a socio-technical environment. Easy access to technology has meant that voters are empowered with knowledge acquired during voter engagements on social media platforms and thus their expectations of political parties are higher. Hence, there is a need for voter customisation for the political campaigns to achieve their intended purpose.

4.4.3 Multi-modal campaign platform

Digital campaigns need to occur on multi-modal platforms, which means political parties need to be exposed to SMACIT technologies. These technologies can ensure that political parties not only work hard to access voters but also manage the knowledge they discover about voters. Additionally, the use of multi-modal platforms can ensure that political parties conduct campaigns on different platforms that may work effectively for different parties with the benefit of increasing voters.

4.4.4 Digital campaign culture and values

We have shown above that South African political parties are still mostly campaigning in the conventional way. The findings further revealed that although digital campaigning has started in South Africa it has not been used to its full potential. Therefore, political parties in South Africa need to adopt a culture of digital campaigning. In the literature section, we have shown the benefits of digital campaigning globally with specific reference to the United States, Nigeria and Indonesia. In the South African context, we have traced the use of digital campaigns since the 2009 elections. The evidence provided above shows that digital campaigning was used as means to an end (i.e., only during the election period) and contributed to an increase in voters from the youth demographic. We recommend the adoption of a digital campaign culture on a sustainable basis. To preserve this culture, political parties need to have high levels of credibility so that they can earn the trust and loyalty of voters.

5. CONCLUSION AND FUTURE WORK

Most South African citizens have smart mobile devices that have internet access. Given that, political leaders should take advantage of this when running political campaigns by utilising both traditional techniques and digital platforms, thus drawing in the youth that is not yet eligible to vote and accommodating voters of all ages.

We have highlighted the number of challenges that exist during political campaigns, including voter apathy which is prevalent among the youth who are generally tech-savvy, socially conscious and convenience driven. Therefore, political parties should adopt a more online strategy for political campaigns, referred to as an "e-campaign", profiting them by increasing their constituency numbers. Furthermore, this would help to highlight burning issues that require the attention of the political campaign stakeholders, as well as promoting real-time engagement between party members, donors and potential voters.

Digital transformation strategies are not only there to improve service delivery and productivity in an organisation but also to bring customer satisfaction and cost saving, as well as enhance collaboration and communication. As a technological component of digital transformation, big data analytics can assist political parties in transforming their campaigns and gaining further advantages from the incorporation of big data into political campaigns.

As previously noted, data is an important asset in an organisation. In the political space, data-orientated campaigns come with many benefits such as voter profiling, enhanced voter engagement and customised campaign approaches which will give the political party a competitive advantage in the election. However, the use of digital platforms for political

campaigns should be coupled with the application of human intelligence such as good interpersonal skills. This allows for candidates to build trust, persuade voters, and resolve conflict which require a more human approach. This will help accommodate the entire spectrum of personalities, as some people tend to be introverts or less trusting on the internet platform. Lastly, the use of digital media is accompanied by many threats such as threats to privacy, security and misinformation or fake news. Therefore, political parties should ensure that they are ready to take part in developmental strategies such as integrating big data analytics in their political campaigns. Digital transformation readiness is threefold – cultural, technical, and organisational readiness should be achieved to participate in data-orientated campaigns. The findings in this paper indicate that although South African political parties are starting to include big data analytics in their political campaigns, they have not yet fully grasped the potential of the technology. Therefore, more still needs to be done in this regard.

Study relevance/contribution

This study clarifies the potential of non-conventional big data sources used in political campaigns to elevate digital transformation processes in political campaigning. This research may also help with policy advancement in political campaigning using big data sources.

Future studies

Future studies could investigate the readiness criteria for the integration of big data analytics as a transformative digital element in political campaigns. Furthermore, studies could examine policy related to the regulation of data collected by political parties. Lastly, there is a need to examine access to the security threads associated with the use of big data in political campaigns.

REFERENCES

- Abouelmehdi, K., Beni-Hssane, A., Khaloufi, H. and Saadi, M. (2017). Big data security and privacy in healthcare: A Review. *Procedia Computer Science*, 113, pp.73-80.
- Adamczewski, P. (2018). The Digital Transformation Pyramid on Intelligent Organizations. *IT for Practice*, 65–78.
- Adesanmi, F.O. (2023). Political Party, Voters' Mobilization and Democratic Governance in Nigeria: Analysis of the 2018 Osun State Gubernatorial Election. *KIU Journal of Social Sciences*, 8(4), pp.39-49.
- Azmoodeh, A. and Dehghantanha, A. (2020). Big data and privacy: Challenges and opportunities. *Handbook of Big Data Privacy*, pp.1-5.
- Africa, C. (2020). Do election campaigns matter in South Africa? An examination of fluctuations in support for the ANC, DA, IFP and NNP 1994–2019. *In Reflections on the 2019 South African General Elections (pp. 7-25)*. Routledge.
- Aleyomi, M. B., Olanrewaju, O. A., & Otu, O. A. (2018). Mass media and political campaigns during the Nigerian 2015 presidential elections. *Journal of Communication and Media Research*, 10(2), 174–185.

-
- Ali Taha, V., Pencarelli, T., Škerháková, V., Fedorko, R., & Košíková, M. (2021). The use of social media and its impact on shopping behavior of Slovak and Italian consumers during COVID-19 pandemic. *Sustainability*, 13(4), 1710.
- Aliyu, L. O., Mohammed, I. D., & Bello, M. F. (2020). The blemish of voter apathy in sustaining democratic governance in Nigeria: The role of political parties. *Journal of Social and Political Sciences*, 3(3).
- Anshari, M. and Almunawar, M.N. (2018). Social customer relationship management, election, and political campaign. *International Journal of Electronic Customer Relationship Management*, 11(4), pp.332-346.
- Apuke, O. D., & Apollos, I. N. (2017). Public perception of the role of Facebook usage in political campaigns in Nigeria. *Informing Science: International Journal of Community Development & Management Studies*, 1, 85–102.
- Avidon, E. (2022). *Election campaigns recognize need for analytics in politics*. <https://www.techtarget.com/searchbusinessanalytics/feature/Election-campaigns-recognize-need-for-analytics-in-politics>
- Bankole, O.M. and Oludayo, B.S. (2012). Internet use among undergraduate students of olabisi onabanjo university, ago Iwoye, Nigeria. *Library Philosophy and Practice*, 812, 1-16.
- Bennett, W. L., Segerberg, A., & Knüpfer, C. B. (2018). The democratic interface: Technology, political organization, and diverging patterns of electoral representation. *Information, Communication & Society*, 21(11), 1655–1680.
- Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. V. (2013). Digital business strategy: toward a next generation of insights. *MIS Quarterly*, 471–482.
- Blazquez, D., & Domenech, J. (2018). Big data sources and methods for social and economic analyses. *Technological Forecasting and Social Change*, 130, 99–113.
- Bazeley, P. (2013). *Qualitative data analysis: Practical strategies*. Sage.
- Borucki, I. (2022). *Digital transformation as organizational change for political parties: A narrative review*. <https://dx.doi.org/10.2139/ssrn.4098439>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Brkan, M. and Vilfan, H.P. (2023). Book Review: Digital Constitutionalism in Europe: Reframing Rights and Powers in the Algorithmic Society, by Giovanni De Gregorio. (Cambridge: Cambridge University Press, 2022). *Common Market Law Review*, 60(5).
- Cappa, F. (2022). Big data from customers and non-customers through crowdsourcing, citizen science and crowdfunding. *Journal of Knowledge Management*, 26(11), 308–323.
- Casalino, N., Żuchowski, I., Labrinos, N., Munoz Nieto, Á. L., & Martín, J. A. (2019). Digital strategies and organizational performances of SMEs in the age of Coronavirus: balancing digital transformation with an effective business resilience. *Queen Mary School of Law Legal Studies Research Paper*, forthcoming.
-

-
- Ceron, A., & d'Adda, G. (2016). E-campaigning on Twitter: The effectiveness of distributive promises and negative campaign in the 2013 Italian election. *New Media & Society*, 18(9), 1935–1955.
- Coronel, C., & Morris, S. (2016). *Database systems: Design, implementation, & management*. Cengage Learning.
- Chaffey, D. and Patron, M. (2012). From web analytics to digital marketing optimization: Increasing the commercial value of digital analytics. *Journal of Direct, Data and Digital Marketing Practice*, 14(1), 30-45.
- Dabula, N. (2017). The influence of political marketing using social media on trust, loyalty and voting intention of the youth of South Africa. *Business & Social Sciences Journal*, 2(1), 62-112.
- Dommett, K. (2019). Data-driven political campaigns in practice: Understanding and regulating diverse data-driven campaigns. *Internet Policy Review*, 8(4).
- Dommett, K., & Temple, L. (2018). Digital campaigning: The rise of Facebook and satellite campaigns. *Parliamentary Affairs*, 71(suppl_1), 189–202.
- Dhawraj, R., du Plessis, D.F. and Du Plessis, C. (2021). South Africa's 2016 Municipal elections How the ANC and DA leveraged Twitter to Capture the Urban Vote. *Journal of African Elections*, 20(1), 1-22.
- Elgendy, N., & Elragal, A. (2014). Big data analytics: a literature review paper. Advances in Data Mining. Applications and Theoretical Aspects *Proceedings of the 14th Industrial Conference, ICDM 2014*. St. Petersburg, Russia, July 16–20.
- Elkin-Koren, N. and Gal, M.S. (2019). The chilling of governance-by-data on data markets. *U. Chi. L. Rev.*, 86, p.403.
- Enjolras, B., & Steen-Johnsen, K. (2017). The digital transformation of the political public sphere: A sociological perspective. In F. Engelsstad, H. Larsen, J. Rogstad, & K. Steen-Johnsen (Eds.), *Institutional change in the public sphere: Views on the Nordic model* (pp. 99–117). De Gruyter.
- Erasmus, D. (2017). Shooting in the dark. *Farmer's Weekly*, (17036), 4–4.
- Fadillah, D., Zhenglin, L., & Hao, D. (2019). Big data and the revolution of political campaign in Indonesia. *2019 Ahmad Dahlan International Conference Series on Education & Learning, Social Science & Humanities* (ADICS-ELSSH 2019).
- Fan, J., Han, F., & Liu, H. (2014). Challenges of big data analysis. *National Science Review*, 1(2), 293-314.
- Fourie, L. (2013). Political radio and television advertisements in a young democracy: the 2009 South African national election campaign. *Journal of Public Affairs*, 13(3), pp.298-307.
- Gill, S. S., Tuli, S., Xu, M., Singh, I., Singh, K. V., Lindsay, D., Tuli, S., Smirnova, D., Singh, M., & Jain, U. (2019). Transformative effects of IoT, blockchain and artificial intelligence on cloud computing: Evolution, vision, trends and open challenges. *Internet of Things*, 8, 100118.
- Goldston, J. (2020). The evolution of digital transformations: A literature review. *IEEE-Science, Engineering, and Management*, 7(12), 89–106.
-

-
- González, R. J. (2017). Hacking the citizenry? Personality profiling, 'big data' and the election of Donald Trump. *Anthropology Today*, 33(3), 9–12.
- Haenschen, K. (2022). The conditional effects of microtargeted facebook advertisements on voter turnout. *Political Behavior*, 1–21.
- Hariri, R. H., Fredericks, E. M., & Bowers, K. M. (2019). Uncertainty in big data analytics: Survey, opportunities, and challenges. *Journal of Big Data*, 6(1), 1–16.
- Hegazy, M.A. (2021). The Balanced Scorecard: Measures that Drive Performance Evaluation in Auditing Firms. *Journal of Accounting, Auditing & Finance*, October 2020, 1-26. In *The Balanced Scorecard: Measures that Drive Performance Evaluation in Auditing Firms*. *Journal of Accounting, Auditing & Finance*, 3(1),1-26.
- Jensen, C. and Potts, C. (2004). Privacy policies as decision-making tools: an evaluation of online privacy notices. In *Proceedings of the SIGCHI conference on Human Factors in Computing Systems* (pp. 471-478).
- Johnson, D. W. (2016). *Campaigning in the twenty-first century: Activism, big data, and dark money*. Routledge.
- Judge, E.F. and Pal, M. (2021). Voter privacy and big-data elections. *Osgoode Hall LJ*, 58, p.1.
- Juelich, C. L., & Coll, J. A. (2021). Ranked choice voting and youth voter turnout: The roles of campaign civility and candidate contact. *Politics and Governance*, 9(2), 319–331.
- Kapil, G., Agrawal, A., & Khan, R. (2016). A study of big data characteristics. Paper presented at the 2016 International Conference on Communication and Electronics Systems (ICCES).
- Kaushik, R. (2012). Impact of social media on marketing. *International Journal of computational engineering & Management*, 15(2), 91–95.
- Kitsios, F., & Kamariotou, M. (2021). Artificial intelligence and business strategy towards digital transformation: A research agenda. *Sustainability*, 13(4), 2025.
- Kraus, S., Durst, S., Ferreira, J. J., Veiga, P., Kailer, N., & Weinmann, A. (2022). Digital transformation in business and management research: An overview of the current status quo. *International Journal of Information Management*, 63, 102466.
- Kusche, I. (2020). The old in the new: Voter surveillance in political clientelism and datafied campaigning. *Big Data & Society*, 7(1), 1-15.
- Leong, P. P. Y. (2019). *Malaysian politics in the new media age: Implications on the political communication process*. Springer.
- Lewandowsky, S. and Van Der Linden, S. (2021). Countering misinformation and fake news through inoculation and prebunking. *European Review of Social Psychology*, 32(2), 348-384.
- Likoti, F.J. (2005). Investigating Intra-party Democracy in Lesotho: Focus on Basutoland Congress Party and Basotho National Party, Electoral Institute for Sustainable Democracy in Africa (EISA). Retrieved from <https://policycommons.net/artifacts/1448763/investigating-intra-party-democracy-in-lesotho/2080542/> on 27 Sep 2023. CID: 20.500.12592/6qn080.
- Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education*, 9(3).
-

-
- Marr, B. (2017). *Data strategy: How to profit from a world of big data, analytics and the internet of things*. Kogan Page.
- Mazzone, D. M. (2014). *Digital or death: digital transformation: the only choice for business to survive smash and conquer*. Smashbox Consulting.
- Moslehpour, M., Ismail, T., Purba, B. and Wong, W.K. (2021). What makes GO-JEK go in Indonesia? The influences of social media marketing activities on purchase intention. *Journal of Theoretical and Applied Electronic Commerce Research*, 17(1), pp.89-103.
- Neudert, L. M. (2020). Hurdles and pathways to regulatory innovation in digital political campaigning. *The Political Quarterly*, 91(4), 713–721.
- Nickerson, D. W., & Rogers, T. (2014). Political campaigns and big data. *Journal of Economic Perspectives*, 28(2), 51–74.
- Oyedemi, T., & Mahlatji, D. (2016). The ‘born-free’ non-voting youth: A study of voter apathy among a selected cohort of South African youth. *Politikon*, 43(3), 311–323.
- Piccinini, E., Hanelt, A., Gregory, R., & Kolbe, L. (2015). *Transforming industrial business: the impact of digital transformation on automotive organizations*. Paper presented at the International Conference on Information Systems, Fort Worth TX.
- Rosenberg, M., Confessore, N., & Cadwalladr, C. (2018). How Trump consultants exploited the Facebook data of millions. *The New York Times*, 17(3), 1.
- Sandoval-Almazan, R., & Valle-Cruz, D. (2018). Facebook impact and sentiment analysis on political campaigns. In *Proceedings of the 19th annual international conference on digital government research: governance in the data age*.
- Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research methods for business students* (4th ed.). Pearson.
- Schulz-Herzenberg, C. (2020). *The Decline of Partisan Voting and the Rise in Electoral Uncertainty in South Africa’s 2019 General Elections*. In *Reflections on the 2019 South African General Elections* (98-116). Routledge.
- Swart, M. (2020). ‘Big Data’ and Africa’s political campaigns: The growth (pains) of Africa’s Technological Democracy [31 April 2023]. <https://www.inonafrica.com/2020/09/16/big-data-and-africas-political-campaigns-the-growth-pains-of-africas-technological-democracy/>
- Thapa, C. and Camtepe, S. (2021). Precision health data: Requirements, challenges and existing techniques for data security and privacy. *Computers in biology and medicine*, 129, p.104130.
- Trish, B. (2018). Big data under Obama and Trump: The data-fueled US presidency. *Politics and Governance*, 6(4), 29–39.
- Tufekci, Z. (2014). *Engineering the public: big data, surveillance and computational politics*. First Monday.
- Uwem, S.U. (2022). The use of social media by three political parties during South Africa’s 2014 general election. *Digital Policy Studies*, 1(2), 40-46.
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144.
-

von Grafenstein, M., Wernick, A. and Olk, C. (2019). Data governance: Enhancing innovation and protecting against its risks. *Intereconomics*, 54, pp.228-232.

Walton, M. and Donner, J. (2011). Public access, private mobile: The interplay of shared access and the mobile Internet for teenagers in Cape Town. *Global impact study research report series*; October 2012.

Walsham, G. (1995). Interpretive case studies in IS research: nature and method. *European Journal of information systems*, 4(2), 74–81.

Williams, C. B., & Gulati, G. J. J. (2018). Digital advertising expenditures in the 2016 presidential election. *Social Science Computer Review*, 36(4), 406–421.

Wimmer, J. (2012). The times they are a-changin'. The digital transformation of 'classic' counter-public spheres. *CM Komunikacija i mediji*, 7(23), 5–22.

Young, A., & Rogers, P. (2019). A review of digital transformation in mining. *Mining, Metallurgy & Exploration*, 36(4), 683–699.

SSIRC 2023-191**REPORTING THE PERCEPTUAL DIFFERENCES OF WEARABLE ACTIVITY TRACKERS AMONG STUDENTS REGISTERED AT THREE TYPES OF UNIVERSITIES IN SOUTH AFRICA****C. Muller**

North-West University, South Africa

ABSTRACT

Smartwatches and wearable activity trackers (WATs), with an estimated 48.2 billion USD income potential for 2023, are becoming increasingly popular among Generation Y consumers, particularly the student population. To assist WAT brands and device manufacturers in targeting the student cohort successfully, this study aimed to determine whether perceptual differences exist between students registered at the three types of Public Higher Education Institutions (HEIs) in terms of nine specific variables. A descriptive research design and cross-sectional approach guided this investigation. Data were collected from a non-probability sample of 462 undergraduate university students aged 18 to 24, registered at a traditional, comprehensive and university of technology, using a self-administered questionnaire. SPSS version 28.0 was used to analyse the data and descriptive statistics (frequencies), reliability and validity analysis, one-way ANOVA, a Tuckey HSD post-hoc test and a Kruskal-Wallis H test based on mean ranks and median values were performed to reach conclusions. The findings indicate significant differences for six of the nine variables favouring the university of technology students. Notably, there were no significant differences among students' attitudes, brand names and perceived ease of use across the campuses. The findings have several managerial and practical implications. While students, regardless of their institution, intend to use a WAT device in the future, WAT manufacturers are nonetheless tasked with strategising their targeting efforts for the student population, where practical recommendations are made regarding each of the nine variables.

KEYWORDS: Consumer behaviour, Generation Y students, perceptions, technology adoption, wearable activity trackers

1. INTRODUCTION

The wearable activity tracker (WAT) market, specifically activity and health trackers, has been soaring since its commercialisation in 2009 after taking some time for consumers to accept these devices as a norm. A WAT is defined as “any type of device that is attachable to the human body, including clothing items, capable of measuring the user’s movement and fitness-related metrics, while simultaneously providing real-time feedback using a smart device” such as a smartphone, desktop application or web service (Muller, 2022). The global WAT market is projected to generate \$48.2 billion by 2023 (P&S Market Research, 2018). The South African market, though lacking behind compared to larger economies, generated a reported \$134 million in 2021 (Statista, 2021) and in 2020 ranked 18th and 17th worldwide in terms of revenue generated and user penetration, respectively. As such, within the wearables market, WATs are the largest category and dominate in terms of unit sales (Statista, 2020).

Perhaps the success of this technology worldwide can be attributed to the numerous benefits users

get, such as tracking their basic health-related metrics, including daily steps and distance walked, calories expended (Beckham, 2012), various sports activities, including walking, running, cycling, and swimming, measure stress levels (Nield, 2017) and users' static or optical heart-rate data (Rettner, 2014). As these devices became more advanced, numerous sports profiles were added and users can record essentially any sport that exists, they can also monitor sleep quality and patterns, 24/7 respiration (Fortune Business Insights, 2020), and users can enter food and hydration data directly onto the device or corresponding application (Caddy, 2016) like MyFitnessPal. Top-of-the-line devices can provide users with extensive training and performance data, measure blood oxygen levels, have full colour or OLED displays commonly found on smartphones, are fully waterproof, are equipped with a GPS chip and limited devices with an integrated solar panel.

Consumers who find these devices appealing and are the drivers of the success of this market in the country form part of the Generation Y cohort, as defined by Markert (2004), who declared these individuals as being born between 1986 and 2005. That is, globally, wearable technology is adopted by consumers between the ages of 25–34 years (Ericsson Consumerlab, 2016), whereas in South Africa, the WAT market is driven by individuals aged 18–34 years (Statista, 2020; 2021). Since these individuals grew up during the technological revolution, have been accredited as innovative and technologically astute (Muller, 2022), and have become increasingly health-conscious, it is no surprise that Generation Y consumers dominate the WATs market. Furthermore, Generation Y students, typically aged 18–24, are in the process of obtaining tertiary education and are, therefore, considered as the future trendsetters, most likely to be employed and therefore have the disposable income to purchase the latest technology (Bevan-Dye & Surujlal, 2011) and are argued to be the drivers behind the diffusion of wearable technology in the country. While the Generation Y cohort has been documented in terms of traits and their behavioural inclinations, there is not much literature discussing the characteristic differences between students from the three types of HEIs. Therefore, this study, while having a specific research objective, also contributes to delineating differences in traits among these student groups.

Against this background, this study targeted Generation Y students to understand better their attitudes, behaviour and perceptions of WAT devices. Essential factors to consider that significantly differentiate students registered at the 26 South African Public Universities (HEIs) (South African Market Insights, 2023) from one another in terms of their buying behaviour of technological developments such as WAT devices, include various social factors (family, reference groups, role and status), cultural factors (culture, subculture and social class), personal factors (age, income, occupation, lifestyle, personality), psychological factors (motivation, perception, learning, beliefs and attitude) and economic factors (personal income, family income, income expectations, liquid assets, government policy) (Ramya & Mohammed Ali, 2016).

No prior studies are reporting what the effects of these factors, in sum, are on Generation Y students' buying behaviour, precisely their attitude towards and usage intention of WATs (a luxury product), nor how students from other universities differ in their perceptions of these devices. As such, this study serves as a departure point and aimed to investigate specific perception-based variables linked to the factors affecting buying behaviour, as mentioned above and how students from three types of universities in South Africa differ in their perceptions. That is, this study

investigated whether students from three different types of universities differ in their perception of WAT devices based on social factors, specific personal (age and lifestyle) and cultural (social class) factors, psychological factors (perceptions, beliefs and attitude) and economic factors (income).

Knowing how students differ in their perceptions, attitudes and usage intentions, WAT brands, resellers and marketing practitioners will be in a unique position and gain a competitive advantage when adapting their targeting and promotional efforts to either strengthen an existing market or attempt to gain new student markets.

2. THEORETICAL FRAMEWORK

Two technology adoption models, namely the theory of reasoned action (TRA) and the technology acceptance model (TAM), are well-established in the literature and provide a foundational understanding of consumer behaviour. Fishbein and Ajzen (1975) developed the TRA model, considered one of the earliest technology adoption theories. This theory, in short, suggests that consumers' attitude and subjective norms directly influence their behavioural intent. Similarly, Davis (1986) used this foundation. He developed the TAM, which suggests that consumers' perceived ease of use and usefulness influences their attitude and, therefore, their subsequent intention to use a particular technology. These five factors form the foundation of this investigation.

2.1 Behavioural intention

Behavioural intention refers to “a consumer's inclination to act in a specific way” (Ajzen, 1991), which precedes and leads to a specific behavioural outcome. In the context of this study, behavioural intention was investigated in terms of students' WATs usage intention. Given that Generation Y students aged 18–24 are drivers of wearable technology, paired with their health-conscious lifestyle and related behaviour, therefore likely future users of WAT devices, it is suggested that, due to the various factors that follow, students registered at the three different HEIs will have a varying degree of WAT usage intention.

2.2 Attitude

The first suggested (psychological) factor, as per the technology adoption models (TRA and TAM), is consumer attitude. Attitude is “the positive or negative feelings or predisposition a person has about an object, individual or situation, based on prior knowledge and beliefs” (Kurniawan *et al.*, 2019). Consequently, this study defined attitude towards WAT devices as “an individual's overall perception, positive or negative, towards the use of wearable activity trackers”. While previous research established attitude as a significant predictor of adoption behaviour of, specifically, smartwatches (Choi & Kim, 2016; Kim & Shin, 2015; Wu *et al.*, 2016), wearable healthcare devices (Park *et al.*, 2016), and wearable fitness trackers (Zhu *et al.*, 2017), it is not clear whether students from the different universities in South Africa share the same attitudes towards WAT devices.

2.3 Subjective norms

The second (social) factor to consider is subjective norms. According to Fishbein and Ajzen (1975), subjective norms are reflected by “the individual’s opinion that most people valuable to them, such as friends, family members, co-workers, or peers, think they should perform the particular behaviour”. WATs and other wearables have become normative, most likely because using these devices fosters social interaction and makes it easy for users to post and share their data with their social network, such as close friends and family (Nield, 2017). As such, it can be argued that as soon as a few group members start using these devices, they serve as the referent influence on other users’ behaviour. This notion is supported by recent studies on various technologies (Blut *et al.*, 2016; Gao & Bai, 2014; Kim *et al.*, 2013). The question is whether this is the case for all students or only those from specific universities.

2.4 Perceived ease of use

Davis (1989) defined perceived ease of use (PEOU) as the “degree to which an individual perceives that using a specific system will be free of physical and mental effort”. In this study, PEOU referred to “the degree of difficulty associated with using WATs to learn and recall how to measure daily activity, and the extent to which this process is free of physical and mental effort.” Research supports the importance of PEOU about technology attitude and usage intention (Azharshaheen *et al.*, 2020; Chuah, 2016; Kim & Shin, 2015; Gao & Bai, 2014; Park *et al.*, 2016; Wu *et al.*, 2016). Since students are generally tech-savvy, finding most technology easy to use, it is necessary to confirm if this is the case for all students across the campuses.

2.5 Perceived usefulness

Among the foremost of the many health and fitness benefits obtained from using WAT devices are being a tool users can use to boost their inner motivation and drive needed to sustain a healthy exercise regimen (Donnachie & Hunt, 2017), as well as to promote physical activity and healthy eating habits, these devices are without a doubt helpful to consumers’ daily lives. For this study, and in line with the definition proposed by Davis (1989), this study defined perceived usefulness (PU) as “the degree to which individuals believe that using a wearable activity tracking device will improve and increase their quality and level of physical activity.” In line with the findings of previous studies (Azharshaheen *et al.*, 2020; Chuah, 2016; Gao & Bai, 2014; Park *et al.*, 2016), this current study suggests that students will perceive WAT devices as applicable but aims to determine if this view differs between students from the different HEIs.

While the variables mentioned above suggested to influence students’ WAT usage intentions (behavioural intention) are driven by personal factors (age — Generation Y and lifestyle — health-conscious) and cultural factors (social class – upper-, middle- and lower-class students) as linked to psychological factors (attitude, PEOU and usefulness), a social factor (subjective norm — family influence), other variables need to be considered. These include a) students’ level of technological innovativeness compared to referent groups (personal and social), b) perception of the importance of and exposure to popular and repeatable brand names (psychological and cultural), c) students’ view of their social image (social factor — referent group, role and standing) and d) perceived affordability as linked to the perceived cost of WAT devices possibly linked to

social class standing (economic factors — personal and family income, savings and credit and social class).

2.6 Innovativeness

The diffusion process suggests that early adopters are generally regarded as innovative consumers, likely to adopt new technologies before most others. This study investigated students' design-specific innovativeness (DSI) as a critical determinant for adopting new products (Goldsmith & Hofacker, 1991). These latter authors who coined the concept argue that DSI mediates the link between global innovativeness and new product purchases. This current study investigated whether Generation Y students display innovativeness about WAT devices considered new technology during data collection. However, since one of the universities is situated in a major test market, namely mid-Gauteng, and therefore exposed to technologies a lot sooner than in outlying areas, the question was whether levels of innovativeness among students differ accordingly.

2.7 Brand name

Garmin, Polar, Fitbit, Suunto and Wahoo, with Samsung, Apple and Huawei, are the most recognised fitness tracker and smartwatch brands, respectively. Dandu (2015) asserts that a brand name and reputation are vital branding elements. This is because consumers create a subjective opinion of brands based on media, feedback from referent groups and mainly based on personal experience. Another consideration of technology brands is whether these brands produce reliable products. This study would relate to whether WAT brands manufacture long-lasting devices that produce accurate metrics. Brand names are often used to express oneself and outward status within a specific culture and brand names are believed to increase one's self-image and social identification (Yang *et al.*, 2016). With another study confirming the importance of a reputable and reliable brand (Gao & Bai, 2014), this study argues the same. However, it wants to establish that brand name is a universal consideration and does not differ regardless of where students receive their education.

2.8 Social image

Besides brand name being a tool fostering social expression, social image is a significant social factor impacting consumers' behaviour. In this study, as supported by literature (Lin & Bhattacharjee, 2010), social image relates to the degree to which a student believes that using a WATs will improve his or her standing within their referent groups and that having these devices promotes their social role and standing. While prior research confirms the significant relationship between social image and consumers' attitude towards and usage intention of new technology (Yang *et al.*, 2016; Lin & Bhattacharjee, 2010), this study aimed to establish whether owning WAT devices promotes students' social standing from the different HEIs equally.

2.9 Perceived cost

According to Phonthanakitithaworn *et al.* (2015), perceived cost refers to “the extent to which an individual believes that using a particular technology will cost money.” Of course, as with most technological inventions, WAT devices come at a price tag; this study emphasises students' perception of WAT devices as being too expensive, providing value for money or just an expensive gimmick. Previous research (Kim & Shin, 2015) revealed that PC negatively affected Korean students' intention to use wearable technology. With many South African students relying on

government funding to complete their tertiary education, therefore leaving them being price-sensitive with less room for buying luxury goods, it is very likely that they will have the same view of the cost associated with WAT devices. However, to what extent does this differ when as many as 47 percent of students aged 20–24 come from a high-income background?

In sum, this study's primary objective included determining whether and to what extent students from three different types of HEIs in South Africa differ in their perceptions of WATs, precisely their usage intention, attitude, subjective norms, PEOU, PU, innovativeness, brand name, social image, and perceived cost. Furthermore, this study simultaneously determined the characteristic differences among students who attend the three types of HEIs, subsequently revealing that not all Generation Y students have the same behavioural perceptions or inclinations.

3. METHODOLOGY

This study gathered quantitative data using a descriptive research design and cross-sectional approach.

3.1 Study context and sample

Since Generation Y consumers dominate the wearables market in South Africa (Statista, 2020; 2021), with the student portion presenting as the best segment to target for various reasons, the latter was the focus of this study. Consequently, reaching these students to collect data necessitated identifying an appropriate sampling frame, which comprised 26 registered public universities in South Africa (South African Market Insights, 2023). A judgement sample of three public universities in the country's Gauteng province was selected, including one traditional, one university of technology and one comprehensive university, to ensure representation from the three types of universities in the country. Around the time of data collection for this study, there was a total of 131 405 students registered between the three universities included in this study: 63 395 from the traditional university, 48 769 from the comprehensive university and 19 241 from the university of technology (South African Market Insights, 2023). Following a non-probability sampling method, the researcher followed a convenience sampling approach and targeted 600 undergraduate Generation Y students from both genders between the ages of 18 and 24 years. Only respondents who adhered to these inclusion criteria were included and any questionnaires that fell outside these boundaries were removed from the dataset.

3.2 Research instrument

A self-administered survey questionnaire consisting of four sections was used to collect the data. The first section contained the cover letter outlining the nature and purpose of the research. It concluded with a dedicated information block emphasising that the questionnaire was to be completed voluntarily, that they could withdraw from its completion at any point and then acknowledge the informed consent statement. The second section or Section A, obtained demographic information. The third section, Section B, gathered background information related to WAT device background and interest in tracking daily activity. The fourth section, Section C, required respondents to indicate their degree of agreement with statements ranging from 1=strongly disagree to 6=strongly agree. The scales were obtained and adapted from previously validated research. These scales are as follows: attitude (4 items), usage intention (3

items) and perceived cost (4 items) were adapted from Kim and Shin (2015); PEOU (3 items) from Nor and Pearson (2008), PU (5 items), social image (4 items) and brand name (3 items) from Yang *et al.* (2016); subjective norms (3 items) from Lee (2009); and innovativeness (six items) from (Goldsmith & Hofacker, 1991).

3.3 Data collection and analysis

A mall-intercept type approach was used in this study to collect the data whereby the researcher and fieldworkers approached students on the three university campuses to complete the questionnaire voluntarily. The research team collected the 600 distributed questionnaires immediately after completion. The researcher discarded the questionnaires containing responses contrary to the inclusion and eligibility criteria during the data-capturing process. Data analysis procedures, using IBM SPSS Statistics 28.0, internal consistency reliability and the nomological validity, descriptive statistics (frequencies), parametric one-way ANOVA analysis and a non-parametric test, namely the Kruskal-Wallis H test. The significance level was set at the conventional five percent level for the two latter significance tests.

4. FINDINGS AND DISCUSSION

Of the 600 questionnaires distributed in the main survey, 480 were returned, but only 462 were usable after the data were cleaned, resulting in a 77 percent response rate. The internal consistency reliability and the nomological validity of the data were confirmed by computing the Cronbach’s alpha values. The 35-item scale delivered an overall alpha value of 0.892 with an average inter-item correlation value of 0.191, with individual factors yielding values of $r = 0.755$ to 0.946. The reliability and validity of the scales can be confirmed since these values exceed the acceptable $r > 0.7$ level (Malhotra, 2020). The findings section departs by reporting on the sample profile in Table 1.

Table 1: South African Generation Y student sample profile

| Gender | <i>f</i> | % | Institution | <i>f</i> | % | Province of origin | <i>f</i> | % |
|------------|----------|------|---------------|----------|------|--------------------|----------|------|
| Male | 184 | 39.8 | Traditional | 173 | 37.4 | Eastern Cape | 18 | 3.9 |
| Female | 276 | 59.7 | Technology | 174 | 37.7 | Free State | 30 | 6.5 |
| Missing | 2 | 0.5 | Comprehensive | 115 | 24.9 | Gauteng | 239 | 51.7 |
| Age | | | Race | | | KwaZulu- Natal | 20 | 4.3 |
| 18 | 95 | 20.6 | Black/African | 410 | 88.7 | Limpopo | 84 | 18.2 |
| 19 | 128 | 27.7 | Coloured | 16 | 3.5 | Mpumalanga | 36 | 7.8 |
| 20 | 85 | 18.4 | Indian/Asian | 9 | 1.9 | Northern Cape | 0 | 0 |
| 21 | 78 | 16.9 | White | 25 | 5.4 | North West | 30 | 6.5 |
| 22 | 41 | 8.9 | Missing | 2 | 0.5 | Western Cape | 3 | 0.6 |
| 23 | 23 | 5.0 | | | | Missing | 2 | 0.5 |
| 24 | 12 | 2.6 | | | | | | |

Without reporting demographic data from the independent HEIs and instead showing the complete picture, this study’s sample comprised more female (59.7%) than male (39.8%) undergraduate students, with the most representation from black/African students. Students aged 18 to 21 dominated this sample, specifically 18- and 19-year-olds, suggesting there were more responses from first- and second-year students. Despite campuses in Gauteng being targeted, the sample represented all but one province, namely the Northern Cape. This study focused on students’ distribution of each of the three types of HEIs. The distribution of students registered at the

traditional university (37.4%) and the university of technology (37.7%) were similar, yet the comprehensive university delivered far fewer responses. This falls slightly outside the registration numbers noted for each campus and the possibility of skewed results should not be disregarded.

Based on the campus distribution and aligned with the purpose of this study, it is essential to contextualise Generation Y students’ WAT interest, specifically the responses provided by students from the three campuses, independently. As such, Table 2 outlines the responses per campus, based on their WAT and smartphone ownership, whether they had an activity tracker application installed on their smartphones or were interested in tracking their daily activity.

Table 2: South African Generation Y student WAT background per campus

| | | Trad ^a | | Uni-tech ^b | | Comp ^c | | Total ^d | |
|-----------------------------------|---------|-------------------|------|-----------------------|------|-------------------|------|--------------------|------|
| | | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % |
| WAT Ownership | Yes | 6 | 3.5 | 7 | 4.0 | 14 | 12.2 | 27 | 5.8 |
| | No | 164 | 94.8 | 167 | 96.0 | 101 | 87.8 | 432 | 93.5 |
| | Missing | 3 | 1.7 | 0 | 0 | 0 | 0 | 3 | 0.7 |
| Activity tracking interest | Yes | 130 | 75.1 | 142 | 81.6 | 85 | 73.9 | 357 | 77.3 |
| | No | 39 | 22.5 | 30 | 17.2 | 30 | 26.1 | 99 | 21.4 |
| | Missing | 4 | 2.3 | 2 | 1.1 | 0 | 0 | 6 | 1.3 |
| Smartphone ownership | Yes | 161 | 93.1 | 163 | 93.7 | 112 | 97.4 | 436 | 94.4 |
| | No | 11 | 6.4 | 11 | 6.3 | 3 | 2.6 | 25 | 5.4 |
| | Missing | 1 | 0.6 | 0 | 0 | 0 | 0 | 1 | 0.2 |
| Activity tracker app | Yes | 56 | 37.4 | 27 | 15.5 | 36 | 31.3 | 119 | 25.8 |
| | No | 116 | 67.1 | 147 | 84.5 | 78 | 67.8 | 341 | 73.8 |
| | Missing | 1 | 0.6 | 0 | 0 | 1 | 0.9 | 2 | 0.4 |

^a Traditional university n=173

^b University of technology n=174

^c Comprehensive university n=115

^d Total frequencies are based on the total sample where n=480

10. A total of 27, or 5.8 percent of this student sample, owned a WAT device at the time of data collection, which is expected given the novelty of the technology at the time. Though, as expected, students from the comprehensive university (situated at the centre of the test market) contained the highest number of ownerships at 52 percent of the total (14 out of 27). Even though there were fewer responses from this institution overall, they still had the highest number of WAT device owners. Regarding activity tracking interest, 357 students from the university of technology showed a higher interest in tracking their daily activity (142 or 40% of 357). In combination, most students from the three HEIs owned a smartphone (94.4%). Possibly linked to the concept of tracking health-related metrics being relatively novel at the time of this study, it is no surprise that only 25.8 percent of the sample used a relevant application, with most from the traditional HEI (47%: 56 of 119).

With the visual differences regarding WAT background for each type of university established, parametric one-way ANOVA was performed to determine whether statistically significant differences were recorded between the students from the three campuses based on the mean values reported for the nine stated variables, as shown in Table 3.

Table 3: One-way ANOVA analysis results

| Variables | | Σ Squares | df | Mean Square | F-ratio | Sig. |
|-----------------------|----------------|------------------|-----|-------------|---------|-------|
| Usage intention | Between groups | 13.415 | 2 | 6.708 | 5.759 | 0.003 |
| | Within groups | 534.624 | 459 | 1.165 | | |
| | Total | 548.039 | 261 | | | |
| Attitude | Between groups | 2.703 | 2 | 1.351 | 2.073 | 0.127 |
| | Within groups | 299.229 | 459 | 0.652 | | |
| | Total | 301.932 | 261 | | | |
| Subjective norms | Between groups | 63.128 | 2 | 31.564 | 14.824 | 0.000 |
| | Within groups | 977.322 | 459 | 2.129 | | |
| | Total | 1040.450 | 261 | | | |
| Perceived ease of use | Between groups | 0.399 | 2 | 0.199 | 0.254 | 0.776 |
| | Within groups | 359.984 | 459 | 0.784 | | |
| | Total | 360.383 | 261 | | | |
| Perceived usefulness | Between groups | 5.216 | 2 | 2.608 | 3.598 | 0.028 |
| | Within groups | 332.747 | 459 | 0.725 | | |
| | Total | 337.963 | 261 | | | |
| Innovativeness | Between groups | 22.687 | 2 | 11.344 | 9.162 | 0.000 |
| | Within groups | 568.295 | 459 | 1.238 | | |
| | Total | 590.982 | 261 | | | |
| Brand name | Between groups | 0.794 | 2 | 0.397 | 0.356 | 0.701 |
| | Within groups | 511.394 | 459 | 1.114 | | |
| | Total | 512.188 | 261 | | | |
| Social image | Between groups | 19.006 | 2 | 9.503 | 6.882 | 0.001 |
| | Within groups | 633.836 | 459 | 1.381 | | |
| | Total | 652.842 | 261 | | | |
| Perceived cost | Between groups | 26.741 | 2 | 13.371 | 11.040 | 0.000 |
| | Within groups | 555.870 | 459 | 1.211 | | |
| | Total | 382.611 | 261 | | | |

p<0.05

While Table 3 confirms the statistical significance of 6 of the 9 variables based on the mean difference (usage intention, subjective norms, PU, Innovativeness, Social image, perceived cost), to make the results applicable to WAT brands and resellers, it is essential to reveal the significance level for and between each HEI. Therefore, a Tuckey HSD post-hoc test was executed to reveal specific statistically significant differences between the three campuses, as shown in Table 4 on the left.

Once again, and in line with the results from Table 3, Table 4 shows that there were no statistically significant differences between students from the independent campuses in terms of their attitude towards WAT devices, the perceived ease of using these devices as well as the importance of a reputable brand name. However, there were statistically significant differences recorded, in most instances, between the university of technology and the traditional university students for all other variables. That is, significant differences are recorded for social image, PU, innovativeness, subjective norms, usage intention and perceived cost between the university of technology and the traditional university. Furthermore, the same differences were recorded between the university of technology and comprehensive university regarding their usage intention and perceived cost only. Lastly, differences were recorded between the traditional and comprehensive technology regarding

subjective norms and perceived cost. Note that the mean difference recorded: a positive value suggests that the HEI on the left recorded a higher mean value, whereas a negative value suggests that the HEI on the right recorded a higher mean value and that this does not reflect the polarity of the overall mean value as with a t-test.

Table 4: Tuckey’s HDS and Kruskal-Wallis H test results

| Variables | HEIs | Tuckey’s HSD | | Kruskal-Wallis H | | |
|-----------------------|----------------|--------------|-------|----------------------------------|--------------|--------------|
| | | Mean diff. | Sig. | Std. Test Statistic ^a | Sig. | Adj. Sig. |
| Usage intention | Trad→ Uni-tech | -0.37 | 0.004 | -45.458 | 0.001 | 0.004 |
| | Uni-tech→ Comp | 0.32 | 0.038 | -41.251 | 0.009 | 0.027 |
| | Comp→ Trad | 0.51 | 0.918 | 4.207 | 0.790 | 1.000 |
| Attitude | Trad→ Uni-tech | -0.12 | 0.377 | -25.951 | 0.068 | 0.205 |
| | Uni-tech→ Comp | 0.19 | 0.120 | -30.941 | 0.052 | 0.157 |
| | Comp→ Trad | -0.08 | 0.716 | 4.990 | 0.754 | 1.000 |
| Subjective norms | Trad→ Uni-tech | -0.75 | 0.000 | -66.455 | 0.000 | 0.000 |
| | Uni-tech→ Comp | -0.04 | 0.975 | -2.295 | 0.886 | 1.000 |
| | Comp→ Trad | 0.79 | 0.000 | 68.750 | 0.000 | 0.000 |
| Perceived ease of use | Trad→ Uni-tech | 0.01 | 0.994 | -0.949 | 0.947 | 1.000 |
| | Uni-tech→ Comp | 0.06 | 0.829 | -6.404 | 0.688 | 1.000 |
| | Comp→ Trad | -0.72 | 0.776 | 7.353 | 0.645 | 1.000 |
| Perceived usefulness | Trad→ Uni-tech | -0.24 | 0.021 | -44.856 | 0.002 | 0.005 |
| | Uni-tech→ Comp | 0.11 | 0.527 | -16.494 | 0.303 | 0.908 |
| | Comp→ Trad | 0.13 | 0.389 | 28.362 | 0.77 | 0.230 |
| Innovativeness | Trad→ Uni-tech | -0.51 | 0.000 | -59.947 | 0.000 | 0.000 |
| | Uni-tech→ Comp | 0.20 | 0.309 | -22.663 | 0.157 | 0.472 |
| | Comp→ Trad | 0.31 | 0.052 | 37.284 | 0.020 | 0.060 |
| Brand name | Trad→ Uni-tech | -0.05 | 0.884 | -4.906 | 0.730 | 1.000 |
| | Uni-tech→ Comp | -0.05 | 0.910 | -8.674 | 0.585 | 1.000 |
| | Comp→ Trad | 0.11 | 0.680 | 13.580 | 0.394 | 1.000 |
| Social image | Trad→ Uni-tech | -0.47 | 0.000 | -48.896 | 0.000 | 0.002 |
| | Uni-tech→ Comp | 0.23 | 0.245 | -25.136 | 0.116 | 0.349 |
| | Comp→ Trad | 0.24 | 0.203 | 23.760 | 0.138 | 0.415 |
| Perceived cost | Trad→ Uni-tech | 0.30 | 0.032 | -36.622 | 0.010 | 0.031 |
| | Uni-tech→ Comp | -0.62 | 0.000 | -66.965 | 0.000 | 0.000 |
| | Comp→ Trad | 0.32 | 0.042 | 30.343 | 0.058 | 0.175 |

p<0.05

^a Std. Test Statistic = Test Statistic / Std. Error

Although, given the unequal representation from the three universities (Trad-173; U-Tech-174; Comp-115) paired with the differences in the variances recorded for the nine variables for the three universities in terms of the data distribution and median values, a non-parametric test, namely the Kruskal-Wallis H test (Leard Statistics, 2023) was executed to correlate and subsequently affirm the results from the ANOVA analysis and the Tuckey HSD post-hoc test. When executing the Kruskal-Wallis H test, an important consideration is the automatically adjusted significance level calculated using the Bonferroni correction for multiple simultaneous tests. According to Armstrong (2014), the Bonferroni correction is crucial as it considers many tests being carried out without preplanned hypotheses, which applies to this study, and, more importantly, it avoids a

Type 1 error. A Type 1 error or false-positive ensues when the researcher rejects a null hypothesis that is, in fact, a true reflection of the population (Banerjee *et al.*, 2009).

The findings from the Kruskal-Wallis H test, based on mean ranks, align with the results reported for the ANOVA analysis and the Tuckey HSD post-hoc test, except for the difference reported between the traditional and comprehensive university students' perceived cost of WATs [ANOVA: $p=0.042$; $p<0.05$; KWHT: $p=0.175$; $p>0.05$]. The Kruskal-Wallis H test based on median values supports this finding [$p=0.761$; $p>0.05$].

Based on this affirmation, with the exclusion of the singular contradiction, the following conclusions can be drawn, specifically for the six variables with reported significant differences between groups; this excludes attitude, PEOU, and brand name — with reported with insignificant mean differences and non-significant p-values. For the other findings listed below, the mean differences were retrieved from the one-way ANOVA analysis, whereas the significance (adjusted) or p-values from the Kruskal-Wallis H test — as outlined in Table 4.

In comparison to students from the traditional university, university of technology students:

- are far more concerned with upholding a social image and forming part of peer groups and believe using a WAT device will help them fit in [mean difference 0.47; adj. significance $p=0.002$; $p<0.05$].
- perceive WAT devices provide useful information about and improve their physical activity quality [mean difference 0.24; adj. significance $p=0.005$; $p<0.05$].
- are far more innovative and among the first individuals in their peer groups to own new technology, like WAT devices [mean difference 0.51; adj. significance $p=0.000$; $p<0.05$].
- consider WAT devices as social norms and that important reference groups in their lives think they should use WAT devices [mean difference 0.75; adj. significance $p=0.000$; $p<0.05$].
- are likelier to use and purchase WAT devices [mean difference 0.37; adj. significance $p=0.004$; $p<0.05$].
- are less concerned with the price they must pay to obtain a WAT device since they see these devices as offering enough value for the price paid and do not consider these devices as an expensive gimmick [mean difference -0.30 *negative construct where a lower mean is preferred; adj. significance $p=0.031$; $p<0.05$].

In comparison to students from the comprehensive university, university of technology students:

- are likelier to use and purchase WAT devices [mean difference 0.31; adj. significance $p=0.027$; $p<0.05$].
- are less concerned with the price they must pay to obtain a WAT device since they see these devices as offering enough value for the price paid and do not consider these devices as an expensive gimmick [mean difference -0.62 *negative construct where a lower mean is preferred; adj. significance $p=0.000$; $p<0.05$].

In comparison to traditional university students, students from the comprehensive university:

- consider WAT devices as social norms and that important reference groups in their lives think they should use WAT devices [mean difference 0.24 adj. significance $p=0.000$; $p<0.05$].
- was conclusively proven, contradictory to the parametric ANOVA analysis, that they do not have perceptual differences regarding their perceived cost of WATs.

Overall, it seems that traditional university students, compared to the other groups, do not perceive that WAT devices will add to their social standing nor that these devices are a societal norm, are not useful enough in monitoring their physical activity levels, are not very innovative or concerned with having the latest technology when released, while being more price sensitive. While there are differences in their WAT usage intention, the mean value ($X=4.66$), paired with their positive attitude ($X=4.88$), still suggests that they are likely to use these devices in future, perhaps needing a bit more convincing, the onus being on WAT device brands, resellers, and marketing practitioners.

Since this study is the first to report wearable activity tracker-related perceptual differences between students from the three types of universities, which is unique to the South African context, supporting or contradicting these findings comes with significant challenges. In referencing prior studies, one that investigated and established significant differences between age groups within the Generation Y student cohort in terms of their attitude towards, PEOU, subjective norms and perceived behavioural control of mobile banking (Van Deventer, 2015) and a study that established some significant differences concerning black Generation Y students' living arrangements and monthly grocery expenses on their buying behaviour (Marais, 2013) and another study that established significant gender differences of the factors influencing Generation Y students' WATs usage behaviour (Muller & Sharp, 2023), it is likely that there would be significant differences between the students from the three HEIs.

Although this leads to the opportunity to conduct qualitative, in-depth research to uncover the possible reasons for these findings. Furthermore, since this study simultaneously determined the presence of characteristic differences among students who attend the three types of HEIs, subsequently revealing that not all Generation Y students have the same behavioural perceptions or inclinations, researchers are tasked with expanding this research perspective in other areas of consumer behaviour.

5. CONCLUSION

This study set out to and subsequently revealed that students registered at different types of universities in South Africa do, in fact, have perceptual differences relating to WATs. Consequently, with the results being two-fold, it is also now evident that all South African students are not equal and characteristic differences are present among students from the three HEI types. Most significantly, WAT device brands, resellers and marketing practitioners should focus their marketing activities and targeting efforts on students registered at universities of technology since these students are more likely to purchase and use these devices. Besides, these students are, compared to students from other HEIs, more concerned with upholding a social image and standing among their peer groups and the emphasis can be placed on how WAT devices will help them achieve this. Further, capitalising on these students' level of innovativeness and tendency to adopt

technology sooner than students from other HEIs, WAT brands should target these students when they release new devices to ensure sooner diffusion among peers. These efforts will likely be successful when aimed at these students since they already believe WAT devices are a social norm and are more than willing to spend their disposable income on the latest technology, specifically an activity tracker that can help them monitor their daily acidity and health metrics. However, WAT brands should also attempt to change students from the other campuses' perceptions of the devices they manufacture. To gain a deeper view of these differing views, these stakeholders must conduct in-depth research using a qualitative approach and collect data from a larger sample.

REFERENCES

- Ajzen, I. (1991). 'The theory of planned behavior'. *Organizational Behavior and Human Decision Processes*, Vol. 50 No.2, pp.179–211.
- Armstrong, R.A. (2014). When to use the Bonferroni correction. *Ophthalmic Physiol Opt.* 34(5):502–8. doi: 10.1111/opo.12131.
- Azharshaheen, S. S., Fernandes, A., Pol, N., Parappagoudar, S.K., & Mallik, A. (2020). Intention to use the wearable technology and factors influencing the adoption. *Journal of Critical Reviews*, 7(1), 1095–1100. <http://dx.doi.org/10.31838/jcr.07.01.182>.
- Banerjee, A., Chitnis, U.B., Jadhav, S.L., Bhawalkar, J.S., & Chaudhury, S. (2009). Hypothesis testing, type I and type II errors. *Ind Psychiatry J.* 18(2):127-31. Doi: 10.4103/0972-6748.62274.
- Beckham, J. (2012). Fitness Trackers Use Psychology to Motivate Couch Potatoes. *Wired*. Retrieved November 10, 2016, from <https://www.wired.com/2012/04/fitness-tracker-psychology/>.
- Bevan-Dye, A.L. & Surujlal, J. (2011). Attitudes towards materialism in sport and materialism tendencies amongst Black Generation Y students. *African Journal for Physical, Health Education, Recreation and Dance, supplement*, 17(4), 43–55.
- Blut, M., Wang, C. & Schoefer, K. (2016). 'Factors influencing the acceptance of self-service technologies: a meta-analysis', *Journal of Service Research*, Vol. 19 No. 4, pp.396–416.
- Caddy, B. (2020). *How to use your fitness tracker (or smartwatch) to actually get fit*. Retrieved from <https://www.wareable.com/fitness-trackers/how-to-set-your-fitness-tracking-goals-7837>
- Choi, J. & Kim, S. (2016). 'Is the smartwatch an IT product or a fashion product? A study on factors affecting the intention to use smartwatches', *Computers in Human Behavior*, Vol. 63, pp.777–786.
- Chuah, S.H.W., Rauschnabel, P.A., Krey, N., Nguyen, B., Ramayah, T., & Lade, S. (2016). Wearable technologies: The role of usefulness and visibility in smartwatch adoption. *Computers in Human Behavior*, 65, 276–284. <https://doi.org/10.1016/j.chb.2016.07.047>.
- Dandu, R. (2015). *What Is Branding and Why Is It Important for Your Business?* Retrieved from <https://www.brandingmag.com/2015/10/14/what-is-branding-and-why-is-it-important-for-your-business/>.
- Davis, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results*. (Doctoral dissertation), Sloan School of Management, Massachusetts Institute of Technology, Boston.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>.

-
- Donnachie, C., & Hunt, K. (2017). How fitness trackers help motivate us to keep in shape. *The Conversation*. Retrieved September 8, 2018, from <https://theconversation.com/how-fitness-trackers-help-motivate-us-to-keep-in-shape-78154>.
- Ericsson Consumerlab. (2016). Wearable technology and the internet of things: Consumer views on wearables beyond health and wellness. Retrieved from <https://www.ericsson.com/4a2d0e/assets/local/reports-papers/consumerlab/reports/2016/wearable-technology-and-the-internet-of-things-ericsson-consumerlab-2016.pdf>
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitudes, intention and behavior: an introduction to theory and research*. Philippines: Addison-Wesley.
- Fortune Business Insights (2020). Fitness tracker market 2021-2028. Retrieved July 26, 2021, from <https://www.fortunebusinessinsights.com/fitness-tracker-market-103358>.
- Gao, H.L. (2020). ‘Understanding the attitude of antecedents and consequences towards e-learning: an integration model of technology acceptance model and theory of planned behavior’, *International Journal of Liberal Arts and Social Science*, Vol. 8 No. 3, pp.55–71.
- Goldsmith, R.E., & Hofacker, C.E. (1991). Measuring consumer innovativeness, *J. Acad. Mark. Sci.*, 19:209-221.
- Kim, E., Ham, S., Yang, I.S. & Choi, J.G. (2013). ‘The roles of attitude, subjective norm, and perceived behavioral control in the formation of consumers’ behavioral intentions to read menu labels in the restaurant industry’, *International Journal of Hospitality Management*, Vol. 35, pp.203-213.
- Kim, K.J., & Shin, D.-H. (2015). An acceptance model for smart watches, *Internet Research*, 25(4), 527-541. <https://doi.org/10.1108/IntR-05-2014-0126>.
- Kurniawan, D.A., Astalini, A., Darmaji, D. & Melsayanti, R. (2019). ‘Students’ attitude towards natural sciences’, *International Journal of Evaluation and Research in Education*, Vol. 8 No. 3, pp.455–460.
- Leard statistics. (2023). Kruskal-Wallis H Test using SPSS Statistics. Retrieved from <https://statistics.laerd.com/spss-tutorials/kruskal-wallis-h-test-using-spss-statistics.php>
- Lee, M.-C. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 8: pp. 130–141.
- Lin, C.-P. & Bhattacharjee, A. (2010). Extending technology usage models to interactive hedonic technologies: a theoretical model and empirical test. *Information Systems Journal*, 20: pp. 163–181.
- Malhotra, N.K. (2020). *Marketing research: an applied orientation*. 7th ed. Harlow, UK: Pearson Education.
- Marais, H.T. (2013). Black Generation Y Students’ attitudes towards sales promotion techniques on low involvement products. Dissertation, North-West University, Vanderbijlpark, South Africa.
- Markert, J. (2004). Demographics of age: Generational and cohort confusion. *Journal of Current Issues & Research in Advertising*, 26(2), 11–25. <https://doi.org/10.1080/10641734.2004.10505161>.
- Muller, C. & Sharp, K.-L. (2023). A gender comparison of the factors influencing Generation Y student consumers’ wearable activity tracker usage intentions. Paper submitted to the Global
-

-
- Business and Technology Association, Embracing the Positive Impact of Disruption in the Field of Futurism, p. 12-14 July 2023, Prague Marriott Hotel, Prague, Czech Republic.
- Muller, C. (2022). Generation Y students' wearable activity-tracker usage intentions: model validation, Proceedings of Social Sciences International Research Conference (SSIRC), 19-21 Oct. 2022, Mauritius. pp. 257–268.
- Nield, D. (2017). How to buy a fitness tracker: everything you need to consider. Retrieved, August 17, 2018, from <https://www.wareable.com/fitness-trackers/how-to-buy-a-fitness-tracker>.
- Nor, K.M., & Pearson, J.M. (2008). An exploratory study into the adoption of internet banking in a developing country: Malaysia. *Journal of Internet Commerce*, 7(1): 29–73. <https://doi.org/10.1080/15332860802004162>.
- P&S Market Research (2018). Wearable Fitness Trackers Market to Reach \$48.2 Billion by 2023. *Globe News Wire*. Retrieved July 12, 2019, from <https://www.globenewswire.com/news-release/2018/03/28/1454453/0/en/Wearable-Fitness-Trackers-Market-to-Reach-48-2-Billion-by-2023-P-S-Market-Research.html>.
- Park, E., Kim, K.J., & Kwon, S.J. (2016). Understanding the emergence of wearable devices as next-generation tools for health communication. *Information Technology & People*, 29(4), 717–732. <https://doi.org/10.1108/itp-04-2015-0096>.
- Phonthanakitithaworn, C., Sellitto, C., & Fong, M. W. L. (2015). A study of mobile payment (M-Payment) services adoption in Thailand. *Encyclopedia of Information Science and Technology* (3rd ed.) pp. 731–741. <https://doi.org/10.4018/978-1-4666-5888-2.ch070>.
- Ramya, N. & Mohammed Ali, S.A. (2016). Factors affecting consumer buying behavior. *International Journal of Applied Research*, 2(10): 76–80.
- Rettner, R. (2014). How well do fitness trackers monitor heart rate? Retrieved, November 16, 2016, from <http://www.livescience.com/44170-fitness-tracker-heart-rate-monitors.html>.
- South African Market Insights. (2023). South Africa's education statistics. Retrieved from <http://www.southafricanmi.com/education-statistics.html>.
- Statista (2020) Wearables: South Africa. Retrieved from <https://www.statista.com/outlook/319/112/wearables/south-africa>.
- Statista (2021). *Wearables. South Africa*. Retrieved from <https://www.statista.com/outlook/dmo/eservices/fitness/wearables/south-africa>.
- Van Deventer, M. (2015). Generation Y students' perceived utility and trust in mobile banking. Dissertation, North-West University, Vanderbijlpark, South Africa.
- Wu, L-H., Wu, L-C. & Chang, S-C. (2016) 'Exploring consumers' intention to accept smartwatch', *Computers in Human Behavior*, Vol. 64, pp.383–392.
- Yang, H., Yu, J., Zo, H. & Choi, M. (2016). User acceptance of wearable devices: an extended perspective of perceived value. *Telematics and Informatics*, 33, 256-269.
- Zhu, Y., Dailey, S., Kreitzberg, D. & Bernhardt, J. (2017). 'Social Networkout: Connecting Social Features of Wearable', *Journal of Health Communication*, Vol. 22, pp.974–980.
-

SSIRC 2023-195**INTRAPRENEURIAL C-SUITE: THE SOLUTION FOR HIGH-PERFORMANCE STATE-OWNED ENTERPRISES IN DEVELOPMENTAL STATES****L.T. Chamba**

Durban University of Technology, South Africa

H. Zhou

University of KwaZulu-Natal, South Africa

ABSTRACT

Most of the State-Owned Enterprises (SOEs) across Africa have proven to be dysfunctional and have failed to address the problem of market failure for their economies, as evidenced by poor financial returns and poor service delivery to citizens. This is a cause of concern, as African governments rely on these entities for economic development. Efforts to reposition and redesign SOEs seem to have brought no major improvement in the performance of these entities as most citizens in Africa are without essential services. Hence, the imperative to invest in developing the intrapreneurial capabilities of SOE C-Suite in a bid to leverage improved service delivery and excellence in performance. The paper aims to show the influence of intrapreneurial leadership on the performance of SOEs. The study uses a mixed methodology design to establish the influence of leadership on intrapreneurial activity, as well as on organisational performance. A cross-sectional survey that used the concurrent embedded approach to data collection was adopted. Data from questionnaires were analysed statistically using STATA and Warp-PLS 6.0, while thematic network analysis was used to analyse data obtained from interviews conducted. Findings indicate that leadership has a positive effect on the intrapreneurship, which consequently improves performance of firms. The study confirms the need for intrapreneurial leadership in the public sector to tackle the problems bedevilling Africa's public service and deliver optimal public value through the progression of innovation and harnessing modern technologies to improve public sector performance.

KEYWORDS: C-Suite, Intrapreneurial capabilities, intrapreneurial orientation, State-Owned Enterprises, public value, high- performance organisations

1. INTRODUCTION

The economic landscape in Africa has been marred by political instability, high levels of poverty, high unemployment rates, rapid inflation, corruption, and geopolitical wars all of whose effects have been aggravated by the COVID-19 pandemic and the recent Russia-Ukraine war. The African Economic Outlook (2021:23) posits that Africa is experiencing economic adversities from the combined effects of the COVID-19 pandemic, as well as from spillovers from the tightening of global financial conditions due to elevated inflation risks in advanced economies, Russia-Ukraine conflict and related sanctions on Russia. These conditions have brought additional uncertainties that threaten to set back Africa's promising medium-term growth outlook. This has made it increasingly difficult for African leaders to achieve the United Nations Sustainable Development Goals (SDGs) as well as their own aspirations in the agenda 2063, 'The Africa we want'. Zimbabwe's economy has not been spared from these difficult conditions on the African

landscape and the poor economic growth rate in the country is also exacerbated by the poor performance of SOEs which is believed to be a result of a deficiency of intrapreneurial leadership. This calls on a review of leadership to drive SOEs to better performance so that they maintain their role as catalysts of economic growth and development.

Kim and Ali (2017) postulate that in most countries worldwide, SOEs often constitute the country's mega infrastructure projects and remain a critical source of employment and economic growth in developing countries, highlighting the need to invest in improving the performance of these utilities for economic growth and development. The leadership challenge that confronts SOE leaders is learning how to lead their entities in situations of ever greater volatility and uncertainty in a globalised business environment, allied with the needs to deal with scale, complexity, and new organisational forms that often break with the traditional organisational models and structures within which many have learned their *leadership trade* (Bawany, 2018).

The Zimbabwean economy, as most Emerging Market Economies (EME) in Africa, has presented a hostile and dynamic business environment for organizations, and (SOEs) have not been spared from the wrath of such a turbulent economy. Mhlakaza and de Villiers (2022) assert that SOE operational and strategic performance in Zimbabwe was exceptionally well prior to the independence of these countries but has been on a steady decline to date. The authors suggest that various research findings indicate that this under-performance was due to leadership factors. Most SOEs in Zimbabwe have exhibited poor performance owing to business environment dynamism coupled with the effects of austerity measures introduced by the Zimbabwean government. Notably, some SOEs have recorded success despite this challenging environment. This difference in performance of SOEs operating in the same environment points to the effect of leadership on the performance of firms. The paper aims to show the influence of intrapreneurial leadership on the performance SOEs by exploring the Dynamic Capabilities View Theory and how it relates to intrapreneurial leadership. This is premised on the study by Teece *et al* (2016), that intrapreneurial capabilities leverage competitive advantage, and that an understanding of the role of intrapreneurial leadership contributes to a stronger foundation for economic models and innovation.

Literature has alluded to the role of intrapreneurial leadership in accentuating firm performance. Klofstein *et al.* (2020) posit that intrapreneurial leaders are crucial to firm performance by creating organisational environments which are conducive to firm performance. Intrapreneurial leaders also impact positively on the strategic agility of the firm which facilitates in the exploitation of opportunities and fosters sustainable competitive advantage. Thuy *et al.* (2022) corroborates this and highlight that leadership behaviour has a positive impact on the intrapreneurship of state-owned enterprises.

The study uses a mix-method research study to establish the relationship between leadership, which comprises Senior Management or Executives and the Board of Directors, on firm performance. The study sought to determine the influence of the leadership capabilities of the C-Suite, on organisational performance. The significance of the study lies in its linking of the

theories of Dynamic Capabilities and Intrapreneurship in the quest for sustainable firm performance in SOEs. The study progresses the notion of the strategic importance of intrapreneurial leadership in driving the growth and competitiveness in SOEs. The article contributes to Strategic Management and Public Administration literature.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Theoretical Framework

The Dynamic Capabilities View (DCV)

The study is based on the Dynamic Capabilities View (DCV) and the High-Performance Organisation (HPO) theory. The DCV attempts to explain how a firm can enjoy a sustained superior performance in a dynamic environment through continuous proactive and reactive change (Teece, 2018). The theory is concerned with how a firm can sustain and enhance their competitive advantage, notably when facing changing environments by changing the way it solves its problems using its organisational resources and strategic routines (Chamba, 2021). The first well-acknowledged definition of dynamic capability is “the firm’s ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments” (Teece, 2007:48). Dynamic capabilities are regarded as the organisational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die (Peteraf, 2013) or simply, the capacity of an organisation to purposefully create, extend, or modify its resource base (Teece, 2007, Helfat & Martin, 2015). The main premise of the DCV theory is that the firm’s ability to alter its resource base facilitates continuous adaptation to change (Breznik & Hisrich, 2014).

Organisations need dynamic capabilities to engage in intrapreneurial activities in order to exploit opportunities in the business environment for the customers as well as for organisational survival and success. Hence, this study considers dynamic capabilities linked to intrapreneurship as intrapreneurial capabilities as organizations need these capabilities to foster intrapreneurial activities. Peteraf (2013) posits that intrapreneurial capabilities can be viewed as the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die or the capacity of an organization to purposefully create, extend, or modify its resource base. Klofsten et al (2020) define intrapreneurial capabilities as the organization’s ability to react quickly and innovatively to internal and external environmental changes for achieving the organization’s survival and success, especially in uncertain and turbulent environments. The five intrapreneurial capabilities to be considered for this study include autonomy, competitive aggressiveness, innovativeness, pro-activeness, and risk-taking (Chamba, 2023). Together these five intrapreneurial capabilities form the intrapreneurial orientation of a firm (Kuratko et al, 2011). Intrapreneurial capabilities depend on firm history and influence the firm’s future and can provide (either directly or indirectly) competitive advantage (either temporary or sustained). Klofsten et al, (2020) posit that intrapreneurial capabilities allow a firm to respond to change by altering operational capabilities, an effort that requires significant managerial involvement. Their value depends on the dynamism of the firm’s environment, to

justify the cost of developing and maintaining intrapreneurial capabilities, firms must use them frequently to provide net benefits.

The High-Performance Organization Theory

The study also considered the High-Performance Organization (HPO) Theory. Pattanasing et al, (2019), de Waal and Gordgeburre (2017) define a high-performance organization (HPO) as an organization that achieves better financial and non-financial performance than its counterparts. The American Management Association (2017) asserts that high-performing organizations are superior to their low-performance counterparts in that, firstly, their strategies are more consistent, clearer, and well thought out, with philosophies that are consistent with their strategies. Secondly, HPOs tend to put customers first, strive to be world-class in providing customer value, think about customers' future and long-term needs, and exceed customer expectations. They regard customer information as the most important factor for developing new products and services. Thirdly, HPOs adhere to high ethical standards throughout the organization. Fourthly, the leadership is talent-oriented, promotes the best people for a job, make sure performance expectations are clear, and convince employees that their behaviours affect the success of the organization. They are superior in terms of clarifying performance measures, training people to do their jobs, and enabling employees to work well together. They also make customer needs a priority. Finally, leadership emphasizes a readiness to meet new challenges and is committed to innovation. Their employees use their skills, knowledge, and experience to create unique solutions for customers.

The limitation of the two theories is the heavy reliance on management for organisational performance even though managers in themselves are different human beings with different traits and attributes. For instance, cognitive capabilities are heterogeneously distributed among managers. Thereby, each manager differs in his or her capabilities in sensing and seizing opportunities and transforming the resource base (Helfat & Peteraf, 2015). Thus, some managers will be able to sense new opportunities more accurately than others whereas some managers will design more effective business models (Teece, 2018), and make more astute investment decisions than others; and some, who have better language and social capabilities, will find it easier to gather support and implement strategic change. This implies that by virtue of having different individuals leading them, organisations will perform differently and manifest different levels of operational excellence.

Several studies have focused on the role of top managers, as the effect is cascaded to other management levels. Teece (2017) and Chamba (2021) posit that intrapreneurial efforts should not be restricted to the top management or CEO but should occur throughout the whole organization. Teece (2007) highlights that sensing opportunities requires the decentralisation of structures to facilitate communication with all the different levels of management that can sense the opportunities emanating from the market. With centralized structures such as those in SOEs, top managers may not be as close to customers as mid- and lower managers. As such, top managers may not be able to identify opportunities which fit their customers' needs like middle managers. Whatever their level in the hierarchy, managers can display managerial intrapreneurial capabilities.

2.2 Hypothesis Development

Intrapreneurial Leadership and Firm Performance

The primary function of leadership in any organization is to create an enabling environment for firm performance. Leadership describes the process of influencing people to achieve an organization's goals and guiding others' behaviour to attain organizational objectives (Thuy *et al*, 2022; Mehmet & Chowdhury, 2020). Alacorn *et al* (2018) consider that leadership plays an important role of the transformation of entities through different strategic acts that are non-traditional and do not arise from routine functions. This in essence relates to the fundamental nature of strategic leadership in generating superior performance and survival. Managerial capabilities are concerned with the role of managers in refreshing and transforming the resource base of the firm so that it maintains and develops its competitive advantage and performance (Ambrosini & Altintas, 2019).

Taylor (2018) highlights that intrapreneurial leadership is an essential prerequisite of high-performance organisations. Senior management bears the responsibility to ensure that the organization operates according to its objectives while considering the various participants, regulatory authorities, and laws (Reichatz & Weinert 2016). Leadership is also instrumental in shaping the organisational culture, as well as the intrapreneurial orientation which forms the basic assumptions of intrapreneurship (for example, risk taking, innovation and creativity, learning, change) can be found within the organisation. Hence, management activities are central to shaping the Intrapreneurial Orientation (IO) of an organisation, which consequently results in the implementation or non-implementation of intrapreneurial activities and influences performance. Hence the following hypothesis:

H1: Leadership has a positive influence on firm performance.

Leadership and Intrapreneurship (Intrapreneurial Activity)

Leadership attitudes and behaviours play a necessary role in improving intrapreneurship. This affects an organization's efficiency and effectiveness, as well as services to their customers in a funding-constrained environment (Zerbinati & Souitaris 2005), such as the one prevailing in Zimbabwe. Leadership in SOEs is also an important source for resource acquisition, changing strategies based on knowledge of the changing environment (Covin *et al*. 2019), and motivating employees to be intrapreneurial through incentives and creating an intrapreneurial culture (Kim, 2010). Hence, to generate intrapreneurial activity, leaders need to be able to motivate, design tasks, and delegate and coordinate human resources (Currie *et al*. 2008). They are also able to effectively manage setting goals, allocating labour, and enforcing sanctions. They initiate the structure for their followers, define the roles of others, explain what to do and why, establish well-defined patterns of organization and channels of communication, and determine the ways to accomplish assignments (Bass, 1990).

Teece (2017) describes a manager's role to involve sensing and seizing opportunities and transforming the resource base. The ability to sense an opportunity and seize it, and eventually

transform the resource base requires interpretation, reflection, and decision-making by managers. This brings in the concept of managerial capabilities. Managerial or leadership capabilities are key to performance, as they are at the core of strategic change and firm renewal. The role of managers is fundamental to strategic change and firm performance in so far as managers are behind the creation and discovery of new opportunities (Adner & Helfat, 2003; Helfat & Martin, 2015). Teece (2017) indicates that managers are the pillars behind intrapreneurial capabilities. More precisely, he explains that beyond their operational role, which is about the development of current activities such as budgeting and staffing, managers have two roles that underpin dynamic capabilities: an intrapreneurial role and a leadership role (Teece, 2017). The intrapreneurial role involves the ability to sense and seize opportunities, orchestrate resources, and adapt the organization and its business model. The leadership role requires propagating the vision and values of the organization, aligning people with strategy, and motivating them. Together these roles form what Teece (2007, 2017) called intrapreneurial management and this constitutes the functions of intrapreneurial capabilities (Helfat & Martin, 2015).

The concept of intrapreneurial management emphasizes the strategic function of managers (Teece, 2007B, 2012; Augier & Teece, 2009). Intrapreneurial activities (Teece, 2012), such as the identification and exploitation of opportunities, are required for the development of dynamic capabilities. These activities consist of selecting the desired resources and skills and promoting organizational learning to capture external knowledge (Zahra et al., 2006). This is in line with the Schumpeterian argument that leadership must introduce novelty and seek new combinations of resources and competencies, and with evolutionary theories in that managers must promote and shape learning (Augier & Teece, 2008). Thus, the importance of top managers in the creation and deployment of intrapreneurial capabilities should not be undermined. For example, Teece (2007) indicates that top leadership skills are required to sustain intrapreneurial capabilities because, while some elements of the intrapreneurial capabilities are embedded in organizations, the ability to transform the resource base is the responsibility of top management. However, some top managers may be stuck in their old ways of doing things, and thus develop rigidities. In the same vein, some managers may misinterpret the competitive landscape they operate in and, as a result, may trigger inappropriate dynamic capabilities (Ambrosini & Altintas, 2019), inducing a drop in performance. Organizations need top managers who can bring organizational transformations by making new commitments and breaking old ones (Rosenbloom, 2000).

Leadership is crucial in determining the strategic agility of a firm. Strategic agility refers to flexibility and speed in business strategy (Reed, 2017). This implies that the role of top managers is not only about engaging in intrapreneurial activities but is also about recognizing and acting on relevant ideas that emerge from any level of the organization (Teece, 2016). Thus Thuy et al (2022) assert that the thrust of the leadership role in SOEs is adapting to change in the environment, increasing flexibility and innovation; making major changes in processes, products, or services. Strategically agile organisations are thus able to change direction quickly through their heightened sensitivity to strategic developments (strategic sensitivity), making bold and fast decisions (leadership unity), and redeploying resources rapidly (resource fluidity), (Reed 2017; Doz & Kosonen; 2010). Strategic agility is therefore a type of dynamic capability, enabling firms to

reconfigure their resources and capabilities to address rapidly changing environments (Teece et al., 2016). Literature also shows that CEOs play an important role in the configuration of the senior executive team's managerial capabilities through the identification, recruitment, and gathering of managerial skills. The importance of CEOs lies in the orchestration of the senior executive team's managerial capabilities by establishing and promoting an environment where the team can share, discuss, and negotiate ideas, perspectives, and beliefs. This fosters synergy and continuous learning, and, consequently, the senior executive team dynamic managerial capabilities improve and develop.

Many organizations, including SOEs, still struggle with integrating the concept of intrapreneurship into their daily work routines, mainly due to their conventional organizational structures, such as bureaucracy, hierarchy, rules etc., which do not support intrapreneurial culture and behaviour. The high level of defined tasks, schedules and surroundings deter opportunities for serendipity and innovative ideas to be recognized (Schleisinger and Kiefer, 2014). To be able to create sustained public value through intrapreneurship within an organization, management support is essential. Leadership should strive to increase their organization's intrapreneurial orientation and thus, their capacity for innovation. As managers can provide facilities and marshal resources to achieve a high level of organizational performance, they are competent to introduce intrapreneurship in different aspects, procedures, and processes of an organization. Thus, the leadership is eventually responsible for providing working conditions that enable and cultivate intrapreneurial attitudes and behaviours (Fasnacht, 2009). Hence, management should encourage a transparent and sharing organization, which incorporates intrapreneurship into the strategy and provide the resources required to establish an intrapreneurial organizational culture.

There are also authors like Antoncic and Hisrich (2001) as well as Barringer and Bluedorn (1999) who find a positive relationship between intrapreneurship and formalized management activities. Similarly, a survey conducted by McKinsey in 2010 supports the assertion that organizations with formal innovation processes report higher success rates (Capozzi et al., 2010). Reichatz and Weinert (2016) define formalized managerial activities as those that give employees a regulated framework to operate in; that structure their intrapreneurial work activities and processes and that govern them by rules and procedures. They are to be deemed as incubators for intrapreneurship. Formalized managerial activities and systems are designed to support the intrapreneurs from the set-up of the idea via the testing of beta versions through to the final resulting product or service.

Another method of encouraging intrapreneurship is through open managerial activities. Reichatz and Weinert (2016) propound that open managerial activities that foster intrapreneurship are enterprise social networks that frame the interaction among employees and thus lead to more knowledge and more innovation. Moreover, open activities are defined by making use of Vesper's (1984) definition, which emphasizes that managers should establish an intrapreneurial corporate culture and climate among their organization. While formalized activities are assumed to give employees a regulated framework to operate in, which structures their intrapreneurial work activities and processes and govern them by rules and procedures, open activities support the

intrapreneurs from the set-up of the idea to the testing of beta versions and to the final resulting innovation and are renowned as intrapreneurship incubators. Hence the hypothesis

H2: Leadership influences intrapreneurial activity.

Intrapreneurship and Firm performance

Literature alludes to intrapreneurship as entrepreneurship in existing organizations. Schachteback et al., (2019) posit that intrapreneurship involves organizations using entrepreneurial behaviour to take advantage of opportunities in the business environment. Thus, the concept of intrapreneurship refers to activities in organizations that proactively pursue opportunities presented by the business environment for the benefit of their clients. It involves risk-taking and proactive innovations for customers by taking advantage of opportunities that are presented by the dynamic business environment. Innovation is a tool in intrapreneurship that allows intrapreneurs to exploit change as an opportunity for business (Heye, 2006). Kankisingi (2019) postulates that innovations are an expression of intrapreneurial activity and contribute to the long-term survival and growth of an organization. Intrapreneurship has been envisaged as a mechanism to improve public sector performance by progressing innovation. The benefits of intrapreneurship include increased efficiency and effectiveness, growth, profitability, productivity, strategic renewal, value-added products and services, and customer satisfaction. Thus, intrapreneurship may be used to achieve an improvement in organisational performance, (Chamba 2021). The intersection of these two concepts brings in the domain of intrapreneurial management. The importance of this field of study lies in its emphasis of the role of leadership in influencing intrapreneurial activities which encourage sustainable firm performance through operational excellence. All this resonates well with the aim of equipping leadership in SOEs to foster firm performance for sustainable economic growth and development on the African continent. Hence, the hypothesis:

H3: Intrapreneurship influences firm performance.

Conceptual Model

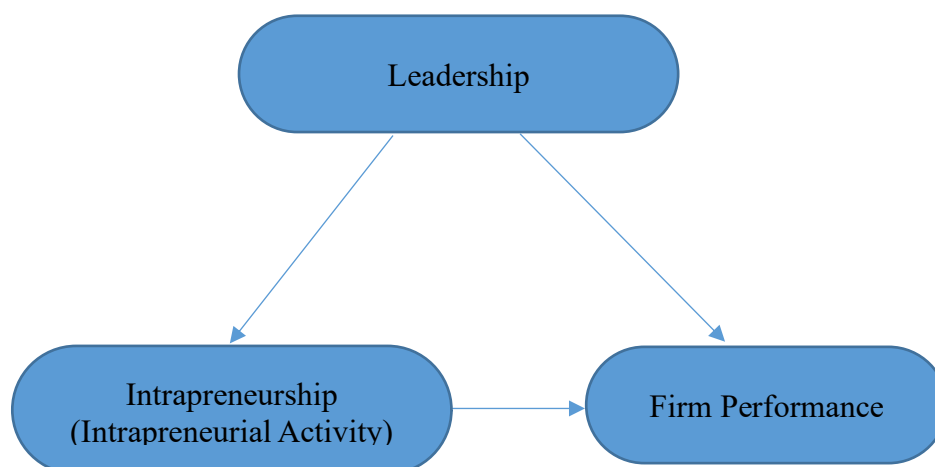


Fig 1: Conceptual model for the study Source: Author

The model shows the relationships that the study seeks to set out; that is the relationship between Leadership and Firm Performance, the influence of Leadership on Intrapreneurship, and finally the relationship between Intrapreneurship and Firm Performance

3. METHODOLOGY

3.1 Research Design

A mixed methods design was adopted for this study. The premise of this form of inquiry is that combining qualitative and quantitative approaches provides a better comprehension of a research problem than use of one approach (Creswell, 2014; Chamba 2021, . This study made use of the concurrent embedded approach, by collecting both quantitative and qualitative data at the same time. The survey was cross-sectional in both the population and time frame of the research. The biggest challenge with this study as with all other cross-sectional studies is its inability to measure change, it can only measure incidence, not what triggers the data originally (Kumar, 2011). The target population was 107 SOEs present in Zimbabwe. These SOEs are distributed the across thirteen sectors of the economy, which are health, education, transport, mining, agriculture, sports and arts, telecommunications, industry and trade, financial services, environment, energy and power, information and tourism based on the Auditor General Report (2020). Intrapreneurship is inevitably different across different industries, and therefore representation from each of the intrapreneurial contexts in which these SOEs operate in (Aparicio, 2017) was considered of great importance.

The target audience for the questionnaires were from the five (5) departments in SOEs, which are finance, human resources, information and communication technology ICT, operations, and marketing. SOEs in Zimbabwe have a generic structure that includes these five functions. Thus, the target population comprises 535 managers from SOEs spread across Zimbabwe. Simple random sampling was used to select middle managers who participated in the study. A total of 300 questionnaires were distributed across SOEs in Zimbabwe. On the qualitative domain, the researcher used purposive sampling to choose one senior executive from each SOE to participate in interviews. Braun and Clark (2016) suggest a minimum of 6 interviews as an ideal sample size for TA while Cedervall and Åberg (2010) suggest a sample of not less than 16 for publishable research. The authors conducted 28 interviews after which she observed redundancy in the data set.

4. RESULTS AND DISCUSSION

An assessment of the outer model for the estimation of the indicator loadings of specific constructs (Ong & Puteh, 2017) was performed. A reliability test was performed to measure the constructs of the model and the consistency of the questionnaire. A computation of the outer loadings of the individual constructs in the questionnaire and found out that the loadings were acceptable as shown in Table 1 below.

Measurement Scale

Constructs in this study were based on previous literature. The leadership capabilities are based on intrapreneurial capabilities. The leadership capabilities to be considered for this study include autonomy, competitive aggressiveness, innovativeness, pro-activeness, and risk-taking. (Kuratko

et al, 2011). The dimensions of intrapreneurship considered for the study are new products and services, new processes, and strategic business units (SBUs). Organisational performance variables under study are financial (profitability, liquidity, budget execution rate), Customer satisfaction (Convenience of Goods/ Services, Customer Care, Pricing of Goods and Services, Transaction methods and systems efficiency), and Social Impact (corporate social responsibility, governance, and stakeholder involvement).

Table 1: Combined Factor loadings (Bold) and cross loadings

| | Leadership | IO | Intra | Firm Perf | P value |
|------|-------------------|--------------|--------------|------------------|----------------|
| L1 | 0.844 | -0.099 | 0.176 | 0.012 | <0.001 |
| L3 | 0.820 | -0.053 | -0.182 | -0.024 | <0.001 |
| L4 | 0.839 | 0.070 | 0.211 | -0.284 | <0.001 |
| L5 | 0.683 | -0.178 | -0.202 | 0.262 | <0.001 |
| L6 | 0.829 | 0.229 | -0.046 | 0.084 | <0.001 |
| IO1 | 0.067 | 0.817 | -0.231 | -0.105 | <0.001 |
| IO2 | -0.055 | 0.773 | 0.375 | -0.144 | <0.001 |
| IO3 | -0.097 | 0.713 | 0.124 | 0.224 | <0.001 |
| IO4 | 0.058 | 0.661 | -0.044 | 0.058 | <0.001 |
| IO5 | -0.102 | 0.698 | 0.006 | 0.157 | <0.001 |
| IO6 | 0.148 | 0.767 | 0.114 | -0.181 | <0.001 |
| IO7 | -0.030 | 0.773 | -0.326 | 0.038 | <0.001 |
| I1 | -0.280 | 0.051 | 0.899 | 0.226 | <0.001 |
| I2 | -0.093 | -0.070 | 0.853 | 0.114 | <0.001 |
| I3 | -0.077 | -0.033 | 0.869 | -0.096 | <0.001 |
| I4 | 0.101 | 0.140 | 0.882 | -0.173 | <0.001 |
| I5 | 0.356 | -0.093 | 0.869 | -0.075 | <0.001 |
| F1 | -0.079 | -0.275 | 0.256 | 0.825 | <0.001 |
| F2 | -0.031 | -0.320 | 0.030 | 0.825 | <0.001 |
| F3 | 0.027 | -0.298 | 0.253 | 0.808 | <0.001 |
| F4 | -0.110 | 0.029 | 0.229 | 0.760 | <0.001 |
| F5 | -0.193 | 0.287 | 0.027 | 0.666 | <0.001 |
| F6 | 0.414 | 0.469 | -0.195 | 0.717 | <0.001 |
| CSI1 | 0.018 | -0.034 | -0.030 | 0.795 | <0.001 |
| CSI2 | -0.390 | 0.265 | 0.013 | 0.712 | <0.001 |
| CSI3 | 0.295 | -0.072 | -0.150 | 0.754 | <0.001 |
| CSI4 | 0.173 | 0.275 | -0.234 | 0.703 | <0.001 |
| S1 | -0.034 | -0.173 | -0.008 | 0.759 | <0.001 |
| S3 | -0.092 | 0.017 | -0.252 | 0.769 | <0.001 |

Source: Author from data

Hair et al (2019:09) recommends loadings above 0.60, as this indicates that the construct describes more than 50 per cent of the indicator’s variance, thereby providing an acceptable item. Henseler et al., (2016) posit that items with loadings of between 0.40 and 0.70 are deemed as well preserved,

although loadings equal to or greater than 0.70 are deemed more suitable. The questionnaire items were deemed acceptable as the loadings were above 0.60.

Reliability Tests

Table 2. Correlations, Cronbach’s alpha, Composite reliability, Average Variance Extracted (AVE), and square roots of AVEs.

| | CA | CR | AVE | L/ship | I | Intra | FP |
|--------|-------|-------|-------|--------------|--------------|--------------|--------------|
| L/ship | 0.863 | 0.902 | 0.648 | 0.805 | | | |
| IO | 0.865 | 0.897 | 0.555 | 0.714 | 0.745 | | |
| Intra | 0.923 | 0.942 | 0.765 | 0.743 | 0.672 | 0.874 | |
| FP | 0.933 | 0.942 | 0.577 | 0.836 | 0.754 | 0.696 | 0.759 |

CA= Cronbach alpha, CR=Composite reliability, AVE=Average variance extracted, L/ship=Leadership IO=Intrapreneurial orientation, Intra=Intrapreneurship, FP=Firm Performance.

The Cronbach’s alpha values in Table 2, were above 0.7 and below 0.95 indicating acceptable reliability (Sekeran & Bougie, 2016). The study applied the composite reliability (CR) tests which is regarded as a more reliable test of reliability (Hair, et al., 2019). The composite reliability values obtained were above 0.7 indicating acceptable reliability measures.

The questionnaire was also subjected to validity tests. The level of common variance among the indicators which is referred to as Adverse Variance Extracted (AVE) was conducted give proof for convergent validity. Convergent validity of 0.5 indicates convergent validity (Hair & Ringle, 2016, Ong & Putech, 2017). This means the construct describes at least 50 percent of the variance of its convergent validity, as shown in Table 2 (Hair et al, 2019). AVE values of 0.5 and above. Therefore, in this study, all AVE values were above 0.5 indicating convergent validity, thus it provides a good degree of convergent validity. Collinearity tests were carried out using the Variance Inflation Factor, VIF. A VIF measures the extent to which multi-collinearity has increased the variance of an estimated co-efficient (Hair et al, 2019: 11). It considers the magnitude to which an explanatory variable can be explained by all other variables in the equation. Hair et al (2019:11) posit that VIF values should be less than 5, and ideally 3.33 for PLS-SEM to guarantee that collinearity is not an issue in a model. For this study VIF is 3.3033, while AFVIF is 3.936 which is acceptable. The study therefore has no issues of collinearity and therefore the statistical significance of the independent variable is not undermined.

Table 3 Summary of Hypothesis Testing

| Hypothesis | Path | Path coefficient | P values | Decision |
|------------|-------------------|------------------|----------|----------|
| H1 | Leadership->Intra | 0.198 | <0.05 | Accepted |
| H2 | Intra-> FP | 0.126 | <0.05 | Accepted |
| H3 | Leadership->FP | 0.519 | <0.05 | Accepted |

Significant at $\alpha = 0.01$

The findings reveal that Leadership in SOEs has a positive influence on Intrapreneurship in Zimbabwe ($\beta=0.2$; $p<0.01$). Interview results however confirm that leadership has a profound influence on intrapreneurship in parastatals, as these positions provide the institutional and financial support needed for intrapreneurship to take place. One senior manager commented:

“Without leadership support, intrapreneurship cannot take off in SOEs, as leaders are the lifeblood of intrapreneurship”. Manager 2, Harare)

Another interviewee highlighted that:

“Leadership sets the tone of the intrapreneurial activities in any organization, if we are conservative and do not see the need to be proactive to create new products and services, then that status quo will prevail through the entire organization”. (Manager 12; Mutare)

The study findings assert the view by Taylor (2018) that leadership is an essential element of intrapreneurship. Leadership affects intrapreneurship in that management support is the anchor of all intrapreneurial ventures in an organization. Hence if leadership is flexible in decision-making, agile, and grants quick access to resources, then intrapreneurship activities are likely to be high in that organization. Leadership is also an important determinant of IO as it influences how an organization chooses to compete in the business arena and produce new and improved services for its clients.

The findings reveal that Intrapreneurship has a significant positive relationship with FP in SOEs ($\beta=0.52$; $p<0.01$). The model indicates ($R^2 =0.64$) meaning that IO has an explanatory power of 64% on organisational performance which is high. The results point toward the fact that IO in SOEs determines firm performance. The results concur with the recent findings from Aslam et al. (2020) who assert the importance of Intrapreneurship in increasing and enhancing the overall FP in SOEs. The study results are in line with the views of Semrau et al., (2016) that intrapreneurial traits and activities are important for organizations to survive and grow.

Interview findings confirm the findings from quantitative data as most participants alluded to the fact that low Intrapreneurship resulted in poor performance in parastatals. One interviewee highlighted that:

“Our poor intrapreneurial posture is the major cause of the below-average performance as we are not able to exploit opportunities in the business environment to make us competitive and organisations of excellence Leadership is generally risk-averse and does not seem to cope adequately to the turbulent business environment present in the country”. (Bulawayo, January 18, 2021)

Another participant also reiterated that:

“The lack of agility, responsiveness and conservative manner has resulted in poor service delivery”. (Manager Harare in March 2021).

However, for those organizations with a good IO, the situation is different, as the leadership testifies to improved organisational performance.

An Interviewee from Harare confirmed that his organization has managed to introduce new services and delivery methods for customers.

“We have experienced an increase in revenue, better budget execution rate, and feedback of increased customer satisfaction because our attitude towards innovation and intrapreneurship that has kept the organization’s performance good. The organization is quite agile and proactive towards initiatives, and this has benefited the organisation immensely”.

Thus, interview results also confirm the positive impact of Intrapreneurship on firm performance.

Literature alludes to the fact that Intrapreneurship is a predictor and driver of firm performance (Schachetebeck et al., 20018). According to Urban and Verachia (2019), several studies have empirically tested the influence of IO on firm performance (Ireland et al., 2009; Zahra and Covin, 1995) and reported a strong relationship over time, which means that IO is effective within the organisation over a certain period. Firm performance in dynamic environments such as emerging economies, make strong demands on the ability of firms to efficiently develop and utilise their resources to meet customer demands (Hoskisson et al. 2000). Slater and Narver (2000) performed a meta-analysis study on the relationship between Intrapreneurship and firm performance and established that the correlation between Intrapreneurship and Firm Performance has a causal link to both financial and non-financial performance indicators (Rauch et al., 2009). Studies by Fatoki (2019) and Jiang et al. (2018) also support a significant positive relationship between Intrapreneurship and FP as they reveal that intrapreneurship improves firm performance through innovation that results in process efficiency as well as cost-effectiveness. The study findings indicate that leadership has a positive impact on the level of intrapreneurship in SOEs Hence, this objective was achieved as study findings confirm that Intrapreneurship has a significant positive influence on organisational performance.

5. CONCLUSION

The study concludes that leadership is the key driver of financial and operational performance as well as an enabler for organisations to execute their strategy and achieve success. The study has shown that professionals with an intrapreneurial profile are important for high-performance SOEs. The role of leadership is fundamental to strategic change and firm performance insofar as managers are behind the creation and discovery of new opportunities (Adner & Helfat, 2003; Helfat & Martin, 2015). The notion of intrapreneurial management emphasizes the strategic function of managers. The C-Suite determines the nature of intrapreneurial activities, such as the identification and exploitation of opportunities, which SOEs engage in such as they are paramount to undertaking decisions such as selecting the desired resources and skills and promoting

organizational learning to capture external knowledge. This is in line with the argument that managers must introduce novelty and seek new combinations of resources and competencies. The extent to which leadership facilitates intrapreneurship which results in innovations such as new products and services largely influences the performance of their entities. Hence an intrapreneurial leadership, is paramount to SOEs fulfilling their societal mandate and government duty mandate, public value creation and ensuring that maintain their role as engines of economic growth.

6. RECOMMENDATIONS

The study recommends that SOE policymakers become more intentional about intrapreneurship in these organisations. There is a need to create an intrapreneurial blueprint to measure these organisations' intrapreneurial performance. There is currently no policy in Zimbabwe for monitoring intrapreneurship, hence most SOEs are not focused on intrapreneurial activity. When intrapreneurial activity is included in the performance evaluation of parastatals, intrapreneurship will become vital in these organisations.

REFERENCES

- Alvarez, S. A., & Busenitz, L. W. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, 27(6), 755–775.
- Alzyadat M, Baruah, B and Ward, A (2020) How can Organizations Harness the Intrapreneurial Capabilities of Their Engineers and Facilitate Innovation? <https://www.researchgate.net/publication/344429525> DOI: 10.34190/EIE.20.176
- Alzyadat, M., Baruah, B. and Ward, A., (2021) The Role of Managers in Stimulating Engineers' Intrapreneurial Capabilities-A Case Study of Technology-based SMEs. *Athens Journal of Technology & Engineering*, p.311-330
- Ambrosini, V. and Altintas, G., (2019). Dynamic managerial capabilities. In *Oxford Research Encyclopedia of Business and Management*.
- Antoncic, B. (2007). Intrapreneurship: A comparative structural equation modeling study. *Industrial Management & Data Systems*, 107(3), 309–325.
- Antoncic, B., & Hisrich, R. D. (2003). Clarifying the intrapreneurship concept. *Journal of Small Business and Enterprise Development*, 10(1), 7–24.
- Antoncic, B., & Hisrich, R. D. (2004). Corporate entrepreneurship contingencies and organizational wealth creation. *Journal of Management Development*, 23(6), 518–550.
- Antoncic, J. A., Antoncic, B. & Li, Z. (2018). Creativity of the Entrepreneur, Intrapreneurship, and the Growth of Small and Medium-Sized Enterprises: Evidence from China. *Chinese Business Review*, 17 (7), pp.336–341.

-
- Aragon-Mendoza, J., del Val, M. P., & Roig-Dobón, S. (2016). The influence of institutions development in venture creation decision: A cognitive view. *Journal of Business Research*, 69(11), 4941–4946.
- Ariail, D. L., Quinet, G. R., & Thacker, R. M. (2010). Creating and fostering sustainable intrapreneurship: A conversation with David Gutiérrez. *Journal of Applied Management and Entrepreneurship*, 15(2), 121–129.
- Awang, A., Khalid, S.A., Yusof, A.A., Kassim, K.M., Ismail, M., Zain, R.S. and Madar, A.R.S., (2009). Entrepreneurial orientation and performance relations of Malaysian Bumiputera SMEs: The impact of some perceived environmental factors. *International Journal of Business and Management*, 4(9), pp.84-96.
- Baía, E.P. and Ferreira, J.J., (2019). Dynamic capabilities and performance: How has the relationship been assessed? *Journal of Management & Organization*, pp.1-30.
- Badarai, E. (2020). *A model of transformational leadership and organisational performance in state-owned enterprises in Zimbabwe* (Doctoral dissertation, University of the Free State).
- Baruah, B. and Ward, A. (2014). Metamorphosis of intrapreneurship as an effective organizational strategy. *International Entrepreneurship and Management Journal*, 11 (4), pp.811–822.
- Baruah, B. and Ward, A. (2015). ‘X’ Entrepreneurship- a holistic approach to bring clarity in entrepreneurial research. *Voice of Research*, 4 (1), pp.65–72
- Braun, V., Clarke, V. and Weate, P., (2016). Using thematic analysis in sport and exercise research. In *Routledge handbook of qualitative research in sport and exercise* (pp. 213-227). Routledge.
- Baker, W. E., & Sinkula, J. M. (2009). The complementary effects of market orientation and entrepreneurial orientation on profitability in small businesses. *Journal of Small Business Management*, 47(4), 443–464.
- Baruah, B., & Ward, A. (2015). Metamorphosis of intrapreneurship as an effective organizational strategy. *International Entrepreneurship and Management Journal*, 11(4), 811–822.
- Basso, O., Fayolle, A., & Bouchard, V. (2009). Entrepreneurial orientation: The making of a concept. *The International Journal of Entrepreneurship and Innovation*, 10(4), 313–321.
- Barreto, I. (2010), “Dynamic Capabilities: A Review of Past Research and an Agenda for the Future”, *Journal of Management*, 36(1), 256–280
- Belousova, O., & Gailly, B. (2013). Corporate entrepreneurship in a dispersed setting: Actors, behaviors, and process. *International Entrepreneurship and Management Journal*, 9(3), 361–377.
- Bos-Brouwers, H. E. J. (2010). Corporate sustainability and innovation in SMEs: Evidence of themes and activities in practice. *Business Strategy and the Environment*, 19(7), 417–435.
-

Brettel, M., & Rottenberger, J. D. (2013). Examining the link between entrepreneurial orientation and learning processes in small and medium-sized enterprises. *Journal of Small Business Management*, 51(4), 471–490.

Brinkmann, U. (2011). Internalisation of markets and internal entrepreneurship: Competition or co-operation? *International Journal of Action Research*, 7(2), 196–240.

Cedervall, Y. and Åberg, AC (2010). (Mis) conceptualising themes, thematic analysis, and other problems with Fugard and Potts' (2015) sample-size tool for thematic analysis. *International Journal of social research methodology*, 19(6), pp.739-743.

Cinar, E., Trott, P. and Simms, C., 2019. A systematic review of barriers to public sector innovation process. *Public Management Review*, 21(2), pp.264-290.

Clarke, V. and Braun, V., (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The psychologist*, 26(2).

Criado-Gomis, A., Cervera-Taulet, A. and Iniesta-Bonillo, M.A., (2017). Sustainable entrepreneurial orientation: A business strategic approach for sustainable development. *Sustainability*, 9(9), p.1667.

Baía, E. and Ferreira, J. (2019), “Dynamic capabilities and performance: How has the relationship been assessed?”. *Journal of Management & Organization*, <https://doi.org/10.1017/jmo.2019.88>

Chamba, L.T., (2021). *The influence of intrapreneurship in Public Sector organisations: a case of parastatals in Zimbabwe* (Doctoral dissertation).

Cohen, L., Manion, L. and Morrison, K. (2011), *Planning Educational Research. Research Methods in Education*, Routledge, New York, NY.

Derera, K (2022) Dynamic capability: Everything you need to know. <https://www.thehumancapitalhub.com/articles/dynamic-capability-everything-you-need-to-know>

De Vries, H., V. Bekkers, and L. Tummers. 2016. “Innovation in the Public Sector: A Systematic Review and Future Research Agenda.” *Public Administration* 94 (1): 146–166. doi:10.1111/padm.12209.

Forsman, H., (2011), ‘Innovation capacity and innovation development in small enterprises. A comparison between the manufacturing and service sectors’, *Research Policy* 40(5), 739–750. <https://doi.org/10.1016/j.respol.2011.02.003>

Gratton, L. and Ghoshal, S., (2005). Beyond best practice. *MIT Sloan Management Review*, 46(3), p.49.

Hornsby, J. S., Kuratko, D. F., & Zahra, S. A. (2002). Middle managers' perception of the internal environment for corporate entrepreneurship: assessing a measurement scale. *Journal of business Venturing*, 17(3), 253-273.

Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of management journal*, 43(3), 249-267.

Pattanasing, K., Aujirapongpan, S., & Srimai, S. (2019). Dynamic capabilities and high-performance organization of hotel business: empirical investigation into world class tourism destination. *Tourism and hospitality management*, 25(2), 377-401.

Teece, D. J. (2017). Towards a capability theory of (innovating) firms: implications for management and policy. *Cambridge journal of economics*, 41(3), 693-720.

Thuy, D T., Viet Q T, Phuc V V, Pham T, Lan N, and Ho, H. 2022. Impact of Leadership Behaviour on Entrepreneurship in State-Owned Enterprises: Evidence from Civil Servant Management Aimed at Improving Accountability. *Economies* 10: 245. <https://doi.org/10.3390/economies10100245>

Urban, B., & Verachia, A. (2019). Organisational antecedents of innovative firms: a focus on entrepreneurial orientation in South Africa. *International Journal of Business Innovation and Research*, 18(1), 128-144.

Slater, S. F., & Narver, J. C. (2000). The positive effect of a market orientation on business profitability: A balanced replication. *Journal of business research*, 48(1), 69-73.

Zahra, S.A. and Covin, J.G., (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of business venturing*, 10(1), pp.43-58.

SSIRC 2023-203**THE INFLUENCE OF MACRO-ENVIRONMENTAL FACTORS ON STRATEGY IMPLEMENTATION IN A STATE-OWNED ENTERPRISE****K. Ratlhagane**

University of Johannesburg, South Africa

D.H. Boikanyo

University of Johannesburg, South Africa

ABSTRACT

Governments worldwide utilize State Owned Enterprises (SOEs) to achieve strategic objectives, bolstering Gross Domestic Product (GDP) and overall development. In developing countries, SOEs often focus on mitigating socio-economic disparities like poverty, inequality, and unemployment. In South Africa, SOEs play a vital role in delivering services and addressing socio-economic issues. These public entities, however, face unique challenges due to macro-environmental factors. This study delves into the impact of political, legal, and environmental factors on strategy execution within a Johannesburg-based water utility SOE, gathering data through semi-structured interviews with fifteen employees and employing thematic content analysis. Results highlight that bureaucracy and red tape hinder strategy implementation, introducing rigidity. While political, legal, and environmental factors ensure compliance, they also impede effectiveness. All three factors exert equal influence on strategy implementation. To surmount these challenges, the study recommends instituting flexible policies and streamlining bureaucracy. Reducing political influence on strategy implementation can enhance effectiveness. These findings offer crucial insights into SOE strategic management, emphasizing the imperative of more effective strategies. Implementing these suggestions can enhance SOEs' performance and amplify their contribution to national development.

KEYWORDS: Environmental factors, macro-environment, state-owned enterprises, strategy implementation, strategic management, water utility.

1. INTRODUCTION AND BACKGROUND

Governments worldwide have established State Owned Enterprises (SOEs) to fulfill specific mandates in various countries, as stated by Muzapu, Mandzividza, Havadi & Xiongyi (2016). The mode of operation and contribution of these organisations to economic growth depend on the political landscape and development status of the country in question. In 2003, Avsar, Karayalcin, and Ulubasoglu (2013) found that SOEs contributed 15% to economic growth in Sub-Saharan Africa, 13.2% in India, and 29.7% in China. The strategic ownership of infrastructure and sectors by these entities promotes growth in developing countries.

According to Pricewaterhouse Coopers (PwC) (2015), the influence of State-Owned Enterprises (SOEs) on the global economy has increased over the last decade, with their representation on the Fortune Global 500 growing from 9% in 2005 to 23% in 2014.

SOEs across the world differ significantly in terms of their mandate and operations, as noted by Fourie & Poggenpoel (2017). In developing countries, SOEs are often tasked with a higher focus on addressing socio-economic problems such as poverty, inequality, unemployment, and economic reform. According to Avsar et al. (2013), SOEs in developing countries have a traditional political mandate aimed at meeting the expectations of their citizens.

According to Wendy Ovens and Associates (2013), State Owned Enterprises (SOEs) were introduced in South Africa to support service delivery and promote the country's growth and development. State-Owned Enterprises (SOEs) in South Africa encompass a diverse range of sectors, including energy and utilities exemplified by Eskom, Rand Water, and the Trans Caledon Tunnel Authority, which ensure stable electricity, water supply, and bulk water infrastructure development, respectively. In transportation and logistics, Transnet and the South African National Roads Agency Limited (SANRAL) play pivotal roles in maintaining efficient transportation networks, while the South African Broadcasting Corporation (SABC) serves as the public broadcaster delivering news and entertainment. Denel SOC Ltd is instrumental in defense and aerospace technology, while Alexkor focuses on diamond mining. SOEs like the South African Post Office (SAPO) connect communities through postal and communication services, and the Industrial Development Corporation (IDC) fuels economic growth through development finance. PetroSA contributes to energy security through petroleum and gas exploration. These entities play a crucial role in helping governments advance their economies, with a dominant presence in industries such as water, minerals, financial services, and energy. The majority of SOEs in South Africa prioritize serving public interests, providing affordable access to essential services, and ensuring financial viability. However, this focus on serving the interests of citizens has often resulted in performance inadequacies when compared to the private sector (Heath & Norman, 2004). The structure of South African SOEs can be attributed to the country's political history, with a focus on reforming the conditions of the past. As stated by Bruton, Peng, Ahlstrom, Stan, and Xu (2015), SOEs are often responsible for meeting a country's macro-environmental objectives based on its character.

In recent years, State Owned Enterprises (SOEs) have been required to adopt a hybrid model and strive for competitive neutrality in the market to ensure their long-term viability. According to Haigh (2015), hybrid organisations are those that incorporate elements from multiple economic sectors into their business models and daily practices. Competitive neutrality refers to an organisation's ability to be solely reliant on its business ownership, without any external factors affecting its operational and financial performance positively or negatively (Capobianco & Christiansen, 2011).

Hitt, Ireland and Hoskisson (2018) emphasize that strategy implementation is crucial for organisations to achieve their goals and objectives successfully. Hrebiniak (2006) adds that it is more challenging than strategy formation. Hitt et al. (2018) defines strategy implementation as the execution of principles to realize an organisation's vision, including communication of the strategy to the workforce, setting goals and objectives, and involving the entire workforce in the implementation process by assigning roles and responsibilities.

Organisations lacking a structured strategic management approach are more likely to face difficulties implementing their strategies, risking the inability to outperform their competitors (Misankova & Kocisova, 2014). As a result, SOEs need to implement their strategies effectively and respond adequately to external factors (Andrews, Boyne, Law & Walker, 2011).

2. LITERATURE REVIEW

The literature review of this research focused on strategic management principles, strategy implementation and the influence of macro-environmental factors on organisations.

2.1 Strategic management

According to David and David (2017), strategic management encompasses the creation, execution, and assessment of an organisational strategy. It has transformed into a crucial factor in business prosperity since its inception. Misankova & Kocisova (2014) clarify that it consists of two independent but interconnected processes that should be implemented together: strategy formulation and strategy implementation. The fusion of these two processes is crucial for achieving strategic triumph (David & David, 2017).

2.1.1 Strategy development

Strategy development consists of the plan to achieve an organisation's growth and describes how its goals will be achieved (Indeed, 2019). The strategy development process includes creating a vision and mission statement, defining a business case and employee roles, and researching the competition (Andrews, Boyne, Law & Walker, 2011). SOEs are required to adopt the same approach mentioned above to develop credible and effective strategies. The development of strategies within SOEs in South Africa is executed collaboratively by involving key stakeholders in the process.

2.1.2 Strategy implementation

According to Indeed (2019), strategy development refers to the process of planning how an organisation will achieve its growth goals. This process involves various steps, such as creating a vision and mission statement, defining business cases and employee roles, and researching competition (Andrews, Boyne, Law & Walker, 2011). SOEs are expected to follow a similar approach to develop effective and credible strategies. In South Africa, the development of strategies in SOEs is typically a collaborative effort involving key stakeholders, including government departments, industry associations, labor unions, regulatory bodies, local communities, shareholders, and international partners.

According to Diefenback and Sillince (2011), effective strategy implementation is crucial for SOEs to achieve their goals and objectives. Since SOEs are responsible for economic growth and service delivery, they must implement their strategies properly in order to perform positively and fulfill their mandates. However, as Brinkschröder (2014) points out, strategy implementation is not always a smooth process, and organisations often encounter barriers. These obstacles can include poor understanding of the strategy and required action due to gaps in consensus between executive management and junior to middle-level employees (related to strategy), tensions and limited communication between departments leading to silo operations and duplication of effort

(related to structure), and leadership inconsistencies and misalignment that may result in employee resistance and non-commitment (related to behavior).

To overcome these challenges, organisations need to ensure that the right resources are assigned to the right functions and are provided with adequate resources to implement their strategies. In the context of South African SOEs, failure to implement the correct strategies at the right time has resulted in some SOEs underperforming and being unable to meet their service delivery mandate.

2.2 Macro-environmental factors (PESTLE factors)

The external factors that impact an organisation are referred to as macro-environmental factors, according to David and David (2017). These factors, also known as PESTLE factors, can be strategically utilized by organisations to understand and respond to external influences, as noted by Rastogi and Trivedi (2016). PESTLE factors encompass political, economic, social, technological, legal, and environmental factors present in an environment. Since organisations have no control over these factors, they must develop, implement, and monitor strategies to improve their performance and growth.

Political factors, which include government policies, statutes, and regulations, refer to the role played by a government within an economy and its sectors. Economic factors, on the other hand, pertain to aspects of the economic landscape within a country that affect organisations, such as inflation, interest rates, exchange rates, and economic growth (David et al, 2017).

Social factors constitute the circumstances that affect the social community or market, and are multidimensional and complex, particularly within the South African context, where different cultures, demographics, and population subtleties exist (Rastogi et al, 2016).

The external factors that influence an organisation are referred to as macro-environmental factors or PESTLE factors, which include political, economic, social, technological, legal, and environmental factors (David & David, 2017; Rastogi & Trivedi, 2016). Among these factors, technological factors have become increasingly important for organisations, especially in the current era of the fourth industrial revolution. Legal factors consist of laws and regulations that organisations are obliged to follow, while environmental factors relate to the impact of an organisation's activities on the environment.

To enhance their performance and growth, SOEs should focus on initiatives related to these factors. For South African SOEs, PwC (2015) recommends the following:

- In uncertain economic conditions, governments can use their ownership of strategic utilities to safeguard jobs and support organisations that may be negatively affected.
- The legal environment should promote fair competition among organisations.
- Social and environmental factors should be acknowledged by SOEs and managed effectively.
- SOEs should adopt technological advancements to improve their productivity and performance.

For this article, this study seeks to investigate some of the political, environmental, and legal factors and barriers on the implementation of the strategy in the focal SOE.

3. RESEARCH PROBLEM STATEMENT

State-Owned Enterprises (SOEs) in South Africa have grappled with issues of subpar performance, ethical lapses, mismanagement, and the enduring challenge of insufficient accountability, necessitating a concerted effort to enhance their tarnished image. Consequently, these entities must adeptly execute strategies to rectify the perceptions that have beset them. SOEs, functioning within a dynamic landscape, must adeptly navigate various macro-environmental factors and craft responsive strategies to remain effective.

The formulation and execution of strategies by key SOEs are intrinsically influenced by the PESTLE factors, both domestically and internationally. Therefore, it becomes imperative to probe the mechanisms through which these external influences shape strategy implementation within these organizations. Despite their global significance, it is noteworthy that most research efforts have predominantly centered on strategy execution within the private sector, leaving SOEs comparatively unexplored. This research endeavor seeks to delve into the repercussions of political, environmental, and legal macro-environmental factors on the implementation of strategies within the realm of SOEs, shedding light on their unique challenges and opportunities in the strategic management landscape.

4. RESEARCH OBJECTIVES

The following are the primary and secondary objectives for this research:

4.1 Primary objective

The primary objective of this research is to investigate and analyze the influence of macro-environmental factors on the implementation of strategies within a State-Owned Enterprise (SOE).

4.2 Secondary objectives

- To investigate strategy implementation within the focal organisation.
- To investigate the influence that political, environmental, and legal macro-environmental factors have on strategy implementation in a South African SOE.

5. RESEARCH METHODOLOGY

It is essential to determine the research methodology for any research project prior to its commencement (Melnikovas, 2018). This study utilized a qualitative mono-method approach to investigate the impact of political, legal, and environmental factors on strategy implementation within state-owned enterprises (SOEs). Given the nature of the research question, an interpretive approach was deemed appropriate. As Saunders, Lewis, and Thornhill (2019) explain, the interpretive paradigm is concerned with understanding an organisation's underlying values and beliefs and is used by researchers to gain insights into their research environment.

The present study employed a qualitative mono-method to conduct an extensive investigation of the political, environmental, and legal macro-environmental factors affecting the focal SOE. The research was conducted among employees of all functional levels in the organisation, and data was

collected through interviews with various sources. This approach enabled a comprehensive examination of the research topic.

For this research, purposive sampling was employed to gather data. A total of 15 employees from the focal SOE, including junior to middle level managers, were interviewed to ensure data saturation. Semi-structured interviews, with a planned duration of 30-40 minutes, were conducted as the data collection method. To ensure the accuracy of data capture and transcription, Microsoft Teams was used to record the interviews with the participants' consent. Apart from the recording, notes were taken on the interview guides.

In this research project, the researcher engaged in repeated listening and reading of the interviews and transcripts to identify commonalities in responses and group them accordingly. Thematic coding was employed to categorize information related to specific concepts using thematic descriptors. In accordance with Gibbs' (2009) framework, the coding process in this study involved systematically organizing the collected data in a structured manner to facilitate subsequent analysis. Initially, the data was reviewed thoroughly to identify recurring themes, patterns, and concepts relevant to the research objective. These emergent themes were then transformed into broad headings, representing the primary categories of analysis. To enhance granularity and precision, each broad heading was further subdivided into subcategories, capturing the nuanced aspects of the data. This hierarchical structure of coding not only aided in summarizing the information but also allowed for easy retrieval and comparison during the subsequent phases of the research process.

5.1 Ensuring trustworthiness.

The concept of trustworthiness in a research project refers to the degree of confidence one has in the methods used to collect and analyze data, as well as the quality of the study presented (Connelly, 2016). To establish the trustworthiness of this research project, four principles were used, namely, credibility, dependability, confirmability, and transferability (Connelly, 2016). Each of these principles is described below:

Credibility pertains to the truthfulness of the study and its findings (Connelly, 2016). To achieve credibility, several participants were selected, and semi-structured interviews were conducted to collect data.

Dependability is concerned with the consistency that the researcher applies throughout the research period (Connelly, 2016).

Confirmability ensures that the findings from the data-collection process represent actual issues and not personal beliefs (Connelly, 2016). By creating themes throughout the research process, confirmability was achieved.

Finally, transferability involves presenting the research in a way that allows readers to understand the conclusions and findings stated in the research paper.

5.2 Ethical considerations

According to Gajjar (2013), it is crucial to adhere to ethical principles during any research project. These principles include honesty, objectivity, respect for intellectual property, carefulness, integrity, confidentiality, and non-discrimination. To comply with these ethical principles, researchers should be transparent when discussing matters related to intellectual property, behave professionally, follow plagiarism and informed consent instructions, and respect the confidentiality of research participants.

In this research project, all participants were informed of the voluntary nature of their participation and were informed that they could withdraw from the process at any time. The purpose of the study was communicated to the participants through electronic mail and telephone communication. Prior permission was obtained from the participants before the interviews were recorded, and the audio was transcribed verbatim onto Microsoft Word. Consent was obtained from the focal organisation and from all the participants through a consent form.

To ensure the confidentiality and anonymity of the participants, their names and organisation were not disclosed in the study and were denoted as respondent 1, 2, 4, etc.

6. RESULTS AND DISCUSSION

This section outlines the research results and findings that emanated from the research interviews. The participants were all employees of the focal SOE and were all based in Johannesburg.

6.1 Demographic variables

The significance of demographic variables such as position and length of service at the focal SOE can be leveraged to gauge how employees in varying positions and tenures perceive the impact of macro-environmental factors on strategy implementation within the organisation.

- *Positions held by participants.*

The participants comprised employees from different positions within the organisation. These positions included Accounts Coordinator, Business Development Manager, Human Resources Manager, Operations Manager, Project Administrator and Coordinator, Project Manager, Risk Manager and Secretary.

- *Length of service*

The sampling requirements for the research project was that the participants had to have been employed for a minimum of one year with the current employer. Of the participants, 80% had been employed by the current employer for 3 to 10 years.

6.2 Findings

This section outlines the analysis of the responses which were received from the research participants.

6.2.1 Strategy implementation drivers

When asked about the key drivers of strategy implementation, the following responses were received, among others:

- "Human resources, financial resources, organisational structure, organisational policy and employee commitment" – Respondent 3
- "The people to drive it...financial resources...employee commitment" – Respondent 8
- "Finance as a driver as it is a very important aspect of implementing a strategy; human resources as well, as we need skilled people, right; people in the right roles within the implementation of the strategy...the structure of the organisation, how well the organisation is structured in order to deliver or reach its specific goal" – Respondent 9
- "The human resources department...structure of the organisation...technological aspects" – Respondent 12

In responding to the question on the drivers of strategy implementation within the focal SOE, it was evident from the response of the participants that the key drivers of strategy implementation include human and financial resources, the organisational structure, the commitment of the employees and the policies that exist within the organisation.

All these **strategy implementation drivers** need to work in synergy and harmony to drive strategy implementation within the organisation. Strategy implementation cannot take place in isolation or by implementing one aspect within the organisation.

6.2.2 Influence of organisational environment on strategy implementation

When asked about how the environment in the organisation influences strategy implementation, the participants responded with the following, among others:

- "We've got quite a number of red tapes as being a state-owned entity" – Respondent 1
- "It's an environment with limited fluidity" – Respondent 2
- "It's fairly conducive" – Respondent 3
- "So, there's a lot of processes and there's lots of chains of command in order for something to be implemented" – Respondent 7
- "We need to work within the confines of various legislation " – Respondent 8

The above responses from the participants provide an indication that the focal SOE is bureaucratic in nature and does not allow for flexibility in the implementation of strategy. This is because of the regulations that the organisation is required to adhere to, which in turn influence the policies and processes that the organisation has put in place, and which guide the strategy implementation process.

The **bureaucratic environment** of the organisation may impede the strategy implementation process, which may result in strategy implementation delays and employee complacency and even decreased employee engagement and morale because of institutional barriers.

6.2.3 Strategy communication

The participants were asked about the way strategy is communicated within the organisation. The responses included the following:

- "Through our formal channels via the communications department", ...formal memorandum communication" – Respondent 3
- "It is communicated through us through our leadership Top 200 and through communications" – Respondent 5
- "The Chief Executive would communicate this to his direct reports, which would be the executive committee who would cascade this to all levels of management and then management would cascade this to employees at different business units and departments" – Respondent 7
- "Through divisional engagements, employees would know what it is that is required for them" – Respondent 6

The responses above point out that the focal SOE has **formal channels of communication** to share its strategy to the workforce. This ensures that the strategy is communicated to all departments across the organisation and essentially to all employees.

This is positive for the organisation as it ensures that the strategy is not only known and understood by a few people within the organisation but by the entire workforce. It additionally allows the different departments and employees to collectively work towards the attainment of the strategic goals and objectives of the organisation.

6.2.4 Influence of the political environment on strategy implementation

The participants were asked about the influence that the political environment has on the implementation of strategy within the focal SOE. The following responses were provided by the participants, among others:

- "If the political leadership affiliated with the organisation supports your strategy, then it makes the implementation process easier because whatever that you would like to implement, you've got buy-in from the upper levels of executives in the political space" – Respondent 1
- "Political effect is really have a strong influence on an organisation since it's a schedule 3B. They are accountable and liable to bodies like National Treasury and the Ministry" – Respondent 7
- "Since we report to our shareholder, our sole shareholder, which is the government. So, any change in government changes, changes in policies, changes the way of working, affects the implementation of our strategy, as we have to

- make sure that our shareholder, which is government, has a buy-in" – Respondent 9
- "If there is a change at the top then the strategy would need to be readjusted" – Respondent 14

It can be deduced from the above responses that **political leadership and environment** influence strategy implementation in the focal SOE for several reasons. The main reason is that the focal organisation is a state-owned entity and ultimately reports to the Ministry, which in turn reports to the Presidency.

The political influence on the organisation's strategy implementation process may be positive or negative in nature. The organisation will however be inclined to respond to any political factor that is of relevance at any time.

6.2.5 *Influence of the legal environment on strategy implementation*

The participants were requested to give their views on the influence that the legal environment has on strategy implementation within the organisation. The below responses were received from the participants, among others:

- "There's a lot of regulation: standards and labour laws and competition and compliance issues".
"...there are strong systems in place to oversee compliance and governance" – Respondent 3
- "We have to make sure that we everything that we do, we do it in a right way. Legally, we must follow all the laws and regulations" – Respondent 9
- "Legal and regulatory factors are basically laws, rules and regulations that governs the conduct of individuals".
"So, they play a significant role in determining the success of our strategy implementation, because if we fail to comply with these applicable laws and regulations, you know, there can be a downturn in terms of penalties, fines, lawsuits".
"They act as a guideline to protect us from not going into risk issues. But can sometimes delay strategy implementation because of the red tape that we sometimes experience" – Respondent 12

Legal factors, based on the above responses from the participants, influence the strategy implementation process within the focal SOE. The legal factors refer to the **laws and regulations** that govern the organisation to ensure that it is run within the confines of the law.

These laws and regulations can have a positive or negative influence on the organisation's strategy implementation process as they can either promote it or delay it. The main objective of these factors is to protect the organisation and all the stakeholders that are affected by the organisation.

6.2.6 *Influence of the environment on strategy implementation*

The participants were asked to provide an account of the influence that the environmental factor had on strategy implementation. The below responses were some that were provided by the participants.

- "...So, we need to be as an organisation being cognizant that we comply to all the environmental legalities, if I can put it like that, and failure to adhere to that can cause a whole lot of disruptions" – Respondent 1
- "To ensure compliance to one of the triple-bottom-line factors. In other words, the environment will increase its credibility" – Respondent 3
- "There is a certain quality standard that we have to adhere to at the moment, which relate to the environmental factors" – Respondent 7
- "To ensure compliance to environmental legislation" – Respondent 13

The organisation is required to be aware of environmental factors that affect the organisation and align its strategy to these factors. **Compliance** with different quality standards and regulations is critical in the daily operations of the organisation, to avoid any form of audit finding/s. Adherence with environmental standards can increase an organisation's appeal to consumers and to be viewed as being credible and ethical.

6.2.7 *Value-add of the macro-environmental factors on strategy implementation.*

The value-add of the three macro-environmental factors (political, legal, and environmental) was questioned and the participants provided the below responses.

- "They bring the structure governance" – Respondent 1
- "Help us avoid fruitful and wasteful expenditure, ensure where we pay our suppliers on time, that definitely would avoid lawsuits" – Respondent 6
- "They add value in a very positive way because they can really direct how strategy is formulated and implemented" – Respondent 7

The three macro-environmental factors are beneficial to the organisation's strategy implementation processes. They allow a strategy to be implemented within the mandate of the political environment in which the organisation operates and promote **good governance**. The factors additionally encourage a structured implementation process that is executed lawfully, considering various regulations, standards, policies and practices.

6.2.8 *Impact of the macro-environmental factors on strategy implementation*

The impact of the three macro-environmental factors (political, legal and environmental) was explored. The participants included those listed below.

- "Political creates delays but has social buy-in".
"Legal creates a lot of bureaucracy but adheres to other multiple national objectives."
"Environmental are an attempt to sustain the resources that we currently have for future generations" – Respondent 5
- "They can also delay certain strategic implementation processes" – Respondent 7

The above responses provided by the participants indicate that the impact of the three macro-environmental factors have **pros and cons** in the strategy implementation process.

They may protect the organisation and allow it to adhere to certain mandates but also have the potential to delay strategy implementation. Organisations need to create a delicate balance when implementing their strategies and need to take note of the macro-environmental within their areas of operation.

6.2.9 *The most influential macro-environmental factor on strategy implementation*

The participants were requested to identify the macro-environmental factor that has the biggest influence on the focal organisation's strategy implementation process. The below responses were provided, amongst others:

- "Political, as we are a state-owned entity" – Respondent 1
- "Environmental and legal".
"Strikes may impact essential workers and affect business operations" – Respondent 2
- "Political because once we have bought in from the Minister it is easy to implement the strategy" – Respondent 6
- "Legal; from a legislative perspective you are allowed to do certain things from a strategic perspective, because if it is maybe some instruction from Treasury or something from a PFMA perspective" – Respondent 8
- "All three play a major role" – Respondent 10
- "political" – Respondent 14
- "Political and legal factors, because we are imposed through government and they are imposing various legal regulations on business in laws" – Respondent 15

The responses above indicate that there is no one factor that is solely more influential than the other in strategy implementation. The three macro-environmental factors are all **factors of influence** within the focal organisation, and all play a different role in the implementation process.

6.2.10 *Evaluation of strategy implementation*

The participants were asked to provide an account of how strategy implementation is evaluated in the organisation. The responses included those mentioned below:

- "It is evaluated through the performance scorecards, performance management system to evaluate if we meet the short term, medium-, and long-term objectives" – Respondent 1
- "It would normally be done through audit to see whether it aligns to political, legal and environmental factors" – Respondent 13
- "Balance scorecard" – Respondent 15

Strategy evaluation is important to ensure that the organisation measures the performance of the organisation. The participants understand that the balanced score card is used for this purpose to measure performance in line with the customers, finances, internal processes, and capacity development initiatives of the organisation.

6.3 Themes and sub-themes emanating from the primary data.

The themes and sub-themes that emanated from the primary data can be summarized as follows:

Table 4.4: Themes and sub-themes from interviews

| THEMES | SUB-THEMES |
|------------------------------------|---|
| BUREAUCRACY AND RED TAPE | <ul style="list-style-type: none"> • High level of red tape • Limited flexibility and agility • Many processes and chains of command |
| COMPLIANCE | <ul style="list-style-type: none"> • Practising good governance; Political leadership and influence • Emphasis on adhering to laws and regulations. • Emphasis on protecting the environment |
| IMPACT OF MACRO-ENVIRONMENT | <ul style="list-style-type: none"> • The factors have a positive and negative impact on strategy implementation |
| SPHERES OF INFLUENCE | <ul style="list-style-type: none"> • Political, legal, and environmental systems |

7. RECOMMENDATIONS

To enhance the organisation's responsiveness and efficiency, it is recommended that organisational agility be introduced. This can be achieved through the adoption of flatter organisational structures and flexible policies that enable quick decision making and response times.

Another recommendation is to phase out rigid statutes and replace them with agile laws. For instance, procurement laws that typically take several months to finalize could be revised to reduce turnaround times and improve service delivery.

Furthermore, decreasing political mandates and influence on the operations of SOEs is suggested. This would enable SOEs to function more like private enterprises, with a greater focus on achieving financial goals and improving overall performance.

The organisation should closely monitor the external environment to identify changes that could impact its operations. This can be done through regular market research, competitive analysis, and monitoring of regulatory changes.

To mitigate the impact of macro-environmental factors on strategy implementation, the organisation should develop contingency plans that can be implemented quickly in response to changes in the external environment.

Regular communication of the organisation's strategic objectives to all employees is crucial to ensure they understand their roles in achieving them. Communication channels such as town hall meetings, newsletters, and internal social media platforms should be utilized to achieve effective communication. Moreover, developing and executing a strategy for communication with external stakeholders is equally important.

8. CONCLUSION

Over the course of several years, the intricate relationship between strategy implementation and macro-environmental factors has been a pivotal area of exploration within the realm of strategic management, particularly in the context of State-Owned Enterprises (SOEs) in South Africa. Understanding this intricate dynamic holds paramount importance, given that these organizations must navigate a multifaceted landscape of macro-environmental factors, each bearing distinct opportunities and challenges that can significantly impact their strategic pursuits.

The findings uncovered in this research project resonate with a growing body of literature, underscoring the notion that macro-environmental factors can exert both positive and negative influences on strategy implementation within SOEs. These effects are often unpredictable, necessitating a continual state of preparedness within these organizations to respond adeptly.

Notably, the study participants articulated a nuanced perspective, acknowledging that these macro-environmental factors can sometimes introduce bureaucratic complexities and regulatory hurdles. Simultaneously, they acknowledged the critical role these factors play in upholding corporate governance and ensuring compliance within the unique context of SOEs in South Africa. Consequently, these organizations find themselves at a strategic crossroads, requiring a high degree of adaptability and agility to effectively address the multifaceted implications of macro-environmental factors specific to their operational landscape.

In response to these intricate challenges and opportunities, it is imperative for South African SOEs to engage in profound internal discussions. These deliberations should center on tailoring their organizational structures and refining policies and processes, especially those that have the potential to hinder the expeditious execution of strategic initiatives. By nurturing adaptability, strengthening compliance mechanisms, and cultivating a culture of strategic resilience, SOEs in South Africa can adeptly navigate the intricate terrain of macro-environmental factors, ultimately securing their strategic objectives in an ever evolving and uniquely challenging environment.

REFERENCES

- Andrews, R., Boyne, G. A., Law, J., & Walker, R. M. (2011). *Strategy implementation and public service performance*. London: Sage Publishing.
- Avsar, V., Karayalcin, C., & Ulubasoglu, M. A. (2013). State-owned enterprises, inequality, and political ideology. *Economics and Politics*, 25(3), 387.
- Brinkschröder, N. (2014). *Strategy implementation: Key factors, challenges and solutions*. Paper presented at the 4th IBA Bachelor Thesis Conference, Enschede.
- Bruton, G. G., Peng, M. W., Ahlstrom, D., Stan, C., & Xu, K. (2015). State-owned enterprises around the world as hybrid organizations. *The Academy of Management Perspectives*, 29(1), 92.
- Capobianco, A., & Christiansen, H. (2011). Competitive neutrality and state-owned enterprises: Challenges and policy options. *OECD Corporate Governance Working Papers*, 1(1).
- Connelly, L. M. (2016). Trustworthiness in qualitative research. *Medsurg Nursing, The Journal of Adult Health*, 25(6), 435.
- David, F. R., & David, F. R. (2017). *Strategic management: A competitive advantage approach, concepts and cases* (16th ed.). London: Pearson Education.
- Diefenbach, T., & Sillince, J. A. A. (2011). Formal and informal hierarchy in different types of organization. *Organization Studies*, 32(11), 1515.
- Fourie, D., & Poggenpoel, W. (2017). Public sector inefficiencies: Are we addressing the root causes? *South African Journal of Accounting Research*, 31(3), 169.
- Haigh, N. (2015). *Understanding Hybrid Organizations*. Retrieved from <https://cmr.berkeley.edu/2015/06/hybrid-organisations/>.
- Nguyen Heath, J., & Norman, W. (2004). Stakeholder theory, corporate governance and public management: What can the history of state-run enterprises teach us in the post-Enron era? *Journal of Business Ethics*, 53, 247.
- Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2018). *Strategic management: Concepts and cases: Competitiveness and globalization*. Cengage Learning.
- Hrebiniak, W. (2006). Obstacles to effective strategy implementation. *Organizational Dynamics*, 35, 12.
- Indeed. (2019). *Understanding the basics of strategy development*. Retrieved from <https://www.indeed.com/career-advice/career-development/basics-of-strategy-development#:~:text=Strategy%20development%20is%20a%20company's,works%20toward%20the%20same%20goals.>
- Kelemen, M., & Rumens, N. (2012). *An introduction to critical management research*. London: Sage Publishing.

Melnikovas, A. (2018). Towards an explicit research methodology: Adapting research onion model for future studies. *Journal of Future Studies*, 23(2), 29.

Misankova, M., & Kocisova, K. (2014). Strategic implementation as part of strategic management. *Social and Behavioral Sciences*, 110, 861.

Muzapu, R., Mandzividza, K., Havadi, T., & Xiongyi, N. (2016). Managing state-owned enterprises (SOEs) and parastatals in Zimbabwe: Human resource management challenges - drawing lessons from the Chinese experience. *Management Journal*, 6(4), 89.

Nguyen, T. (2015). The interconnection between interpretivist paradigm and qualitative methods in education. *American Journal of Educational Science*, 1(2), 24.

PricewaterhouseCoopers. (2015). State-owned enterprises: Catalysts for public value creation? Retrieved from <https://www.pwc.com/gx/en/psrc/publications/assets/pwc-state-owned-enterprise-psrc.pdf>.

Rastogi, N., & Trivedi, M. K. (2016). PESTLE Technique – A tool to identify external risks in construction projects. *International Research Journal of Engineering and Technology*, 3(1), 384.

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). *Understanding research philosophies and approaches* (8th ed.). London: Pearson Education.

Wendy Ovens and Associates. (2013). The role and significance of state-owned enterprises, public entities, and other public bodies in the promotion of urban growth and development in South Africa. Prepared for IUDF Panel of Experts.

SSIRC 2023-208**MANAGING EMPLOYEE PERFORMANCE: A FOCUS BEYOND ORGANISATIONAL FACTORS****E. M. Chigo**

University of South Africa, South Africa

ABSTRACT

Organisations considered to be successful worldwide continually work hard to recognise and manage the aspects that impact employee performance and behaviour. Due to rising competition, a need to respond effectively to rapidly changing operational conditions and employee requirements. Accordingly, such organisations are pressured to identify those factors that affect employee performance. No matter how many interventions were implemented over decades to improve performance management (PM) processes, the PM proved to do nothing to improve performance. This is because employee performance does not take place in a vacuum, but all other factors also come into play. Nevertheless, to improve employee performance, organisations focus more on only organisational factors while paying less attention to non-organisational factors that impact employee performance. This paper, therefore, aims to identify and make an awareness of factors that are not within the organisation but have the potential to hamper performance. Secondary data were collected through a literature review. Journal articles and books reporting on internal and external factors influencing employee performance were scrutinised. Such factors were discussed, and remedial action on the side of the internal factors was discussed. Changes in the socio-demographic factors in the target market, such as generational change, age, and ethnicity, affect employee performance. Personal life factors such as poor work-life balance, and drug and alcohol abuse were also found to influence employee performance negatively. To improve employee performance, organisations should focus on addressing organisational factors and move beyond that by also addressing factors beyond the organisation. Trust and employee engagement are crucial to revealing non-organisational and personal factors influencing each employee's performance.

KEYWORDS: Employee performance, management, organisational factors**1. INTRODUCTION**

Organisational success depends mainly on the effectiveness of the different resources it utilises. Such resources include people, finance, material, land, machinery, and energy, which contribute to achieving the set targets and organisational goals (Goshu & Kitaw, 2017). Among all these resources, employees form a critical portion of the organisation and form the key team that works toward reaching the organisation's goals (Al-Omari & Okasheh, 2017). A common trend nowadays is to hand various tasks over to artificial intelligence. Artificial intelligence cannot match a human mind regarding judgment (Mamun & Khan, 2020). Accordingly, observing and managing employee performance becomes substantial (Almatrooshi, Singh & Farouk, 2016). Performance can be defined as "the result of work that can be achieved by employees of an organisation both individually and in groups" (Diana, 2021:547). Essentially,

performance can be explained in two ways: associating performance with realising results and considering how the results were achieved (Aguinis, 2019; Moosa, 2021, Wan, 2020). This means employees can be judged as performing if, for instance, they produce the number of units expected of them; or they display competencies and behaviours expected of them (Aguinis, 2019; Moosa, 2021). Determining why employees perform poorly is crucial because to address poor performance, the cause must first be identified (Moosa, 2021; Wörnich et al., 2018). Wörnich et al. (2018) further argue that effective management is when managers stay alert for employee performance problems and acknowledge that various root causes can cause production problems. Therefore, uncovering the true root causes of performance is of paramount importance.

Metrics that organisations use to gauge performance include but are not limited to improved customer service, productivity and organisation's profitability quality, volume/quantity, fewer accidents, reduced production time, and increased market share (Dougall, 2015; Mamun & Khan, 2020; Moosa, 2021; Pradhan & Jena, (2017; Tuffaha, 2020; Valamis Group, 2023). Most of the time, when employees fail to achieve the targeted performance, a root cause can be identified (Valamis Group, 2023). Sometimes employees find it difficult to discuss some of these root causes with the manager during the performance appraisal meeting to avoid being victimised or protect the employee-manager relationship. For instance, in a recent study conducted by Valamis Group, 48% of the participants indicated that they are uncomfortable to fully share their performance issues with their manager in between the performance appraisal cycle (P.A.); and 68% felt managers neglect their concerns throughout until the performance appraisal (Valamis Group, 2023). This means that underperforming employees may not fully share the root causes of their underperformance, especially if the root causes come from outside their workplace. According to Aguinis (2019), usually, when the organisation spots unusual or unwanted performance from employees, they focus on scrutinising factors such as the individual performer (their skills, experience etc.), job environment and management (relationship with core workers and the manager), as well as or HR. practices (training opportunities, etc.). (Aguinis, 2019; Diamantidis & Chatzoglou, 2019).

It is easy to blame employees for their poor performance, especially if it is continuous even after several performance improvement interventions the organisation has brought forward. Therefore, given that the performance improvement intervention factors can continuously fail to address employee poor performance, it is important to scrutinise internal and external factors when managing employee performance (Valamis, 2023). While this article acknowledges the relevance of addressing the internal factors that affect employee performance, it further argues that there are external factors that organisations must also investigate their effect on employee performance and address to improve employee performance. Such external factors include but are not limited to demographic changes in the market, individual employee economic factors (dependants' unemployment and Black tax), social factors such as COVID-19, Natural disasters (floods, draught, etc.) , health issues, family factors, use of drugs and alcohol, and mental health issues (Moosa, 2021: Indeed, 2023). This article will also construct a conceptual framework from the relevant literature to identify external factors that must be investigated when addressing poor performance. Three primary objectives are presented in this article. The first objective is to present

a description and summary of how the author approaches performance management as guided by relevant theories as documented in the literature review selected for this article; second, factors that influence employee performance will be discussed as the second objective, and finally, the third objective will be the construction of a proposed framework that includes both internal and external factors that influence employee performance.

2. Theoretical framework

2.1. Expectancy theory

The main argument of this theory is that the employee's decision to perform solely depends on the employee's motivation level, which in turn depends on three factors: valence, instrumentality, and expectancy. According to this theory, employees will perform as expected if they know that first, they will get a reward (expectancy). Second, they believe that their performance will enable them to attain the reward (instrumentality), and finally, they assume that the reward will be meaningful (Armstrong, 2018; Chigo, 2021; Wörnich et al., 2018). The argument of this paper emanates from the second standpoint of the expectancy theory, namely, instrumentality. This paper contends that if employees perform poorly due to factors outside the organisation (which the employer does not know or neglects), they will choose not to put effort into improving performance. Their main reason not to try harder would be that even if they can put more effort, they would still perform the work poorly if they felt that factors leading to their poor performance are not addressed, especially those neglected as they take place outside the organisation.

2.2. Herzberg's two-factor theory

Herzberg's two-factor theory argues that two types of factors determine employee performance, namely intrinsic-motivational factors such as recognition, work tasks, and responsibility, and extrinsic-hygiene factors, job security, working conditions, or salary (Wörnich et al., 2018). According to this theory, employees will only be happy with their jobs and positions and be motivated to perform if they feel the presence of intrinsic motivation, regardless of whether extrinsic hygiene factors are present. This article argues that employees will perform poorly if the organisation's performance management pays too much attention to the extrinsic-hygiene factors within the organisation while neglecting intrinsic-motivational factors outside the organisation.

3. LITERATURE REVIEW

Measuring Individual and organisational performance

Two common managerial proverbs say: "You can't improve what you can't measure" and "What gets measured gets done." The main aim of organisations in hiring people is the anticipation that people will generate "productivity" that exceeds the "cost" in terms of compensation for hiring them (Chigo, 2021). Therefore, managing and measuring employee performance becomes inevitable. This is where employee performance management comes in, which according to Agarwal (2020) and (Rostam, 2019), is one critical concern affecting goal attainment and sustained organisational success. Managing employee performance enables managers to recognise poor performance and address it while reinforcing good performance by paying incentives to good performers (Rostam, 2019). Aguinis (2019) is of the same view as he contends that the

performance management process serves as a communication tool to inform employees how they are performing so that good and poor performers can be differentiated.

Ideally, performance management aims to link employee goals with those of the organisation, as well as to continuously track if employees are on the right track to achieve organisational goals (Aguinis, 2019; Chartered Institute of Personnel and Development 2022 (CIPD); Sridharan 2022; Wörnich et al., 2018). Linking organisational goals with those of employees starts with job analysis, where job descriptions and specifications are determined (Aguinis, 2019). Once job descriptions and specifications are stated, key performance indicators (KPIs) are set to link employee performance to organisational and departmental goals, which will be measured through key performance indicators. (Maloa, 2021). To be able to measure employee performance, the manager and employee hold a performance agreement meeting at the beginning of the performance appraisal cycle to discuss KPIs, Dougall (2015:1) defines KPI as "those areas of performance that are reflected explicitly or implicitly in the vision and strategies of an organisation and reflect its critical success factors". Consequently, if the manager charges a subordinate with poor performance, they will use key performance indicators (KPIs). KPIs serve as a signal demonstrating non-performance on the part of the subordinate (Maloa, 2021), and to weigh expected inputs/activities, and targets, as well as keeping source documents as proof of performance (Aguinis, 2019; Bucăța, 2018), just in case employee an employee challenges the performance measurement outcomes (Aguinis, 2019; Bartlett, 2021).

Internal factors that influence employee performance and how employers address them.

Many factors impact employees to perform either well or poorly. Some occur both inside and outside the organisation. Aguinis (2019) refers to such factors as "determinants of performance" because they can predict whether employees will perform as expected. Therefore, the employer must first establish what causes employees to perform poorly so that the correct interventions can be applied. The following are some of the internal factors that impact employee performance:

Lack of declarative knowledge

Aguinis (2019) describes declarative knowledge as details about actualities, rules, standards, and processes. Thus, employees who perform poorly because of a lack of declarative knowledge can be enrolled in courses that develop their proficiencies, knowledge, and competencies (Aguinis, 2019; Bustamam et al., 2020; Moosa, 2021). Further, Wörnich et al., (2018) contend that factors such as technological change may require alterations in abilities, expertise, and job roles. Therefore, updating employee skills becomes crucial for employees to perform as expected. The study by Tuffaha (2020) also found the significance of analysing the current skill gap and finding strategies to close such a gap to improve performance.

Lack of procedural knowledge

Underperformance can be caused by employees' lack of hands-on experience in their jobs, which according to Aguinis (2019), is a lack of procedural knowledge. , Therefore, if this is the case, employees may be assigned mentors and coaches to address such deficiencies to improve poor performance (Moosa, 2021; Wörnich et al., 2018). Employees can also indicate through a

developmental plan during the performance appraisal meeting what intervention will be of value to improve their performance (Chigo, 2021).

Lack of motivation

In some cases, underperformance occurs due to a lack of motivation (Aguinis, 2019, Mamun & Khan, 2020, Moosa, 2021), and increasing motivation factors can help to address poor performance (Kuswati, 2020). There is hence a burning interest on the side of management, practitioners, and Industrial psychologists to investigate factors that can lift employee motivation to reach high productivity and to find the relationship between the two (Alase & Akinbo, 2021). Forson et al. (2021) define motivation as "the act of moving people triggered by the provision of some incentives to achieve a desired goal". To address motivation issues, employers commonly use rewards to enhance motivation and ultimately address employee performance. However, it is noteworthy to understand that human beings are unique, and everyone may get motivated by different things to work hard and dedicate all their energy to their company (Indeed, 2023). Therefore, rewards can only motivate if employers know that employees are different. and that they have individual differences regarding which rewards motivate them and which do not (Mamun & Khan, 2020).

Job design

Once employees perceive how their jobs are designed not designed the way they that interest them, they can be bored and perform poorly (Forson et al., 2021). Job design refers to 'the content and organisation of one's work tasks, activities, relationships, and responsibilities' (Parker, 2017: 662). Some of the characteristics of job design are workload, promotional opportunities, skills and abilities used, repetition of tasks, and meaningfulness of tasks (Kapur, 2018). Job design that enhances and encourages good performance is one great in positive job features, such as independence, social support, job feedback, and support, which contains little to minimal job strains (Knight & Parker, 2021). The study of Knight & Parker (2021) revealed that work redesign initiatives are effective when attempting to increase or improve employee performance.

Working environment

Considerable research on how the physical work environment influences task performance and how it impacts on work behaviours has been recorded in the literature (Al-Omari & Okasheh, 2017). Work environment includes factors such as job safety, security, working hours, policies and rules, organisational culture, human resources practices, as well as manager support (Aguinis, 2019; Saidi et al., 2019) as well as organisational HR practices. Other work environment factors include inflexibility of the working environment and work noise distraction (Projectopics, 2019). According to Saidi et al. (2019) and Projectopics (2019), when employees perceive a lack of job security and safety and feel that they are physically and emotionally unfit, they will have the desire to reduce work efforts, resulting in decreased performance and outcomes. Therefore, organisations should aim to address negative perceptions by employees towards the work environment by addressing issues arising in this environment.

Performance management system design

A PM management system should be designed in such a way that it embraces a culture of providing regular feedback to employees to improve performance (Bussin, 2017; Meyer & Kruger-Pretorius, 2018; Nikolić, Perić & Bovan, 2020; The Chartered Institute of Personnel and Development (CIPD), 2022). Once employees start executing their tasks toward the accomplishment of goals. Performance feedback becomes vital as it can guide managers in effectively reinforcing required behaviour and discovering areas that may need improvement (Moosa, 2021). For the feedback to help employees improve performance, it should be precise, positive, and helpful, as well as timely provided to help employees improve their performance (Nikolić, Perić & Bovan, 2020). According to Bartlette (2021), unbiased and honest performance feedback motivates employees to improve employee performance. Therefore, the relationship between the manager and employee should be strengthened and built on the foundation of trust between the two parties.

The above-discussed factors that influence employee performance occur within the organisation and are within the employer's control to address them. However, employee performance is influenced not only by internal factors but also by external factors beyond the control of the employee and employer (Bartlette, 2021; Valamis, 2023).

Factors outside the organisation influencing employee performance.

Work-family conflict and stress

Warroka (2015) asserts that a work-life balance becomes crucial with more women entering the workplace chasing both work and careers. According to Widayati et al. (2021), work-family conflict occurs when an employee is unable to fulfill various roles because work often hinders the family plans or, conversely, the family hinders work schedules so that it is not easy for employees to separate their time between the two roles. If work-life balance is not achieved, it can contribute to poor employee and organisational performance, high faults rate and poor quality of work, and absenteeism due to health problems such as anxiety, emotional illness, depression, and other forms of sicknesses such as regular headaches; overweight and cardiac seizures (Ajayi, 2018; Bartlette, 2021). The study by Widayati et al., (2021) confirmed a clear relationship between work-family conflict and employee performance caused by the discrepancy between behaviour styles and those anticipated by both groups (work and family).

Abuse of drugs or alcohol

The abuse of drugs and alcohol by employees has always been a problem, negatively impacting employees' health, work performance, behaviour, and security (CIPD, 2020). Employees who abuse drugs or alcohol can successfully hide their addictions to avoid embarrassment and victimisation, which means managers may take a while to notice such behaviours, leading to chronic poor performance (CIPD, 2020). Although several South African acts regulate how to manage drug and alcohol addictions in the workplace (Koegelenberg, 2020), intervention might come late if it takes too long for the manager to detect such behaviour.

Demographics changes in the market.

Demographics can help organisations to discover consumers' preferences or buying behaviours (Suttle, 2019). There is an emerging trend that organisations serve consumers that diversify, with different needs (Lobaugh et al., 2019). The major apparent diversity is the heterogeneity of consumers in terms of generation, ethnicity, and race (Lobaugh et al., 2019). Therefore, if the organisation cannot keep up with the changes or even influence them, they will affect the performance in terms of profitability (Aguinis, 2021). Cutting performance incentives will affect employees differently. For instance, once the profitability of the organisation drops, the organisation may be unable to pay out performance incentives to outstanding performers, resulting in unmotivated employees, further leading to a drop in their work performance to maintain a balance between their performance and what they receive as a compensation (Chigo, 2021). On the other hand, employees who have been hit hard by social ills such as COVID-19, unemployment of dependants, crime, and low-income family backgrounds, and natural disasters such as hail, floods and drought will be hit hard by the cut of performance incentives and ultimately resulting in employees' poor performance (CIPD, 2023).

4. METHODOLOGY

The study followed a systematic literature review which was planned and executed with care. Journal articles published earlier examining factors influencing poor performance within the organisation and recommended interventions by employers were scrutinised in various sectors were identified and scrutinised. Purposefully, only articles that were published in the past ten years were found to be reporting on recent trends and were found relevant. Further, publications that investigated factors influencing employee performance beyond the employer's control were also scrutinised.

4.1 Research design and scientific literature search

A hermeneutic outline was implemented to search, categorise, plan, and critically evaluate the literature to create themes (Boell & Cecez-Kecmanovic, 2014). Various electronic bibliographic databases and databases from different disciplines and websites were used to retrieve the journal articles. Such database includes Academic journals, Google Scholar, Organisation blogs, Organisations' websites, Emerald Insight and AOSIS. The keywords that were used in a search engine were "Internal factors influencing employee performance" and "External and personal factors influencing employee performance". Using these keywords, the researcher identified and retrieved themes to create more view into internal and external factors influencing employee performance. All the concepts were recorded in an MS Excel spreadsheet to be screened further. Further scrutiny was done on the spreadsheet was perused to classify applicable previous research that is in line with the objectives of the current study. The relevant articles were selected carefully and purposively to ensure that only articles that can help achieve the objectives of this study are scrutinised. Consequently, the unit of analysis in this article focussed on internal and external factors influencing employee performance. 95% of the selected articles were published in the past five years or less. Thus, the review study was ideally built on recent empirical studies that focused on internal and external factors influencing employee performance.

4.2. Data analysis

Thematic analysis was utilised to analyze data. Braun and Clarke (2006, p. 79) define thematic analysis as “a method for identifying, analyzing and reporting patterns (themes) within data”. To analyse the selected documents for this study, themes were identified, and various codes were developed based on the two research questions. in relation to both episodes of the video data. The establishment of these codes was inductive, as they were developed based on themes that emerged from the literature in the selected documents.

5. FINDINGS AND DISCUSSION

The following framework that combines internal and external factors that influence employee performance was constructed from the themes created from the literature review. The literature revealed several factors that contribute to employee poor performance, which if managed and addressed properly can be corrected, and employee performance can improve. However, there are those factors that take place outside the organisation that are not in the control of the employer, which employees are not comfortable sharing with their managers (Valamis Group, 2023). Such factors are difficult to address because, first, they take place outside the organisation, and second, some of these factors are an embarrassment to employees, therefore, they are not disclosed (Fletcher, 2022). These factors are illustrated in the framework below.

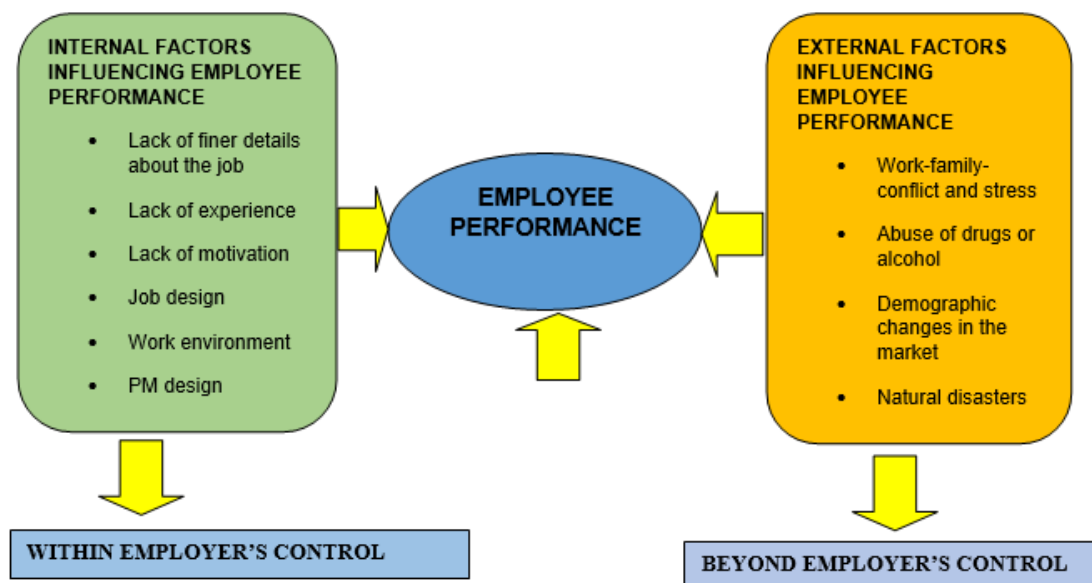


Figure 1: Framework combining internal and external factors that influence employee performance. source: (Author)

From this paper, two themes emerged, as displayed in the above framework, namely, internal factors influencing employee performance and external factors influencing employee performance. The most important discovery from the literature and the above framework is that managers can address internal factors, whereas external ones are beyond the manager's control. However, to address poor performance, the most important aspect for managers to do is first to

determine the root cause of poor performance, and then the interventions can be introduced. According to Aguinis (2019), it can cost an organisation a lot of money if the wrong interventions are applied when dealing with poor performance. Moosa (2021) adds that poorly taking employees for training after they performed if the root cause of poor performance is, for instance, poor performance management system design. In such a case, monitoring and evaluating the performance management system becomes vital to scrutinise areas that need improvement in the system (Moosa, 2021) or motivation. Based on Herzberg's two-factor theory, the organisation must also consider their employees' diversity and introduce rewards that will suit everyone (Mamun & Khan, 2020). Finally, Saidi et al., (2019) and Projectopics (2019) argue that the working environment can also contribute to poor performance due to the differing personalities of diverse individuals. This can be moderated through the emphasis on the organisational culture (Adebayo, 2023).

The external factors that influence employee performance were identified from the literature as the second theme. Ajayi (2018) and Bartlette (2021) identified factors such as anxiety, emotional illness, depression, and other sicknesses such as regular headache, overweightness and cardiac seizures as major contributors to poor performance. According to Warroka (2015) and Wadayati (2021), all these conditions could be due to work-family conflict that occurs when an employee cannot balance work and family roles. Another issue is the abuse of alcohol, which could be caused by employees struggling to cope with the workload or long working hours (CIPD, 2020). Although this issue can be addressed through various organisational interventions such as wellness programmes and counselling (Koegelenberg, 2020) warn that sometimes such interventions may be introduced too late because employees tend to hide such behaviours. The last factor beyond the employer's control is the changing of the demographics in the organisation's target market, such as generational change, changing needs and preferences, income levels, etc. (Suttle, 2019; Lobaugh et al., 2019). This impact on the profitability of the organisation. Therefore, it may lead to an inability of the organisation to reward performance. This may result in dropping employee motivation levels and performance (Moosa, 2020).

6. CONCLUSION

Poor performance can be detrimental to the organisation if not managed well. However, it is not always in the hands of the employer to curb employee poor performance. It is clear from the literature that internal factors influencing employee performance are within the employer's control. Therefore, once the root causes of poor performance are identified, technics to remedy poor performance can be introduced. Unfortunately, factors influencing employee performance that emerge from outside the organisation can be difficult to control. However, trust can be built between the manager and employee to make it easy to discuss such issues before they become chronic.

REFERENCES

Adebayo, A, (2023 Feb 17). Importance of organisational culture in performance management. LinkedIn. <https://www.linkedin.com/pulse/importance-organizational-culture-performance-adedoyin-adebayo>

-
- Aguinis, H. (2019). *Performance management* (4th ed.). Chicago Business Press.
- Alase, G. A, & Akinbo, T.M. (2021). Employee motivation and job performance: Empirical evidence from Nigeria. *Applied Journal of Economics, Management and Social Sciences*. <http://10.53790/ajmss.v2i2.20>
- Al-Omari, K. & Okasheh, H. (2017). The influence of work environment on job performance: A case study of engineering company in Jordan. *International Journal of Applied Engineering Research*. 12(24), 15544-15550
- Almatrooshi, B, Singh, S. K. & Farouk, S. (2016). Determinants of organisational performance: a proposed framework. *International Journal of Productivity and Performance Management*. 65(6), 844-859
- Agarwal, A. (2020). Investigating design targets for effective performance management system: An application of balance scorecard using QFD. *Journal of Advances in Management Research*, 18(3), 353-367
- Armstrong, M. (2018). *Armstrong's handbook of performance management*, (6th ed). London: Kogan Page.
- Bartlett, B. (2021). Dealing with underperformance. In Moosa, M. & Meyer, M. (Eds), *Performance Management: A contemporary South African perspective*, (1st ed., pp. 193-218). Van Schaick.
- Boell, S.K. & Cecez-Kecmanovic, D., (2014). A hermeneutic approach for conducting literature reviews and literature searches. *Communications of the Association for Information Systems*, 34(1), 12.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Bucăța, G. (2018). The challenges of organisational management. *Land Forces Academy Review*, 23(4), 275 – 281, <http://doi:10.2478/raft-2018-0034>
- Bussin, M. 2017. *Performance management reboot: Fresh perspectives of the changing world of work*. Johannesburg: K.R. Publishing.
- Bustamam, N. M, Choh, N. F, C., Shaari, J. & Muda, R. (2020). Factors affecting the performance of employee in workplace. *International Journal of Modern Trends in Social Sciences*. 3(11) 69-79 <http://dx.doi.org/10.35631/IJMTSS.311005>
- Chartered Institute of Personnel and Development (2020 August 25). Managing drug and alcohol misuse at work. Report. London: Chartered Institute of Personnel and Development. https://prod.cipd.org/globalassets/media/knowledge/knowledge-hub/reports/drug-alcohol-misuse-work-report-1_tcm18-83090.pdf
- Chartered Institute of Personnel and Development (2022 August 17). Performance management: An introduction. understand how to build an effective approach to performance management, including the tools that can support it. <https://www.cipd.co.uk/knowledge/fundamentals/people/performance/factsheet>
- Chartered Institute of Personnel and Development (2023 February 23) Tackling in-work poverty: guidance for employers
-

-
- Chigo, M. (2021). Performance management systems: Development and implementation. In Moosa, M. & Meyer, M. (Eds), *Performance Management: A contemporary South African perspective*, (1st ed., pp. 85-113). Van Schaick.
- Diamantidis, A.D. and Chatzoglou, P. (2019), Factors affecting employee performance: an empirical approach, *International Journal of Productivity and Performance Management*, 68(1), 171-193. <https://doi.org/10.1108/IJPPM-01-2018-0012>
- Diana, I. N. Supriyanto, A. S., Ekowati, V. M. & Ertanto, A. H. (2021). factor influencing employee performance: The role of organisational culture. *Journal of Asian Finance Economics and Business*. 8(2) 0545–0553 <https://doi:10.13106/jafeb.2021.vol8.no2.0545>
- Dougall, A.W. (2015). Identification of key performance areas and indicators in the southern African underground coal mining delivery environment. *26th Annual General Meeting & Conference, SOMP*, Sandton, South Africa
- Forson, J. Ofori-Dwamena, E., Opoku, R. & Adjavon, S. (2021). Employee motivation and job performance: a study of basic schoolteachers in Ghana. *Future Business Journal*. 7, <http://10.1186/s43093-021-00077-6>.
- Ajayi, S. (2018). Effect of Stress on Employee Performance and Job Satisfaction: A Case Study of Nigerian Banking Industry. Retrieved from <https://ssrn.com/abstract=3160620>
- Goshu, Y. Y. & Kitaw, D. (2017). Performance measurement and its recent challenge: A literature review. *International Journal of Business Performance Management*. 18(18 4), 381-402. <http://dx.doi.org/10.1504/IJBPM.2017.087103>
- Indeed. (2023 February 4). 5 Methods to Effectively Measure Performance Management. <https://www.indeed.com/career-advice/career-development/performance-management-measure>.
- Kapur, R. (2018). Organisation and job design. *European Journal of Business and Management*, 5(5), 46-55.
- Knight, C. & Parker, S. K. (2021). How work redesign interventions affect performance: An evidence-based model from a systematic review. *Human Relations*. 74(1,)69 – 104
- Kuswati, J. (2020). The Effect of Motivation on Employee Performance. *Budapest International Research and Critics Institute Journal*. 3(2), 995 - 1002 <https://doi.org/10.33258/birci.v3i2.928>
- (Lobaugh, K., Simpson, F. & Stephens, B. (2019 May 29). The consumer is changing, but perhaps not how you think. Deloitte Insights. <https://www2.deloitte.com/us/en/insights/industry/retail-distribution/the-consumer-is-changing.html>
- Maloa, F. (2021). Business strategy and performance. In Moosa, M. & Meyer, M. (Eds), *Performance Management: A contemporary South African perspective*, (1st ed., pp. 16 - 43). Van Schaick.
- Mamun, Z. A. & Khan, Y. H. (2020). A theoretical study on factors influencing employees. performance, rewards, and motivation within organisation. *SocioEconomic Challenges*. 4(3), 2520-6214. [https://doi.org/10.21272/sec.4\(3\).113-124.2020](https://doi.org/10.21272/sec.4(3).113-124.2020)
- Meyer, M. & Kruger-Pretorius, E. (Eds). (2018). *Introduction to human resource management*. Pretoria: Van Schaick
-

-
- Moosa, M. (2021). Performance management process. *Performance Management: A contemporary South African perspective*, In Moosa, M. & Meyer, M. (Eds), (1st ed., pp. 63-83). Van Schaick
- Nikolić, T. M., Perić, N. & Bovan, A. (2020). The Role of Feedback as a Management Tool in Performance Management Program. *Quality - Access to Success* 21(177), 3-8,
- Pradhan, R.K., & Jena, L.K. (2017). Employee performance at workplace: Conceptual model and empirical validation. *Business Perspectives and Research*, 5, 69 - 85.
- Sridharan, (2022 April 29). The impact of goal setting on employee performance. Betterworks. <https://www.betterworks.com/magazine/impact-of-goal-setting-on-employee-performance/>
- Tuffaha, M. (2020). The Determinants of employee's performance: A literature review. *Journal of Economics and Management Sciences*. 3, 14-24, <https://10.30560/jems.v3n3p14>
- Valamis Group, (2023). Performance Management. Retrieved from <https://www.valamis.com/hub/performance-management>
- HR Daily advisor. (2018). Techniques to Manage and Improve Employee Performance. Retrieved from <https://hrdailyadvisor.blr.com/2015/08/27/techniques-to-manage-and-improve-employee-performance/>
- Pasha, J. (2022 February 12). Major effects of poverty on work. Soulandland. Retrieved from <https://soulandland.com/poverty/major-effects-of-poverty-on-work/>
- Projectopics, (2019 September 10). The impact of working environment on employees' performance. Retrieved from <https://projectchampionz.com.ng/2019/09/10/the-impact-of-working-environment-on-employees-performance/>
- Rostam, F.A. (2019). Organisational performance management. Conference Paper · December 2019
- Saidi, N. S. A., Michael, F. L., Sumilan, H., Lim, S. L. O., Jonathan, V., Hamidi, H. & Ahmad, A. I. A., (2019). The Relationship Between Working Environment and Employee Performance. *Journal of Cognitive Sciences and Human Development*. 5(2), 14-22
<http://dx.doi.org/10.33736/jcshd.1916.2019>
- Van den Broeck, A. & Parker, S. (2017 June 13). Job and work design. *Oxford Research Encyclopedia of Psychology*. <http://dx.doi.org/10.1093/acrefore/9780190236557.013.15>
- Wärnich, S, Carrel, M. R., Elbert, N. F. & Hatfield, R. D. (2018). Human Resource Management in South Africa. (6th ed). Cengage Learning.
- Wan, M. (2020). Analysis of performance management problems in catering Industry. *Advances in Social Science, Education and Humanities Research*, 466,
https://www.researchgate.net/publication/345079923_Analysis_of_Performance_Management_Problems_in_Catering_Industry
- Warroka, A. & Febrilia, I. (2015). Work-family conflict and job performance: Lesson from a Southeast Asian emerging market. *Journal of Southeast Asian Research Market*. 14,
<https://10.5171/2015.420802>
- Widayati, C. C. Widayati1, Arijanto, A, Magita, M., Anggraini, W., Putri, A. (2021). The effect of work family conflict, job stress, and job satisfaction on employee performance.
<https://doi.org/10.31933/dijdbm.v3i1>
-

SSIRC 2023-210**MOTIVATION AND BARRIERS TO ENTREPRENEURSHIP PROPENSITY AMONG DIGITAL SKILL TRAINING PARTICIPANTS IN NIGERIA****C. M. Adelowo**

North-West University, South Africa

J. B. Surujlal

North-West University, South Africa

ABSTRACT

Background: This study examines the motivation and barriers to entrepreneurship propensity among young participants of a specialised training programme in web design, hardware engineering and cinematography in South-west Nigeria. The study is premised on the rationale that technical skills development coupled with entrepreneurship education has the potential to trigger self-employment among participants. Self-employment can then reduce the spate of youth unemployment, and improve economic activities, and national competitiveness. Entrepreneurship is particularly important for a developing country like Nigeria that is confronted with increasing unemployment, high business mortality and weak infrastructure to support businesses. It has also been argued that growing a critical pool of entrepreneurs among youth in the science, technology, engineering, and mathematics (STEM) fields is more attractive as the current technology advancement could be leveraged by these young minds/talents to transform their creative ideas into businesses that can generate employment opportunities. The study adopts a quantitative approach where primary data was collected from sixty-six (66) training participants with the aid of a validated questionnaire. The cross-sectional survey was conducted after two rounds of training for 225 participants in Lagos and Osun states, Nigeria. The response rate was 29.3% and all responses were valid for descriptive analysis. The results show that most of the training participants (97%) are interested in starting their own business and their level of entrepreneurship interest is considerably high. The most important reasons for their high entrepreneurship interest include putting into practice the digital skills acquired (71.9%), avoiding being unemployed (46.9%), and solving societal problems (51.6%). On participants' entrepreneurship practice, about 31.8% of them are already running one form of business or another. The main motivators for entrepreneurship activities among them include parents (9.1%), events (10.6%) and peers (4.5%). Interestingly, most of them (68.2%) have been exposed to entrepreneurship education in school (49%) and elsewhere (51%). They also reported that entrepreneurship education has built their ability to identify business ideas and develop networks and practical management skills to start and run businesses. However, they identified a lack of capital, tools and equipment, office space and mentors as important barriers to entrepreneurship aspiration. The results reveal that high entrepreneurship propensity exists among the participants and that entrepreneurship interest was motivated by parents, events, and peers, while lacking capital, office space and tools are major barriers to their start-up intentions. The study concludes with practical implications of the results and suggests the provision of entrepreneurship infrastructure and funding mechanisms such as

incubators, innovation hubs or technology hubs and competitive business grants to strengthen and sustain entrepreneurship propensity among the participants and youth in general.

KEYWORDS: entrepreneurship, entrepreneurship propensity, motivation, digital skills, talent, education

1. INTRODUCTION

Developing countries, especially in Africa, are faced with increased unemployment, weak institutions, as well as poor incentives and infrastructure to support small businesses despite their massive young populations (Ilevbare et al., 2022). Development experts have argued that the young population is a veritable asset because they are properly skilled and have the motivation to turn their knowledge into gainful economic activities (Singer et al., 2014; Sieger et al., 2022). Economic hardship occasioned by the COVID-19 pandemic, the effect of the ongoing war between Russia and Ukraine, and the Sudan crisis have complicated socio-economic development not only in Africa but also on a global scale (Adelowo & Akinwale, 2023; Ilevbare et al., 2022). While political options are being exploited to resolve issues in these crisis-ridden countries, important strategies are being pursued to improve economic situations in each country. Some of the strategies being explored in developing countries include the promotion of entrepreneurship education and training, capacity building in key areas useful to the economy, the creation of infrastructure to nurture young talents and the provision of incentives that could motivate innovations and business development (Olofinyehun et al., 2018). These strategies are in line with the arguments of business development experts and innovation scholars such as Peter Drucker (2014) and Joseph Schumpeter (1934), who argued that entrepreneurship is fundamental to challenging and changing the status quo through market disruption and by introducing new business, products, and services to the market. In fact, Adeoti (2019) and Siyanbola (2014: 2019) clearly articulated in their lectures that the promotion of entrepreneurship education and training among students and faculty is crucial to overcoming unemployment and poverty in Nigeria. The two authors place greater emphasis on technological entrepreneurship, which has the potential to create value and massive employment opportunities for youngsters. Earlier studies have established that entrepreneurship education in Nigerian tertiary institutions has improved entrepreneurship propensity among undergraduates with clear evidence that some of them run businesses while still in school (Olofinyehun et al., 2018; Adelowo et al., 2021; Ilevbare et al., 2022; Adelowo & Henrico, 2023). The results from these studies demonstrated that entrepreneurship indeed matters when it comes to nurturing entrepreneurial inclinations among undergraduates across various disciplines. What is more, there are specific contextual incentives that are likely to improve entrepreneurial activities among the youth. For instance, Huang (2016) argues that a new venture creation requires enough resources and adequate support. Personal entrepreneurial characteristics, environmental factors and important psychometrics have also been found to influence an individual's tendency to engage in entrepreneurial ventures (Soetanto et al., 2018; Schimtz et al., 2017; Sultana et al., 2019). With all these factors being established as predictors of entrepreneurship among the youth, it is also crucial to examine the motivations and barriers to entrepreneurship propensity among the youth. In this study, a searchlight is beamed on important motivations and barriers to entrepreneurship

propensity among participants of a digital training programme. The digital training programme was organised to equip the youth in STEM fields with adequate knowledge of computer programming and coding, with a specific emphasis on bridging the gender gap and embracing inclusiveness. The training revolved around web design, hardware engineering and cinematography for six weeks in two different locations in Nigeria-Lagos and Osun states. The participants require both entrepreneurial and technical competencies to succeed in putting the training into practice. The study relies on primary data collected from the training participants in the two locations. Understanding the drivers of entrepreneurial propensity among the participants is important for the training organisation to refine and improve their modules for entrepreneurial impact. Furthermore, the study helps the sponsors of the trainees to identify key requirements that spur entrepreneurship among them and be guided as to additional interventions required for them to succeed. The success of the training is an important outcome to justify sponsors' commitment to the training programme. The study also unearths important interventions required by the government to improve the entrepreneurship climate for the attainment of the national development agenda and the SDGs. Theoretically, the study contributes to an empirical understanding of entrepreneurship motivation among young persons within the context of a developing country.

2. LITERATURE REVIEW

2.1. Entrepreneurship and development

The relevance of entrepreneurship to economic growth and development is critical and cannot be ignored (Adeoti, 2019). Over the years, a relationship between entrepreneurship and development has been established (Anbu, 2013). Entrepreneurship has long been regarded as the linchpin for economic development. It has been recognised that the amount of economic growth in a region is heavily influenced by the level of entrepreneurial activities in the region (Anbu, 2013; Sari et al., 2021). Entrepreneurship enhances national productivity and competitiveness (Muhammad et al., 2015; Obaji, 2014). Furthermore, Riaz et al. (2016) argued that entrepreneurship is a source of inventiveness, job creation, and economic development, which could explain why young people are drawn to it. Economic and policy experts now believe that entrepreneurship has the potential to turn around national fortune, hence the need to devise strategies to promote and incentivise it. This is particularly needed where unemployment is on the rise leading to several socio-economic vices, poverty, and underdevelopment (Ojiaku, Nkamebe & Nwaizugbo, 2018; Anjum, Farrukh & Heidler, 2022). Therefore, to increase the stock of entrepreneurs in any economy, entrepreneurship education and training have become viable channels, in addition to the creation of a robust entrepreneurship climate or ecosystems (Sieger et al., 2021; Adelowo & Henrico, 2023).

2.2 Entrepreneurship interest: Theory of planned behaviour (TPB)

In terms of understanding human behaviour, Ajzen (1991) demonstrated that the theory of planned behaviour (TPB) is a strong tool to describe both intention and actual behaviour. He added that intention has three cognitive antecedents: attitude (a person's positive or negative evaluation of the target behaviour), subjective norms (the opinions of social reference groups such as family and

friends, about whether the person should engage in the behaviour), and perceived behavioural control (the perceived ease or difficulty of performing the behaviour). In the TPB, whereas perceived behavioural control plays a dual function, intention fully mediates the effects of attitude and subjective norms on behaviour. Furthermore, Kakkonen (2018) commented that entrepreneurial attitude is basically about knowing what it means to be an entrepreneur with a proclivity for self-employment; subjective norms are people's perceptions of what others think about whether or not they should do something (Ajzen & Fishbein, 1980); while perceived behavioural control explains how individuals view their level of self-control and how difficult it is to engage in the desired behaviour (Ajzen, 1991). Several scholars have extensively used the theory of planned behaviour (TPB) to assess entrepreneurial intention. In fact, entrepreneurial intention is a good predictor of subsequent new venture creation (Yang, 2013; Adelowo et al., 2016; Olofinyehun et al., 2018). TPB's key premise is that planned behaviour is deliberate and could be expected with the aim of engaging in that activity (Kautonen, van Gelderen & Fink, 2015). Previous studies, such as Anjum, Farrukh and Heidler (2022), have demonstrated the usefulness of TPB in projecting entrepreneurial intention. Personal attitudes, social norms, and perceived behavioural control were the three key components TPB employed to explain entrepreneurial intention (Ajzen, 1991). Entrepreneurship has been perceived as a positive social and economic behaviour with huge potential to reduce the spate of unemployment among undergraduates in Nigeria (Adelowo et al., 2016; 2018; Olofinyehun et al., 2018). The introduction of entrepreneurship education and training therefore reinforces the competence level of individuals to undertake a career in venture creation.

2.3 Entrepreneurship education and training: Relevance to entrepreneurship interest

The role played by entrepreneurship education and training in advancing various positive entrepreneurial activities in a region cannot be underestimated (Adelowo et al., 2021). Entrepreneurship education has been defined as the process of developing capacity and skills for the goal of entrepreneurship in general, or as part of a recognised education curriculum or programme at primary-, secondary-, and tertiary-level institutions (Global Entrepreneurship Monitor (GEM), 2018). Ibidunni (2021) opines that the concept of entrepreneurship was a practical means to achieve the aim of sustainable economic growth that various third-world countries had set for themselves. Moreover, some schools, including colleges and universities, have begun to instil the entrepreneurial mindset in pupils through entrepreneurship education. This was done with the purpose of making available the skills and capabilities required by them to survive the labour market competition rate, which, in turn, can contribute economically to the states' progress. Findings from Ndofirepi (2020) revealed that entrepreneurial education has a direct impact on entrepreneurial goal intentions and other entrepreneurial qualities. As a result, it is possible that students' exposure to entrepreneurship education has an impact on their psychological development (Ndofirepi, 2020). The place of training is critical for entrepreneurial growth among the youths in a region. The youth are major agents in the advancement of entrepreneurial activities (Ilevbare et al., 2022). The youth believe that the most crucial talents for a successful entrepreneur are decision-making ability, risk-taking capacity, creativity, communication, and the ability to construct a business strategy. These talents and skills are for the youth to create their own business,

be their own boss, and pursue their aspirations. The most discouraging factors are a lack of experience and a lack of capital (Mani, 2015).

2.4 Motivation and barriers to entrepreneurship among youth

The government has launched numerous measures to stimulate entrepreneurship in collaboration with private sectors, but not enough progress has been made. This can be attributed to a lack of awareness about young people's ideas and attitudes about entrepreneurship. The bulk of the current programmes focus on removing the most common impediments, such as cultural and societal standards, financial support, and regulation, while failing to encourage positive views toward entrepreneurship as a vocation (Chukwuma et al., 2017). Entrepreneurship skills development is a critical component of economic empowerment, job creation and poverty reduction. It is worth emphasising that efforts should be made to facilitate the complete growth of entrepreneurship education in Nigeria by creating an investor-friendly climate, proper security, and support programmes that will aid in the transformation of creative ideas into reality (Adamu & Yahaya, 2016). Some of the main barriers to entrepreneurship among youth included insufficient knowledge of science and technology, poor credit and infrastructural facilities, inadequate support programmes, inability to identify entrepreneurial opportunities, insecurity of life and property in the country, low spirit of competition, and attitudinal issues such as poor enterprising culture, and indifference to technical and vocational education development (Undiyaundeye & Otu, 2015). Due to Nigeria's chronically high rates of unemployment, low productivity, high inflation, and widespread poverty, the government has adopted policies and initiatives to boost skills development and foster an entrepreneurial, self-reliant, and innovative mindset (Nwosu, 2019). The importance of developing entrepreneurial skills among students at universities and other higher education institutions in the country has become critical to the country's economic growth and development. This is because entrepreneurship provides the opportunity to create wealth, employment, and income (Alhaji & Muharram, 2019). Therefore, governments in most developing countries are working hard to encourage unemployed graduates to engage in entrepreneurship activities, which is believed to significantly help address the issue of youth unemployment (Nwosu, 2019).

3. RESEARCH METHODOLOGY

3.1 Research methods

The study adopts a quantitative approach to understand entrepreneurial propensity, motivation, and barriers among the digital skills training participants. The training was organised by a Digital Talent Foundation funded by the United States Consulate in Nigeria. The training focused on building the youth's capacity tech skills and empowered their self-expression, opened them to the possibility of careers in STEM fields, and bridged the gender gap by encouraging more female participation. The participants were recruited through the Foundation's website and LinkedIn handle with a specific emphasis that applicants must be undergraduates or secondary school leavers, aged between 18 and 25 years, studying for a course in STEM fields, and to bridge gender disparity, the selection was based on 60% females and 40% males. The total population recruited and trained were two hundred and twenty-five (225) youths indicating that 33.33% of them were trained in Osun State while the majority were trained in Lagos State. A larger percentage of the

trainees were recruited in Lagos because of its population density, the largest populous city in Africa. Given that all of them applied through a centralised email system created by the Foundation, it became easier to send the questionnaire link through the same channel. The already validated entrepreneurship survey questionnaire was adapted, converted to Google Forms, and deployed for data collection. Following a clear ethical process, the participants who agreed to the solicited informed consent could proceed to complete the instrument. In total, the response rate was 29.3% and all responses received were valid for descriptive analysis. The reasons for the low response rate could be attributed to the time lag between when the training was completed and when the survey was conducted. Specifically, the training was conducted between late 2021 and early 2022 while the survey took place between December 2022 and early 2023.

3.2 Variables and measurement

Crucial variables of interest in this study include the entrepreneurial intention and practice among the participants, motivation, and barriers to their pursuit of entrepreneurial ventures. In addition, an open-ended question on what the trainees need to practice what they have learned was raised. As noted earlier, entrepreneurial intention represents the degree of readiness displayed by an individual to undertake venture creation as a career choice, either at present or in the future (Sieger et al., 2018). Intention is a precursor to actual action, the same for entrepreneurship intention. Ajzen (1998; 2011) articulated three constructs that define entrepreneurship engagement, including attitude towards behaviour, subjective norms, and attitudes towards behaviour. From the motivational theory, individual action in society is directed towards activities perceived to produce a more plausible satisfaction. For instance, Ashad et al. (2021) found both extrinsic and intrinsic motivations as important drivers of entrepreneurial intention at Pakistan's largest university. Interestingly, motivation reinforces individual attitudes towards entrepreneurship engagement while the lack of it constitutes a barrier. The main variables of interest captured in this study and how they were measured are presented in Table 1. Some biographical variables in the first part of the research instrument include age, gender, marital status, ethnic affiliation, and religion. Information on educational background captured presents the level of education and course of study. On the parent's business experience, information on whether any of the parents run a business is relevant to this study, as it could be an important impetus for the offspring to engage in entrepreneurship. The kind of business a parent runs is also elicited. Table 1 shows the major variables and how they were measured in the study, including entrepreneurial interest (EI) and entrepreneurial practice (EP), which are measured using dichotomous responses such as yes "1" and no "0". The level of EI was measured using a five-point Likert scale of between very low "1" and very high "5". On the participants' level of business involvement, they were to respond to questions related to whether they are the business initiator "1" or partner "2". On the motivation for entrepreneurship among the participants, two variables were used. The first relates to the personality and events that propel their interest in entrepreneurship. The five motivators identified were parents, siblings/relatives, personal interests, events, and peers. Similar variables have been utilised in Adelowo and Henrico (2023) and Olofinyehun et al. (2018; 2022). They also aligned with the theory of planned behaviour where parental influence, relational support, events, and opportunities resulting from events could spur entrepreneurship (Ajzen, 1998; Ilevbare et al., 2022).

Table 1: Variables and measurement

| Variables | Items | Measurement | Sources |
|---------------------------------------|---|-----------------------------------|--|
| Entrepreneurial interest and practice | Question on whether the participants are interested in or practising entrepreneurship | Yes-1 No-0 | The two variables are as measured in Olofinyehun et al. (2018; 2022) |
| Level of entrepreneurship interest | Participants rated their level of interest on a five-point Likert scale. | Very low-1 Very high-5 | Olofinyehun et al. (2018) |
| Level of business involvement | Whether as initiator or partner | Initiator-1 Partner-2 | Olofinyehun et al., 2018 |
| Motivators | The motivator of entrepreneurship in participants | Parent-1 Siblings-2 Peers-5 | Adelowo and Henrico, 2023 |
| Reasons for entrepreneurship interest | The reasons were suggested for the participants to select as many as applied to them | Multiple responses | |

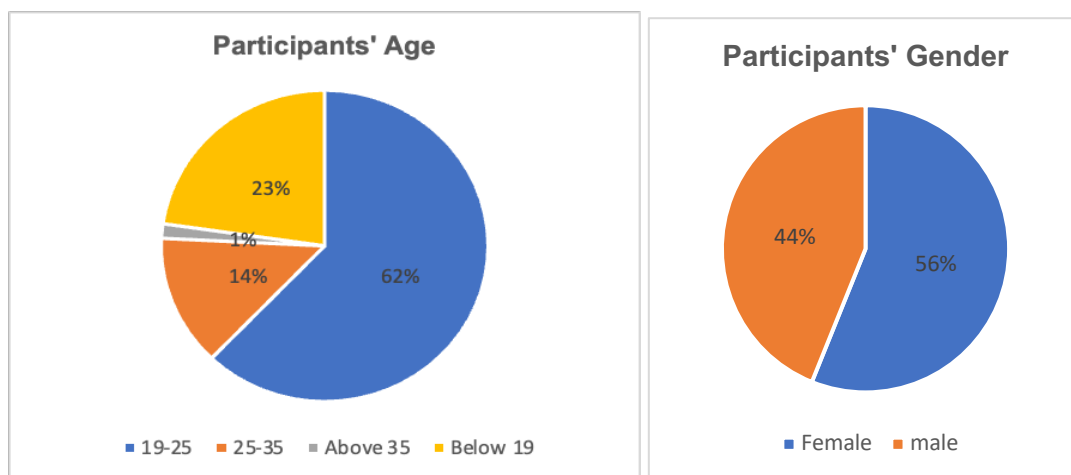
Moreover, for those who indicated interest in entrepreneurship, the reasons for the interest were measured using multiple response items including the need to practice the skills learnt, avoid being unemployed, run parent's business, make money, and to take advantage of identified business ideas.

An open-ended question was also raised to identify five major needs the participants required to start or scale their businesses. The responses were used to further improve the understanding of what stakeholders could put in place to foster entrepreneurship among the participants. The data collected was analysed using descriptive analysis.

4. RESULTS AND DISCUSSION

4.1 Background information, EI, and EP of the study participants

In this section, the results of the data analyses are presented, starting with the demographic information of the participants. As noted in section 3 (research and methods), there are more female participants than males, and the result reflects this reality as about 56% of the female participants completed the survey. Also, most of the participants are between the ages of 19 and 25 years, and 23% of them are below the age of 19 years. This finding reflects the true picture of the massive young population in Nigeria who are mostly school leavers while some are currently undertaking various courses in tertiary institutions across the country (Ilevbare et al., 2022). Only a few of the participants are older than 35 years of age, as indicated in Figures 1 and 2. The results corroborate earlier findings on the age range of undergraduates in Nigeria (Olofinyehun et al., 2018), and that the minimum enrolment age at universities is 18 years. However, there are some exceptional cases, especially where candidates perform well in the entrance examination. The result suggests that there is a huge pool of youth who could become potential entrepreneurs when appropriate incentives and training are offered.



Figures 1 & 2: Age and gender of participants

In terms of participants’ marital status, the result as presented in Table 2 shows that they are all single, as expected. Most school leavers and undergraduates in Nigeria are single, except in few cases where some are married (Olofinyehun et al., 2018). Also, most of the respondents are Christians by religion (78.8%), while only a few of them are Muslims (21.2%). Of those who are currently in higher education institutions, the majority of them are studying courses related to science and technology (68.2%), while a few of them are in management and economic fields (31.8%). Most of the participants are in their first year (100 Level) (45.5%) in the school with the fewest being in their third year (9.1%). The results indicate a near gender balance for the training participants, although females are slightly higher. This could be as a result of the deliberate allocation of more space to girls in the training. In fact, the training was meant to encourage girls’ participation in digital skills and science programmes.

Table 2: Participants’ demographic information

| Marital Status | Frequency | Percent |
|------------------------|-----------|---------|
| Single | 66 | 100 |
| Religion | | |
| Christianity | 52 | 78.8 |
| Islam | 14 | 21.2 |
| Level of study | | |
| 100 | 30 | 45.5 |
| 200 | 10 | 15.2 |
| 300 | 6 | 9.1 |
| 400 | 10 | 15.2 |
| 500 | 10 | 15.2 |
| Course of study | | |
| Management/Economics | 21 | 31.8 |
| Science | 31 | 47.0 |
| Technology | 14 | 21.2 |

On the participants’ parent entrepreneurship experience, the results, as presented in Table 3, show that most of the parents of the participants are involved in one form of business or another (86.4%), while just a few did not have business experience. On whether parents’ business is on-going or not, about 60.6% of them affirmed that the business was on-going at the time the data was collected. The results suggest that entrepreneurship activities run in most of the participants’ family – a good indication that may likely predispose them to choose entrepreneurship as a career option in the future. It should be recalled that parental influence on their offspring is multifaceted, and it includes grooming young ones to take over the family business. Ilevbare et al. (2022) show the influence of relational support, particularly family and friends on entrepreneurship intensity among undergraduates in a Nigerian university. Moreover, about 31.8% of the participants currently engage in one form of business or another, as shown in Table 3. The prevailing business types among the participants include services (16.7%) and trading (4.5%). It is noteworthy to see each of them engaged in catering, digital marketing, fashion, and sales of wear, kitchen utensils, house gadgets, duvets, and bedspreads.

Moreover, the results show that about 15.15% of them are the initiators of the business they engage in, while 16.7% are in partnership with others. This result indicates that a few of the participants are conscious of utilising the power of partners to run a business, especially in an environment where they do not have access to start-up funds. Earlier studies on sources of funding for business in Nigeria have always ranked personal savings and loans from friends and family as the most important ones as other sources come with high interest rates (NBS-SMEDAN, 2019; Adelowo & Akinwale, 2022). Therefore, a partnership form of business allows students to pool resources for business activities. On the motivation for business engagement among the participants, parents (9.1%) and events (10.6%) are the main sources. Other sources of business motivation among them are peers (4.5%), siblings and relatives, the quest for financial freedom, passion and enthusiasm, mentors, and personal interest. These sources could be harnessed by various institutions to stimulate entrepreneurial intention among the participants. For instance, creating entrepreneurship clubs in various universities could help leverage the entrepreneurship inclination of these young trainees.

Table 3: Parents’ and participants’ entrepreneurial experience

| | | |
|--|----|------|
| Parent's business involvement | | |
| No | 9 | 13.6 |
| Yes | 57 | 86.4 |
| Whether the business is ongoing | | |
| No | 9 | 13.6 |
| Yes | 17 | 25.8 |
| Yes | 40 | 60.6 |
| Participants’ business engagement | | |
| No | 45 | 68.2 |
| Yes | 21 | 31.8 |
| Kind of business | | |
| None | 45 | 68.1 |
| Agriculture | 2 | 3 |
| Catering | 1 | 1.5 |

| | | |
|---|----|-------|
| Digital marketing | 1 | 1.5 |
| Fashion designing and attire making | 1 | 1.5 |
| Selling of wears, kitchen utensils, house gadgets, duvets, and bedspreads | 1 | 1.5 |
| Service | 11 | 16.7 |
| Smoothie and clothing | 1 | 1.5 |
| Trading | 3 | 4.5 |
| Level of business involvement | | |
| None | 45 | 68.2 |
| Initiator | 10 | 15.15 |
| Partner | 11 | 16.7 |
| Business motivators | | |
| None | 45 | 68.2 |
| Event | 7 | 10.6 |
| Mentor | 1 | 1.5 |
| Parent | 6 | 9.1 |
| Myself | 1 | 1.5 |
| Passion and enthusiasm | 1 | 1.5 |
| Peers | 3 | 4.5 |
| Sibling/relatives | 1 | 1.5 |
| The quest for financial freedom/passion | 1 | 1.5 |

The result on why some of them are not currently engaging in business, as presented in Figure 3, shows that lack of capital (85%) represents a major setback while very few of them do not have interest at all (3%). Some of them considered business to be too risky (5%), while about 9% claimed to have a flare for something else. The result indicates that where venture funds are made available in the system, many of the youth do not lack business ideas to execute. In fact, they are very much ready to take risks as only a few of them consider business to be too risky. Studies on undergraduate and graduate entrepreneurial intention in Nigeria have consistently revealed similar trends of a lack of capital as a major impediment to active involvement in venture creation (Olofinyehun et al., 2018; Ibidunni, 2021; Ilevbare et al., 2022). The risk-taking potential of Nigerian youth is reflected in almost every sphere, particularly in the business operation witnessed in the innovation hubs, entertainment industry, and real sector of the economy with or without government support (Akinwale & Adelowo, *in press*; Adelowo et al., 2023).

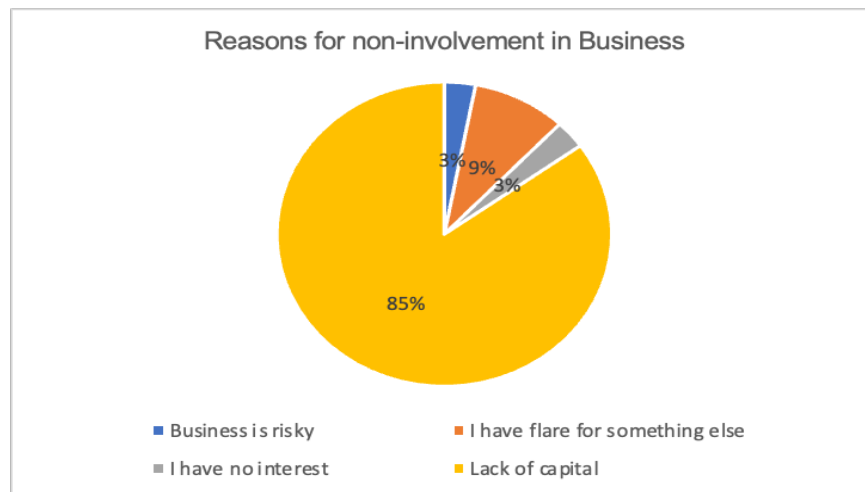
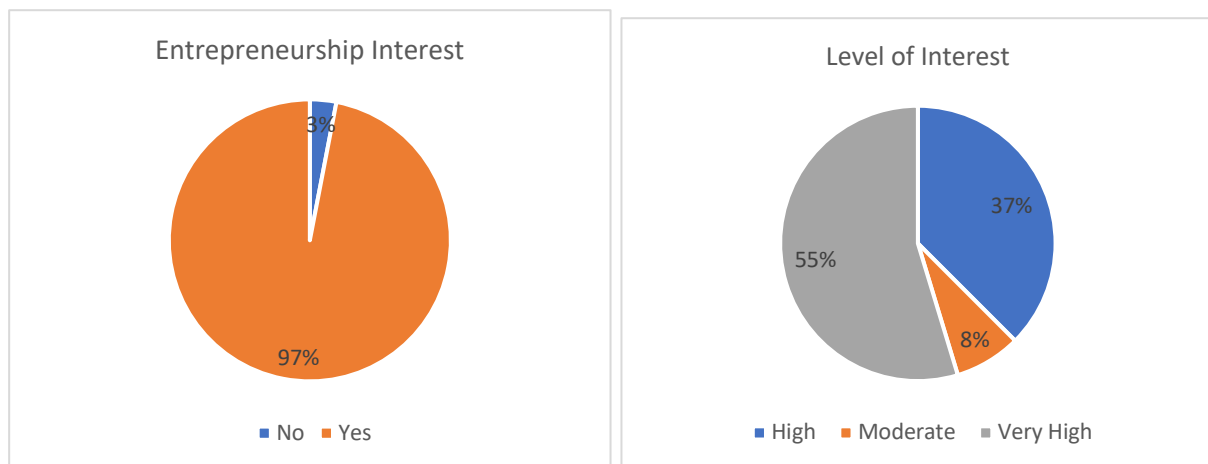


Figure 3: Reasons for non-involvement of participants in business

4.2 Entrepreneurship interest among the participants

In this section, the entrepreneurship interest of the participants was assessed in addition to its key antecedents. The results in Figures 4 and 5 show a very high entrepreneurial interest (EI) among the participants, which suggests that most of them are predisposed to setting up their own businesses while only a few were not. Although EI takes time and resources to graduate into actual practice, an interesting thing here is the rate of interest, which is very high. Given that interest precedes the actual behaviour and going by the high EI, there is the likelihood that if provided with sufficient incentives and infrastructure, the interest may transit to a business venture someday. To further scrutinise their EI, the participants were asked to rate their level of EI. The results showed that about 55% of them affirmed their level of EI to be very high, while 37% of them rated it to be high. Just 8% of the participants rated their EI to be moderate, while none considered it to be low or very low. The result is a clear pointer to the readiness of the participant to engage in entrepreneurial activities either at present or in the near future. The result of an open-ended question on why they are interested in entrepreneurship revealed a clear pattern of fear of unemployment. Some of them claimed that they are interested in entrepreneurship to avoid being unemployed, to make money and be rich, to solve societal problems and to take advantage of business ideas identified. Other reasons were to put into practice the skills acquired during the digital skill training and to be independent.



Figures 4 and 5: Distribution of participants by EI and level of EI

To further assess participants' readiness to undertake entrepreneurial activities, they were asked if they had a business plan. The result in Figure 6 shows that majority of them already developed a business plan (61%), while 6% of them did not respond. About 33% of them did not have a business plan to execute their ideas. This result further corroborates the possibility that real potential for entrepreneurship exists among the participants. They have a high propensity for entrepreneurship, and a high level of interest, and most of them have business plans to prosecute their ideas. To buttress their readiness for business, they were asked to list at least five major needs to kickstart or scale their business; some of the responses are presented qualitatively.

A participant listed "construction of housing and pen (there is an available land already), business registration fund, initial capital to purchase of pigs, purchase of feeds and other supplies, and cost of labour and other operating expenses."

The participant above is obviously interested in a piggery business. For those who intend to establish a business associated with digital skills acquired listed various equipment and gadgets for cinematography, photography, and printing and photocopying machines. A participant stated that he/she needs...

"A system (meant to be a laptop), a camera, a little studio consisting of different backdrops for products photography and let's say my phone. Of course, I could continue from any point your support would get to help build my business, but I would really need the external support. Right now, I can't do much as my savings can't even get a system, not to talk of the others. If any category of people would be considered, please let me be included" *Direct quote from a participant.*

To summarise the information provided by the participants, the major business needs listed are capital (take-off and working), networking, business premises, customers, evaluation skills, mentorship, and other specific venture-related needs.

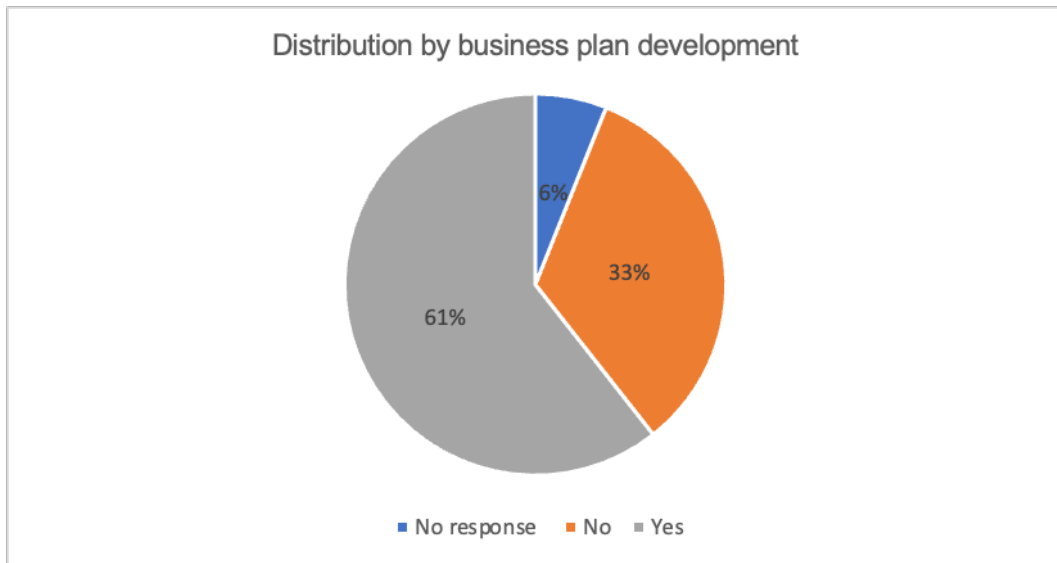
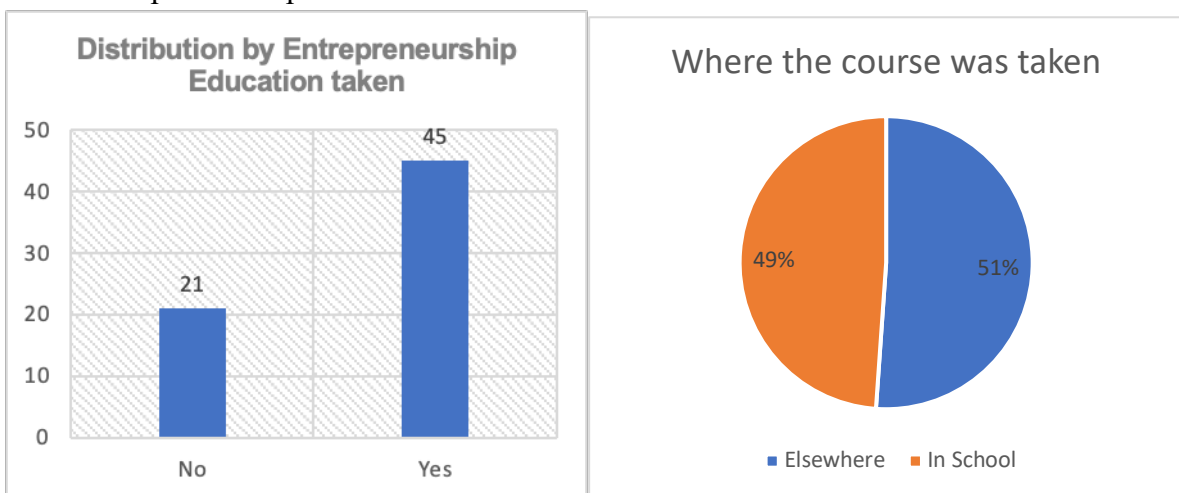


Figure 6: Distribution of participants by business plan development

To wrap up the results and discussion part, the study examines whether the participants have been exposed to entrepreneurship education or training at any point. This becomes one of the channels to enhance potential entrepreneurs’ capacity and self-efficacy (Ajzen, 1998; 2011). Entrepreneurship education or training exposes them to the nitty-gritty of business set-up and equips them with relevant information to stimulate their interest (Adelowo & Henrico, 2023). The results, as presented in Figures 7 and 8, show that 45 (68.2%) participants have taken entrepreneurship education at some point, while others have not. Of those who have taken the course, about 51% of them received the training elsewhere while 49% of them received the training in school. It should be noted at this juncture that entrepreneurship education is compulsory for all undergraduates in Nigeria’s tertiary institutions. The result could signal the fact that those who received entrepreneurship education in schools did so in their universities.



Figures 7 & 8: Distribution of participants by entrepreneurship education and where it was taken.

5. CONCLUSION AND POLICY IMPLICATIONS

The study was designed to examine motivation and barriers to entrepreneurship propensity among training participants in two selected states of Nigeria using a primary data collected from 66 participants of a specialised digital skill training. The study also beamed a searchlight on entrepreneurship interest and activities of the participants. The study is premised on the assumption that promoting entrepreneurship among the youth is a virile strategy to ameliorate the burden of unemployment, poverty and underdevelopment ravaging developing countries. Strategies to turn the young population in the country into entrepreneurship assets become viable options for development experts. Earlier studies in Nigeria have affirmed the influence of entrepreneurship education policy on the entrepreneurship inclination of undergraduates and graduates across the country (Olofinyehun et al., 2018; Adelowo et al., 2021; Ilevbare et al., 2022; Adelowo & Henrico, 2023; Adelowo, 2023). The results clearly demonstrate high entrepreneurship propensity among the participants while few of them are already running one form of business or another. For those currently running businesses, their major motivators are parents, peers, and events confirming the roles played by relational support and parental influence in the career choice of their offspring. Interestingly, for those who are not into any business, the least reason was risk aversion, which suggests that when venture capital and other entrepreneurship incentives are available, they might establish ventures. The entrepreneurship interest among them is not only high, but the level of interest is also high, signifying entrenched consciousness for entrepreneurship activities among the participants. It is observed that the major reason for high entrepreneurship inclination is necessity-driven, particularly to avoid being unemployed. Other reasons include making money and becoming rich, solving societal problems, and practising the skills acquired from the training. Of course, the main reasons for the introduction of compulsory entrepreneurship courses were to equip the students with entrepreneurship competencies that could equip them for self-employment or prepare them for the world of work. The study shows that most participants have attended entrepreneurship education either in school or elsewhere. Entrepreneurship education is observed not to be sufficient to transform intention into actual practice but should be coupled with the establishment of infrastructure such as incubators, innovation hubs, science and technology parks, and competitive business grants, among others. These would help them overcome the barriers of lack of capital, equipment, business space, and networks they have identified.

REFERENCES

- Adamu, A., & Yahaya, J. (2016). Entrepreneurship skills development: a tool for economic empowerment in Nigeria. *International Journal of Academia*, 2(1), 1–9.
- Adelowo C. M., Egbetokun A. A., & James A. O. (2016). Who wants to be an entrepreneur and why? A study of highly educated young Nigerians. A paper presented during Research Workshop for Grant Holders Organised by the Centre for Economic Policy Research (CEPR) 14 – 15 March 2016, London.
- Adelowo, C. & Akinwale, Y. (In press). Comparative Analysis of entrepreneurial propensity in developing economies: The case of Nigeria and Saudi Arabia. *International Journal of Knowledge and Learning*, in press, forthcoming: DOI: 10.1504/IJKL.2022.10052824).

-
- Adelowo, C. M. & Henrico, A. (2023). Entrepreneurship Education, Personality Traits and University Entrepreneurship Ecosystems as Predators of Venture Creation among Undergraduates in Nigeria. *Forum Scientiae Oeconomia*, 11 (1): 49-65.
- Adelowo, C. M. (2023). Self-efficacy, Government Support, Gender Equity and Apprenticeship as Predictors of entrepreneurial intention among Nigerian Graduates. Business Rescue Conference organised by the University of KwaZulu-Natal at Durban, South Africa, March 22-24, 2023.
- Adelowo, C. M., Egbetokun, A. A. & James, A (2016). The Supply of High-Quality Entrepreneurs in Developing Countries: Evidence from Nigeria. An unpublished project report submitted to PEDL, UK.
- Adelowo, C. M., Ilevbare, O. E. & Surujlal, J. (2021). Do entrepreneurial Characteristics and Education Influence Start-up Potentials among Undergraduates? Evidence from a developing country. *International Entrepreneurship Review*, 7(3): 71-82.
- Adelowo, C. M., Ilevbare, O. E. and Surujlal, J. (2021). Do entrepreneurial Characteristics and Education Influence Start-up Potentials among Undergraduates? Evidence from a developing country. *International Entrepreneurship Review*, 7(3): 71-82.
- Adeoti, J. O. (2019). Technopreneurship and National Development: Powering business and the economy with New Technologies. 31st Convocation Lecture delivered at the Federal University of Technology, Akure, Nigeria on the 18th December, 2019.
- Ajzen, I. & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Ajzen, I. (1991). The Theory of Planned Behaviour. *Organisational Behaviour and Human Decision Processes*, [online] 50(2), pp.179–211. Available at: <https://www.sciencedirect.com/science/article/abs/pii/074959789190020T>.
- Alhaji, I. A., & Muharram, F. M. (2019). Entrepreneurial Intention among Secondary School Students: A proposed conceptual framework. 20–33.
- Anbu, S. (2013). *Entrepreneurship Development: Key to Economic Development of a Nation*. St. Marys College, TamilNadu, India Hoothukudi, March.
- Anjum, T., Amoozegar, A., Farrukh, M., & Heidler, P. (2022). Entrepreneurial intentions among business students: the mediating role of attitude and the moderating role of university support. *Education and Training*. <https://doi.org/10.1108/ET-01-2021-0020>
- Ashad, M., Farooq, M., Atif, M. & Farooq, O. (2021). A motivational theory perspective on entrepreneurial intention: A gender comparative study. *Gender in management* 36 (2): 221-240.
- Chukwuma, E., Davies, E., & Ogbeide, O. (2017). Impact of Entrepreneurial Education on Entrepreneurial Intention Among a Sample of Nigerian Students. *International Journal of Social Sciences and Humanities Reviews*, 7(1), 2276–8645.
- Drucker, P. (2014). *Innovation and entrepreneurship*. Routledge, New York.
- GEM (2018) *Global Entrepreneurship Monitor 2017/18*, Global Entrepreneurship Monitor. Available at: <http://www.gemconsortium.org/report/50012>.
- Ibidunni, A. S., Mozie, D., & Ayeni, A. W. A. A. (2021). Entrepreneurial characteristics amongst university students: insights for understanding entrepreneurial intentions amongst youths in a developing economy. *Education and Training*, 63(1), 71–84. <https://doi.org/10.1108/ET-09-2019-0204>
-

-
- Ilevbare, F.M., Ilevbare, O.E., Adelowo, C.M. & Oshorenuwa, F.P. (2022), "Social support and risk-taking propensity as predictors of entrepreneurial intention among undergraduates in Nigeria", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 16 No. 2, pp. 90-107. <https://doi.org/10.1108/APJIE-02-2022-0010>
- Kakkonen, M.-L. (2018). First- year business students' entrepreneurial attitudes. 4th International Conference on Higher Education Advances (HEAd'18), 257–265.
- Kautonen, T., van Gelderen, M. & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship: Theory and Practice*, 39(3), 655–674. doi: 10.1111/etap.12056.
- Mani, M. (2015). Entrepreneurship Education. *International Journal of E-Entrepreneurship and Innovation*, 5(1), 1–14. <https://doi.org/10.4018/ijeei.2015010101>
- Muhammad, A. D., Aliyu, S., & Ahmed, S. (2015b). Entrepreneurial Intention Among Nigerian University Students. *American Journal of Business Education*, 8(4), 239–248. <https://doi.org/10.19030/ajbe.v8i4.9419>
- Ndofirepi, T. M. (2020). Relationship between entrepreneurship education and entrepreneurial goal intentions: psychological traits as mediators. *Journal of Innovation and Entrepreneurship*, 9(1). <https://doi.org/10.1186/s13731-020-0115-x>
- Nwosu, M. (2019). Youth Entrepreneurship Among University Graduates in Anambra, Nigeria. The Effect of Workplace Characteristics on Millennial Worker Organizational Commitment, 1–229.
- Obaji, N. O. (2014). The Role of Government Policy in Entrepreneurship Development. *Science Journal of Business and Management*, 2(4), 109. <https://doi.org/10.11648/j.sjbm.20140204.12>
- Ojiaku, O.C., Nkamnebe, A.D. and Nwaizugbo, I.C. (2018). Determinants of entrepreneurial intentions among young graduates: perspectives of push-pull-mooring model. *Journal of Global Entrepreneurship Research*, [online] 8(1). doi:10.1186/s40497-018-0109-3.
- Olofinyehun, A. & Egbetokun, A. (2022). Pooled Longitudinal Dataset on the Assessment of an Apprenticeship-based Entrepreneurship Intervention in Nigeria. <https://data.mendeley.com/datasets/x7v3gd2wm3>
- Olofinyehun, A. (2021). Dataset on Apprenticeship and Entrepreneurial Characteristics of Fresh Graduates in Nigeria. accessible through Mendely data here: <https://data.mendeley.com/datasets/wsg7gr7rxj>
- Olofinyehun, A., Adelowo, C., & Egbetokun, A. (2018). The Supply of High-Quality Entrepreneurs in Developing Countries: Evidence from Nigeria. *Science and Public Policy*, 45 (2): 269–282. <https://doi.org/10.1093/scipol/scx065>
- Riaz, Q., Farrukh, M., Rehman, S. U., & Ishaque, A. (2016). International Journal of Advanced and Applied Sciences Religion and entrepreneurial intentions: an empirical investigation. *International Journal of Advanced and Applied Sciences*, 3(9), 31–36.
- Sari, M. R. et al. (2021). Determinants of Entrepreneurial Intention among University Students: A Comparative Study between IPB University (Indonesia) and WULSS-SGGW (Poland)', in, pp. 360–368. doi: 10.5220/0009204603600368.
-

- Schumpeter, J. A. (1934). *The theory of economic development: an inquiry into profits, capital, interest, and business cycle*, translated from the Germany by Redvers Opie Brunswick (USA) and London (UK): Transaction Publishers.
- Siyanbola, W.O. (2019), Stimulating the culture of innovation in a latecomer economy for sustainable development, A keynote paper presented at the 1st International Conference on knowledge and Innovation Management, organised by Babcock University, Ilisan-Remo, 15-18 January, 2019, Ogun state, Nigeria.
- Undiyaundeye, F., & Otu, E. A. (2015). Entrepreneurship Skills Acquisition and the Benefits amongst the Undergraduate Students in Nigeria. *European Journal of Social Sciences Education and Research*, 4(1), 9. <https://doi.org/10.26417/ejser.v4i1.p9-14>
- Yang, J. (2013). The theory of planned behavior and prediction of entrepreneurial intention among Chinese undergraduates. *Social Behaviour and Personality*, 41(3), 367–376. doi: 10.2224/sbp.2013.41.3.367.

SSIRC 2023-219**USING LANGUAGE TO BUILD AUTHENTICITY WITH CONTENT MARKETING****C. du Plessis**

University of South Africa, South Africa

ABSTRACT

This paper examines the significance of authenticity in the context of blogging as a content marketing method. In recent years, brands have emphasised authenticity more as consumers have gained greater access to information and can readily research and compare products and brands. The study suggests that brands can demonstrate authenticity through their language when blogging. Content marketing is a strategic marketing approach in which businesses create and distribute informative, valuable, and engaging content to a specific audience to increase brand awareness, establish their authority, and ultimately generate profitable customer action. Blogging is one of the most important content marketing strategies, as it requires the creation and publication of blog posts on a regular basis to attract and engage a specific audience. Using the Linguistic Inquiry and Word Count (LIWC-22) tool, the social constructivist perspective was applied to analyse the language used in the world's top 20 content marketing blogs. The focus of the qualitative analysis was to determine whether the linguistic patterns of some of the top content marketing blogs in the world could be associated with authenticity. The results, however, imply that the linguistic patterns adopted by the sampled blogs are less aligned with the characteristics of authentic communication and more aligned with confidence and analytical thinking. As a result, the study highlights the need for businesses to also prioritise authenticity when blogging as part of content marketing efforts. Future research could examine the topic of language within the context of content marketing using various methodologies and human participants and compare human writing styles with artificial intelligence writing.

KEYWORDS: brand authenticity, content marketing, blogging, language, linguistics

1. INTRODUCTION

This paper examines the significance of language in establishing authenticity in the context of content marketing. In particular, the focus is on how content marketers use language to convey authenticity to effectively communicate their brand's messages to consumers when blogging, thereby fostering a deeper relationship, and establishing trust. Content marketing has gained significant attention in recent years, with businesses adopting various content marketing tools to communicate their brand messages to consumers. Within this context, authenticity has emerged as a crucial aspect of building successful content marketing campaigns (Jones 2018; Pulizzi & Piper 2023). Authenticity refers to the perception of genuineness that consumers associate with a brand, leading them to develop a deeper connection and trust (Rixom & Rixom 2023).

Södergren's (2021) review of 25 years of research on brand authenticity found three main areas of existing research: the differences between being authentic and not being real, the role of authenticity in establishing brand legitimacy, and the emotional and ethical parts of authenticity. He contends that even though this topic has been studied for 25 years, many areas of brand authenticity still have not been investigated.

One underexplored area that needs more investigation is authenticity within content marketing practices, particularly in blogging (Jones 2018; Mehdi 2023). Within the content marketing landscape, the establishment of authenticity has become vital for brands wanting to connect with their target audience because consumers are drawn to brands, they perceive as genuine and trustworthy (Jones 2018). Koob (2021) identified content production as a major factor influencing the effectiveness of content marketing and which can be enhanced with authenticity (Mehdi 2023).

Thus, the methods through which authenticity is conveyed in content marketing, particularly language used when blogging, require examination. Understanding how language is used to communicate authenticity in blog posts can provide valuable insights for content marketers, enabling them to establish deeper connections with their audience and foster trust (Du Plessis 2023). This study addresses this gap in the literature by examining the linguistic patterns of the world's top content marketing blogs and their association with authenticity.

Consequently, the paper addresses the following research question:

How can the linguistic patterns of the world's top content marketing websites be associated with authenticity?

Using the Linguistic Inquiry and Word Count (LIWC-22) tool, a social constructivist worldview was adopted to analyse the language style of 20 of the world's leading content marketing blogs. The qualitative analysis focused on words that demonstrate authenticity (sincerity or genuineness). However, words that demonstrate analytical thinking (logical or rational thinking) and clout (confidence or influence) were also included in the study to gain a deeper understanding of the language styles adopted by these blogs. When analysing the linguistic patterns of successful content marketing blogs, businesses can gain a better understanding of the language styles that resonate with their target audience and incorporate them into their content marketing strategies.

The remainder of the paper is structured as follows: An explanation of brand authenticity is followed by a discussion of content marketing and blogging, content marketing and brand authenticity, and the application of language in content marketing. The explanation of the methodology is followed by the results, discussion, and conclusion.

2. LITERATURE REVIEW

2.1 Brand authenticity

Brand authenticity has its origins in Greek philosophy and has been explored from a variety of scholarly viewpoints, including lifestyle display, multiculturalism, marketing communications, and leadership (Hernandez-Fernandez & Lewis 2019). Södergren's (2021) comprehensive evaluation of the last 25 years of brand authenticity research identified three major study streams. These research streams are concerned with the contrasts between authentic and counterfeit brands, the role of authenticity in brand legitimacy, and the emotional and moral dimensions of brand

authenticity. Collectively, these study streams emphasise the relevance of brand authenticity in establishing consumer trust and loyalty.

Brand authenticity is commonly defined as "the extent to which consumers perceive a brand to be true to itself and its consumers and to help consumers be true to themselves" (Morhart et al. 2015: 202). Nonetheless, brand authenticity is a multifaceted and complicated concept that cannot be reduced to a single definition (Hernandez-Fernandez & Lewis 2019; Södergren 2021). Furthermore, the literature is unclear on the many definitions of brand authenticity (Moulard et al. 2020). According to Akbar and Wymer (2017: 645), brand authenticity is the "extent to which a brand is considered unique, legitimate, truthful to its claims, and lacking falsity."

Aside from the lack of a uniform definition, there are various scholarly opinions on the factors that influence brand authenticity. Beverland et al.'s (2008) authenticity model, for example, includes six dimensions or attributes that contribute to the perception of authenticity: heritage and pedigree, stylistic consistency, quality commitments, relationship to place, method of production, and downplaying of commercial interests. Fritz et al. (2017), on the other hand, show that characteristics such as brand legacy, nostalgia, commercialisation, social commitment, and staff passion can all influence brand authenticity.

While there are numerous scholarly perspectives on brand authenticity in the literature, Dwivedi and McDonald (2018) believe that corporate investment in marketing communications can positively influence customers' perceptions of brand authenticity. This implies that marketing communications can effectively increase consumers' perceptions of a brand's authenticity. As a result, this paper proposes that marketing communications, such as those used in content marketing via blogging, can be an effective method for generating authentic communication. Businesses, for example, can boost consumers' perceptions of their brand's authenticity and strengthen the quality of brand connections by generating authentic and consistent messaging in blog content, leading to greater behavioural intentions (Dwivedi & McDonald, 2018).

Acknowledging the various dimensions and complexity of brand authenticity, this paper focuses on language patterns found in blog postings related to authenticity.

In this regard, Jepson (2022) contends that brand authenticity is even more crucial in today's social media-driven world. Therefore, brands must understand their target audience and connect with them authentically and genuinely, a stance backed by the current study.

2.2 Content marketing and blogging

Content marketing has become a prominent strategic approach used by businesses to create and distribute valuable and relevant content, aiming to generate profitable consumer action. It encompasses various forms of content, such as blog posts, videos, infographics, e-books, and social media posts intended to educate and engage potential customers, ultimately building trust and loyalty (Du Plessis 2022; Pulizzi & Piper 2023). The focus of this study is specifically on blog posts, which serve as longer forms of content with the potential to convey authenticity through language use.

The goal of content marketing is to establish relationships with prospective customers by providing them with information that is not only informative and helpful, but also personalised to their individual requirements and areas of interest. As a result, content marketing is a long-term strategy that necessitates continual effort and patience to cultivate a devoted audience (Patel 2018; Pulizzi & Piper 2023).

In this regard, a brand may create trust and credibility with its audience by offering continuous, valuable content, eventually leading to sales and customer loyalty. Content marketing can also assist a brand in positioning itself as an industry thought leader, raising brand awareness and enhancing search engine rankings. The key to successful content marketing is persistent effort and a thorough awareness of the target audience's demands and interests (Pulizzi, 2021).

As a content marketing method, a blog aims to provide visitors with helpful and informative articles on a specific topic or niche. A blog differs from a standard website in that it is routinely updated with new content, often in the form of articles or posts (Forsey 2019).

For developing and sustaining a strong online presence, blogging is thus a crucial element of content marketing. Businesses can use blogging to educate and inform their target audience by sharing their knowledge and thoughts on a specific topic or industry. Blogging also assists in establishing the business as a thought leader in their industry and generating traffic to their website via search engine optimisation (SEO) (Pulizzi & Piper 2023). Blogging can build relationships with potential customers by providing useful information and responding to their needs and issues. It can also subtly promote products or services by offering relevant information, answering questions, and addressing issues, resulting in a greater understanding of the business, its solutions, and its value proposition (Hajarian et al. 2021).

2.3 Content marketing and brand authenticity

Despite the absence of academic literature on the role of content marketing in brand authenticity, practitioner literature continues to relate to the concept of authentic content marketing for a brand to be viewed as genuine. Practitioners argue that creating honest, transparent, and audience-resonant content is the foundation of authentic content marketing, which is critical for establishing trust with customers and maintaining long-term connections with them. This entails conveying brand-aligned stories, values, and beliefs, as well as connecting with the audience based on shared values and interests, amongst other things (Jones 2018; McNabb 2020). Authentic content marketing is also explained as “the practice of providing relatable information that entertains and educates your audience in a way that helps them form strong and loyal connections with your brand” (nytlicensing n.d.).

According to David (2015), customers are nowadays bombarded with marketing messages, and their distrust toward advertising has grown. Brands must thus be honest in their messaging to break through the noise and develop trust with customers, which content marketing can help with. Authenticity not only helps brands create credibility, but it also helps them separate themselves from the competition. Brands may create an emotional connection with their audience and long-term partnerships based on trust and loyalty by presenting authentic stories and beliefs (David 2015). However, authentic content marketing could also be at risk because of the increased use of

artificial intelligence writing tools that might generate blog posts devoid of any emotional appeal or connection (Safier 2022).

Based on David's (2015) perspective, this study argues that utilising an authentic linguistic style when blogging can help with authentic communication.

2.4 Using an authentic language style in content marketing.

The use of language is critical to the effectiveness of content marketing. While advertising and marketing are important for business survival, using language can create a strong relationship between the brand and its customers, resulting in greater customer loyalty, repeat purchases, and word-of-mouth referrals (Millambo et al. 2022). Language is significant in content marketing because it is crucial in crafting a brand's messages and engaging with customers (Cadman 2022).

Furthermore, words can elicit emotion, and emotionally charged content is more likely to be shared, amplifying the brand's messages. Using specific words can help build a brand's voice and personality, making content more approachable (Alton 2020; Cadman 2022).

The language used in blogging, for example, might influence how the target audience perceives a product or service, and thus the success of a marketing campaign. Word choice can also help generate trust, trustworthiness, and an emotional connection with the audience (Cadman 2022). Already in 2014, Zandan (2014) argued that blog posts should utilise a conversational and approachable tone, plain language, and short phrases to make content more accessible and engaging. The use of personal pronouns and storytelling tactics was also suggested to assist in developing a relationship with readers, a viewpoint shared by other scholars (Turnbull 2016; Soard 2017).

Given that language may assist businesses in effectively communicating their message and connecting with their audience (Alton 2020), using words as a tool in content marketing when blogging becomes essential.

The use of words in blog postings that reflect authenticity (sincerity or genuineness) is of interest in this paper. The LIWC-22 program analyses authenticity by searching for linguistic clues associated with authenticity, such as the use of first-person pronouns, concrete sensory terms, and emotional language. Using words associated with authenticity might imply an honest or genuine writing style. As a result, the LIWC program can provide useful insights into linguistic patterns related to authenticity (Boyd et al. 2022).

A language style associated with authenticity can help a brand identify itself as trustworthy, reputable, and authoritative. Authenticity can also contribute to a more favourable perception of a brand's authenticity, increasing the possibility that customers will engage with the business (Lalicic & Weismayer 2017). Considering the language style associated with authenticity within the context of content marketing practices addresses a gap in the existing literature.

3. METHODOLOGY

Using the Linguistic Inquiry and Word Count (LIWC-22) tool, this study adopts a social constructivist research paradigm to investigate the language used in 20 of the world's top content marketing blogs. A social constructivist worldview is a theoretical framework that emphasises the

impact of language, culture, and social interactions on human knowledge, beliefs, and practices. It provided a useful lens for analysing the language used in content marketing blogs for this study, as it highlighted the ways in which language is both a commodity and a producer of social reality (Allan 2018).

LIWC-22 is a text analysis tool for measuring many elements of language, including authenticity. The LIWC-22 program analyses a text and compares it to a collection of linguistic categories and psychological states. LIWC-22 can analyse more than 100 text dimensions, as validated by prominent experts worldwide. LIWC, for example, has been utilised and validated in more than 20 000 scientific articles (Boyd et al. 2022).

The sample frame came from the Marketing Insider Group and Feedspot blogs, which both reported on the world's best content marketing blogs. However, the 20 blogs were purposively chosen for their relevance to content marketing, popularity and influence, diversity, and the quality and consistency of their content. The study's use of 20 blogs was deemed sufficient for analysis with the LIWC-22 tool for two reasons. Firstly, the 20 blogs were chosen carefully to reflect prominent blogs from experienced authors and to contain a considerable amount of important text data. Secondly, conducting the study on a smaller number of blogs simplified the analysis and lowered the likelihood of errors or inconsistencies. Because some of these blogs had thousands of blog posts due to the age of their domains, a minimum of five blog posts from each blog were chosen to analyse their linguistic characteristics as needed by the LIWC software. Furthermore, several of the blogs in the sample have been around for many years and have a solid reputation for delivering excellent insights and practical suggestions on various elements of content marketing, content development, and SEO. Many have a sizable email subscriber list, which is frequently a sign of their reputation and influence in the field.

The text from the selected blogs in the public domain was carefully collected and saved in a Word document. The text data was then pre-processed so the LIWC-22 program could analyse it. This included deleting any unnecessary formatting or special characters. Following that, the analysis was performed, and the results were interpreted in accordance with the research question. After cleansing the data, 105 066 words were examined for authentic linguistic patterns.

With its demonstrated validity, reliability, standardisation, and widespread use in research, the LIWC program is a dependable instrument for analysing text data. It has been verified in various research studies and has been found to be highly reliable in inter-rater reliability testing (Ireland et al. 2011; Schwartz et al. 2013). The program codes text data using a standard set of rules and categories, ensuring that it is applied consistently across different studies, increasing the reliability and validity of the results. Given its broad use in research, a considerable body of evidence supports its reliability and validity (Boyd et al. 2022).

4. RESULTS

The analysis results are shown in Table 1 in terms of the blog's name and the language categories of analytic, clout, and authentic.

Table 1: Results in terms of the language categories of analytic, clout and authentic

| Blog name | Analytic | Clout | Authentic |
|-----------------------------|-----------------|--------------|------------------|
| Ahref | 81,91 | 53,05 | 13,4 |
| Buzzsumo | 68,73 | 86,55 | 47,05 |
| Clickz | 77,98 | 74,55 | 28,69 |
| Content Marketing Institute | 75,98 | 58,9 | 24,72 |
| Content Strategist | 56,26 | 80,26 | 25,45 |
| Copy Hackers | 67,2 | 84,34 | 35,3 |
| Copyblogger | 66,66 | 93,34 | 19,39 |
| Hubspot | 75,64 | 89,77 | 14,72 |
| Influenceandco | 70,04 | 89,13 | 27,29 |
| Kissmetrics | 81,74 | 80,44 | 17,24 |
| Marketing Insiders Group | 64,15 | 86,66 | 19,51 |
| Marketing Proffs | 81,45 | 51,27 | 30,09 |
| Moz | 74,89 | 59,43 | 54,97 |
| OptinMonster | 70,55 | 90,44 | 8,86 |
| Orbid Media | 64,27 | 69,95 | 39,87 |
| PDA Social Neil Schaffer | 75,15 | 70,9 | 15,85 |
| Problogger | 67,71 | 64,34 | 67,24 |
| Top Rank Blog | 75,04 | 75,19 | 13,43 |
| Wordstream | 85,12 | 85,46 | 60,86 |
| SmartBrief | 70,5 | 73,63 | 25,78 |

Below are the explanations of the various LIWC-22 columns:

Analytic: This column assessed the level of analytical thinking and the complexity of the language used. A high score in this column implies that the blog's language is complicated and sophisticated,

whilst a low score indicates that the language is simple and straightforward (Boyd et al. 2022).

Clout: This column assessed the level of confidence and influence expressed by the blog's language. A high number in this column implies that the author is self-assured and authoritative, whereas a low score shows that the author is more hesitant and less influential (Boyd et al. 2022).

Authentic: This column assessed the degree of personal authenticity and honesty portrayed through the blog's language. A high score in this column shows that the author's writing is authentic and honest, whereas a low score implies that the author's writing is less authentic or genuine (Boyd et al. 2022).

Thus, the highest and lowest scores in Table 1 illustrate the relative strengths and weaknesses of each blog in terms of its language style.

Ahref has the highest Analytic column score (81,91), indicating that the blog's language is complicated and sophisticated. This could imply that the site caters for an academically inclined readership that values in-depth analysis and ideas. Wordstream has the best Clout (85,46) and Authentic (60,86) scores, indicating that the language is both confident and influential while also honest and authentic. This could imply that the blog aspires to be a reliable source of industry information. OptinMonster has the lowest score in the Authentic column (8,86), indicating that readers may find the blog's language unreal or dishonest. This may imply that the blog would benefit from more personal and authentic language to connect with readers more effectively.

Some blogs that are supposed to have a high level of authenticity, given their focus on content marketing, and creating relationships with their audience, have relatively low ratings in the Authentic column. For example, popular content marketing blogs Ahref, Buzzsumo and Hubspot all have Authentic column scores below 30. Only three of the 20 blogs had Authentic scores higher than 50.

According to the results, several of these blogs could benefit from using more personal and honest language to connect with their followers and establish closer relationships. These bloggers may have prioritised analytical thinking and influence over authenticity to deliver meaningful information and insights. On the other hand, certain blogs, such as Problogger, have high Authentic column scores, indicating that they value personal authenticity and honesty in their writing. This could also imply that these blogs effectively forged better relationships with their readers and established themselves as reliable sources of information in the business.

The strong Analytic scores for all 20 blogs indicate that they prioritise analytical thought and language complexity in their writing. This could be because content marketing blogs strive to deliver relevant insights and information to their visitors in an entertaining and instructive manner. These blogs can provide a deeper level of comprehension and insight into the issues they cover by using complicated language and analytical thinking.

Furthermore, high Analytic ratings may represent the experience and knowledge of these blogs' creators. Content marketing blogs are frequently authored by industry professionals with a

thorough understanding of their subjects and the ability to provide insightful analysis and insights. As a result, the terminology used in these blogs may reflect the authors' expertise and technical understanding.

It is crucial to note, however, that a high Analytic score does not always imply better writing or more compelling material. While analytical thinking and language complexity can be useful in delivering deeper insights and knowledge, it is equally necessary for content marketing bloggers to be clear, concise, and engaging in their writing to grab and hold their readers' attention.

Also, while these categories are distinct, they can all contribute to the overall efficacy of blog posts. For example, content marketing blogs that prioritise analytical thinking (as represented in the Analytic column) may be more likely to provide their viewers with useful insights and information. Simultaneously, content marketing blogs prioritising personal authenticity and honesty (as represented in the Authentic column) may be more likely to establish trust and credibility with their audience.

Furthermore, the Clout column can show how confident the authors' writing style is, which can help to establish them as reputable and authoritative sources of knowledge in their industry. This is vital for content marketing blogs who want to establish themselves as thought leaders in their sector.

While the authenticity results are surprising given that these blogs all represent content marketing specialists, it is possible that being viewed as influential, precise and structured was prioritised over authenticity. Different blogs in different industries may have yielded different results.

5. DISCUSSION

The results of this study suggest that the linguistic patterns used by the blogs in the sample are associated more with confidence and analytical thinking than with authentic language patterns.

Returning to the research question of whether the linguistic patterns of some of the top content marketing blogs in the world could be associated with authenticity, it is clear from the linguistic patterns of 17 of the 20 blogs analysed that they may prioritise precision and structure over authenticity due to the nature of the topics discussed in the posts. Based on the analysis, the writing style of these blogs seemed less authentic. The emphasis is on producing polished and professional content that may be lacking in personality or genuine emotional connection with the audience. The language style was extremely technical or jargon-heavy, making it difficult for users to grasp and engage with the content (Lalicic & Weismayer 2017). However, irrespective of this shortcoming, these 17 blogs with low authenticity scores are authoritative in the content marketing realm.

By delivering meaningful, informative, and interesting content, bloggers attempt to create trust and credibility with their audience. In content marketing, authenticity indicates that the content offered is real, accurate, and trustworthy. Thus, the language should also be genuine and truthful (Cadman 2022; Jones 2018; McNabb 2020).

When authenticity is compromised in content marketing, it can erode the brand's reputation and trust with its audience. Readers can often detect insincerity or lack of authenticity in content, which can lead to a loss of engagement or even a negative impression of the brand (David 2015). In

content marketing, authenticity is critical because readers want to connect with the writer and the brand on a deeper level. They want to believe that the content is real and embodies the brand's values and personality while also resolving their issues. As a result, while the language used must be exact, structured, and complex enough to express the desired message effectively, it must also reflect sincerity (Jones 2018; McNabb 2020).

Furthermore, authors' perceived influence or power (clout) might influence how readers perceive their content. If the author is regarded to be powerful, their content may be perceived as more authoritative or believable. However, regardless of the author's perceived power, if the content is not authentic, it may be seen as less believable (Boyd et al. 2022).

The language used in the 20 content marketing blogs may essentially be a product of the social reality established by the nature of the topics discussed in the blog posts and the emphasis on professionalism and polish in content development (Allan 2018).

5.1 Theoretical implications

This study adds to the body of knowledge in two ways. Firstly, the study brings the concept of authentic content marketing to the academic literature, filling a gap in the existing literature (see Jones 2018; McNabb 2020). While the concept of content marketing has been widely addressed in academic research, the concept of authentic content marketing has largely been absent from academic discussions and has been debated mostly in practitioner literature, such as industry journals and marketing blogs. Since content production is at the core of effective content marketing, authenticity is a crucial component that makes a brand stand out (Koob 2021). Authenticity in content marketing has become imperative, especially because of the increased use of artificial intelligence writing tools devoid of the brand's personality and often monotonous tone. Secondly, the study may spark some scholarly debate on the concept of authentic content marketing and serve as the foundation for future research. More studies can help to gain a deeper knowledge of the concept of authentic content marketing and its impact on the efficacy of content marketing in blogging in an age of using artificial intelligence.

5.2 Practical implications

Based on the results of this study, content marketers must consider various practical aspects. First and foremost, content marketers must be aware of the language style they use when blogging and prioritise an authentic language style. This entails using language that is not only truthful and honest but also emotive. Secondly, content marketers should avoid using mostly technical or jargon-heavy language. Instead, language should be structured and complicated enough to deliver the desired idea effectively while staying accessible and relatable to the audience. Thirdly, content marketers should be aware that apparently authority or influence (clout) is not always more significant than authenticity. As a result, authenticity must be prioritised to emotional connections with the target audience. Blogs can help develop trust and establish a personal relationship with their audience by using a language style that resonates with readers on an emotional level. This emotional connection can be especially powerful in content marketing, where the goal is to establish long-term connections with customers based on similar values and interests. Emotional

language can also make content more memorable and shareable, expanding its reach and impact, which can be problematic when only using artificial intelligence writing tools.

6 LIMITATIONS

The study is not devoid of any limitations. Firstly, the findings cannot be generalised to other blogs and are only applicable to the blogs in the sample. Secondly, a larger sample could have produced different results. Lastly, the study did not measure readers' perceptions of the blog posts and rely on a text analysis by LIWC-22.

7. CONCLUSION

The study examined whether language patterns found in some of the world's top content marketing blogs relate to authenticity, as determined by the LIWC-22 program. The results of this study provide useful insights into the linguistic patterns of popular blogs and their alignment with authenticity. Unexpectedly, several of the blogs in the sample seemed to have prioritised accuracy and structure above authenticity, suggesting that the language used in content marketing may be impacted by the issues covered as well as the focus on professionalism and polish in content generation. However, because an emotional connection is necessary for content marketing, authenticity must also be addressed.

Future research could use a human sample to investigate the impact of language styles on consumer behaviour and brand perceptions in content marketing. Furthermore, more research on the concept of authentic content marketing is required by comparing human writing styles with writing generated by artificial intelligence tools.

REFERENCES

- Akbar, M. M., & Wymer, W. (2017). Refining the conceptualization of brand authenticity. *Journal of Brand Management*, 24(1), 14–32.
- Allen, M. (2018). The SAGE encyclopaedia of communication research methods. *The SAGE Encyclopaedia of Communication Research Methods*, 4.
- Alton, L. (2020, March 2). *5 reasons why word choice matters in content marketing*. Agility PR Solutions Retrieved from <https://www.agilitypr.com/pr-news/public-relations/5-reasons-why-word-choice-matters-in-content-marketing/>
- Beverland, M.B., Lindgreen, A., & Vink, M.W. (2008). Projecting authenticity through advertising: consumer judgments of advertisers' claims. *Journal of Advertising*, 37(1), 5–15.
- Boyd, R., & Ashokkumar, A., Seraj, S., & Pennebaker, J. (2022). The development and psychometric properties of LIWC-22. 10.13140/RG.2.2.23890.43205.
- Cadman, B. (2022). *Why Word Choice Matters in Content Marketing*. Seed. Retrieved from <https://helloseed.co.uk/why-word-choice-matters-in-content-marketing/>
-

-
- David, M. (2015, September 16). *Authenticity in Your Content Marketing - Content Creation Advice*. Crowd Content. Retrieved from <https://www.crowdcontent.com/blog/content-marketing/authenticity-through-content-marketing/>
- Du Plessis, C. (2022). A scoping review of the effect of content marketing on online consumer behavior. *SAGE Open*, 12(2), 215824402210930.
- Du Plessis, C. (2023). Emotional brand communication on social media to foster financial well-being. *Online Journal of Communication and Media Technologies*, 13(4), e202342–e202342. <https://doi.org/10.30935/ojcm/13452>
- Dwivedi, A., & McDonald, R. (2018). Building brand authenticity in fast-moving consumer goods via consumer perceptions of brand marketing communications. *European Journal of Marketing*, 52(7/8), 1387–1411.
- Forsey, C. (2019). *What Is a Blog, & Why Should You Create One*. Hubspot.com. Retrieved from <https://blog.hubspot.com/marketing/what-is-a-blog>
- Fritz, K., Schoenmueller, V., & Bruhn, M. (2017). Authenticity in branding – exploring antecedents and consequences of brand authenticity. *European Journal of Marketing*, 51(2), 324–348.
- Hajarian, M., Camilleri, M.A., Díaz, P., & Aedo, I. (2021). A taxonomy of online marketing methods. In *Strategic Corporate Communication in the Digital Age* (pp. 235–250). Emerald.
- Hernandez-Fernandez, A., & Lewis, M.C. (2019). Brand authenticity leads to perceived value and brand trust. *European Journal of Management and Business Economics*, 28(3).
- Ireland, M. E., Slatcher, R.B., Eastwick, P.W., Scissors, L.E., Finkel, E.J., & Pennebaker, J.W. (2011). Language style matching predicts relationship initiation and stability. *Psychological Science*, 22(1), 39–44.
- Jepson, O. (2022, October 20). *Brand authenticity: What it is and tips for building it*. Sprout Social. Retrieved from <https://sproutsocial.com/insights/brand-authenticity/>
- Jones, K. (2018, April 9). *Why authentic content marketing matters now more than ever*. Search Engine Journal. Retrieved from <https://www.searchenginejournal.com/authentic-content-marketing/239597/#close>
- Koob, C. (2021). Determinants of content marketing effectiveness: Conceptual framework and empirical findings from a managerial perspective. *PLOS ONE*, 16(4), e0249457. PLOS. <https://doi.org/10.1371/journal.pone.0249457>
- Lalicic, L., & Weismayer, C. (2017). The role of authenticity in airbnb experiences. *Information and Communication Technologies in Tourism 2017*, 781–794.
- McNabb, S.J.A. (2020). *Content marketing authenticity – why is it so important?* Smith Brothers Media. Retrieved from <https://smithbrothersmedia.com.au/get-smarter/content-marketing-authenticity-why-is-it-so-important/>
-

Mehdi, S. (2023). *Why Authenticity is Key When Creating Content That Tells Your Unique Brand Story*. Retrieved from <https://www.linkedin.com/pulse/why-authenticity-key-when-creating-content-tells-your-syed/>

Millambo R., Onyiego S., & Kisembe, E. (2022). Effect of language use in healthcare content marketing on consumer behaviour among Facebook users. *Journal of Linguistics, Literary, and Communication Studies*, 1(1), 55-67.

Morhart, F., Malär, L., Guèvremont, A., Girardin, F., & Grohmann, B. (2015). Brand authenticity: an integrative framework and measurement scale. *Journal of Consumer Psychology*, 25(2), 200–218.

Moulard, J.G., Raggio, R.D., & Folse, J.A.G. (2020). Disentangling the meanings of brand authenticity: The entity-referent correspondence framework of authenticity. *Journal of the Academy of Marketing Science*, 49(1), 96–118.

nytlicensing. (n.d.). *What Is Authentic Content Marketing?* NYTLicensing. Retrieved from <https://nytlicensing.com/latest/marketing/what-authentic-content-marketing/>

Patel, N. (2018). *Content Marketing Made Simple: A Step-by-Step Guide*. Neil Patel. Retrieved from <https://neilpatel.com/what-is-content-marketing/>

Pulizzi, J. (2021). *CONTENT INC: start a content-first business, build a massive audience and become radically... successful with little to no money*. New York: McGraw-Hill Education.

Pulizzi, J., & Piper, B.W. (2023). *Epic content marketing, second edition: break through the clutter with a different story, get the most out of your content, and build a community in Web3*. New York: McGraw-Hill Education.

Rixom, J.M., & Rixom, B.A. (2023). Perceived brand authenticity: Examining the effects of inferred dedication and anticipated quality on consumers' purchase intentions and actual choices. *Journal of Consumer Behaviour*. <https://doi.org/10.1002/cb.2156>

Safier, R. (2022). How to Make the Most of AI Writing Tools, According to Bloggers. Hubspot. Retrieved from <https://blog.hubspot.com/marketing/ai-writing-tools-blogging>

Schwartz, H.A., Eichstaedt, J.C., Kern, M.L., Dziurzynski, L., Ramones, S.M., Agrawal, M., Shah, A., Kosinski, M., Stillwell, D., Seligman, M.E.P., & Ungar, L.H. (2013). Personality, gender, and age in the language of social media: The Open-Vocabulary Approach. *PLoS ONE*, 8(9), e73791.

Soard, L. (2017, May 14). *Why storytelling is a vital part of blogging*. WHSR. Retrieved from <https://www.webhostingsecretrevealed.net/blog/blogging-tips/why-storytelling-is-a-vital-part-of-blogging/>

Södergren, J. (2021). Brand authenticity: 25 Years of research. *International Journal of Consumer Studies*, 45(4), 645–663.

Turnbull, A. (2016, September 8). *How storytelling increased our blog's engagement by 300%*. Groove Blog. Retrieved from <https://www.groovehq.com/blog/storytelling-in-content-marketing>

Zandan, N. (2014). *How to write a popular blog: the common language components of the 15 most popular blogs*. Ww.quantified.ai. Retrieved from <https://www.quantified.ai/blog/how-to-write-a-popular-blog-the-common-language-components-of-the-15-most-popular-blogs/>

SSIRC 2023-222**THE MEDIATING ROLE OF ORGANISATIONAL SUPPORT AND FAIRNESS IN THE RELATIONSHIP BETWEEN JOB SATISFACTION AND AFFECTIVE COMMITMENT****C. Mabaso**

University of Johannesburg, South Africa

D.V. Mogoai

University of Johannesburg, South Africa

ABSTRACT

The aim of this study was to examine the mediating role of organisational support and fairness in the relationship between job satisfaction and affective commitment in a South African banking organisation. This was motivated by studies that showed that lack of support and unfair practices in the workplace increase the likelihood of workers quitting their jobs. This trend is particularly evident in the South African banking organisation. The present study followed a positivist research philosophy and used a quantitative research approach with a cross-sectional design on a convenience sample of 454 employees working in a South African banking organisation. A process macro-mediator regression was used to predict affective commitment based on job satisfaction, partialling out organisational support and fairness. The results showed that job satisfaction has a significant positive impact on affective commitment. Organisational support and fairness had a mediating effect on affective commitment through job satisfaction. An employer organisation that supports its employees and treats them fairly would likely motivate employees to be satisfied with working conditions and relationships with colleagues, which would lead to psychological attachment to its organisation. The findings of this study contribute to the body of knowledge that focuses on organisational support, equity and work-related outcomes.

KEYWORDS: organisational support, fairness, job satisfaction, affective commitment**1. INTRODUCTION**

Organisations worldwide are striving to manage people in the workplace as part of their management processes (Patrick & Sonia, 2012). A well-managed organisation sees employees as the most important centre for quality and productivity (Krishnan & Mary, 2012). An effective organisation tends to promote satisfaction and psychological commitment among its employees (Mercurio, 2015). According to Mitonga-Monga (2020), satisfied employees are likely to be psychologically attached to their employer. Job satisfaction is an important determinant of employee performance and affective commitment. Affective commitment refers to how employees develop a sense of belonging and identification with the employer (Mitonga-Monga & Cilliers, 2016). Job satisfaction refers to an attitude that shows whether a person is satisfied or dissatisfied with their job. It also conveys positive feelings to the employee about their employer and how the employer provides fairness, policies, and support. (Spector, 1997).

Studies have shown that organisational support and fairness are important factors in determining company turnover (Wang and Wang, 2020). Organisational support at work is seen as a person's general belief about the extent to which the employer cares about their welfare, values and contribution (Lambert, Keena, Leone, May & Haynes, 2020). Perceived organisational support was found to have a positive effect on job satisfaction (Indra, Asnora, Limbong & Zufrie, 2022) and affective commitment (Eisenberger, Fasolo, & Davis-LaMastro, 1990) and a negative effect on employees' turnover intention (Lambert et al., 2020).

Fairness is seen as the extent to which an employee perceives the work environment as fair and impartial in terms of outcome distribution and decision-making (Linge et al., 2015). Pang, Fang, Wang, Mi & Su. (2023) examined the mediating effect of organisational fairness on the relationship between job satisfaction and social sustainability. Pang et al. (2023) found that organisational fairness influences employees' job satisfaction. How organisational support and fairness mediate the relationship between job satisfaction and affective commitment in the South African banking industry remains to be explored.

1.1 Research work context

The South African banking sector is the largest on the African continent, contributing 88% to the South African Gross Domestic Product (GDP) in 2020. In 2021, total Tier 1 capital in the sector reached over US\$34.4 billion. Furthermore, the country's five largest financial institutions were among the top ten African banks by asset value in the same year. Despite above-average salary increases, the South African banking sector faces significant challenges in recruiting new talent and slowing attrition. In 2022, employee attrition reached 23.4%, the highest level since 2019, and employee turnover increased to 4.8%, the same level as in 2020 but still below the historical trend line of 7% to 8% (Lars Kamer, 2023). According to Statistics SA (2023), the high turnover rate is due to the highly competitive labour market fuelled by staff shortages and economic volatility. However, the banking industry in SA has invested in increasing wages, providing support, and applying fairness as part of its talent management strategy. Despite these investments, it is challenging for the banking industry in SA to retain non-officers while ensuring sustainability. Therefore, this study examined the mediating effect of organisational support and fairness on the relationship between job satisfaction and affective commitment in the South African banking sector.

2. THEORETICAL PERSPECTIVES AND HYPOTHESES

Organisational support theory (OST) (Eisenberger et al., 1986) and social exchange theory (SET) (Blau, 1964) are relevant to this study as they help to understand the intervening role of organisational support and fairness on the relationship between job satisfaction and affective commitment. Organisational support theory emphasises employees' view of an organisation as a living entity that has a purpose and intention. According to Eisenberger et al. (1986), employees perceive employer support as a meaningful explanation for past perceived favourable or unfavourable treatment by the organisation and as an aid in predicting future treatment. The theory of OST is based on the employer's appreciation of employees' contributions. Employees who perceive that their employer values their contributions and well-being are likely to perform more

outstandingly on behalf of the organisation. Organisational support is a key determinant of individual employee attitudes and behaviours (Rhoades & Eisenberger, 2019). Cropanzano and Mitchell (2005) argue that, in practice, employees may perceive that their employer values their efforts and contributions. They tend to be satisfied, contribute to productivity, and have less intention to quit (Cropanzano & Mitchell, 2005).

In SET, it is argued that interactions are usually seen as interdependent and dependent on the actions of another person. SET also emphasises that these interdependent transactions have the potential to create high-quality relationships, although, as we will see, this is only the case in certain circumstances (Cropanzano & Mitchell, 2005). According to Ntseke, Mitonga-Monga & Hoole (2022), individuals' actions are guided by what they hope to gain from the relationship in which they are involved. The SET is based on the exchange of relationships and trust. For example, employees who are supported and treated relatively well feel obliged to reciprocate to the employer because they value their contributions. They make an effort, perform for the employer and are satisfied (Ntseke et al., 2022).

2.1 Organisational Support

Perceived organisational support (POS) was developed by Eisenberger et al. (1986) to capture the course of this exchange. Perceived organisational support concerns employees' general opinion of how much their organisation values their contributions and takes their welfare seriously (Currie & Dollery, 2006). Employers generally value the commitment and loyalty of their employees.

According to Krishnan and Mary (2012), research on POS began with the observation that when managers care about their employees' commitment to the organisation, employees focus on the organisation's commitment to them. For employees, the organisation is an important source of socio-emotional resources such as respect and caring, as well as material benefits such as wages and medical benefits. Being highly valued by the organisation helps to satisfy employees' needs for recognition, esteem and belonging. Positive evaluation by the organisation also indicates that increased efforts are noticed and rewarded. Employees, therefore, have an active interest in the esteem in which they are held by their employers (Krishnan & Mary, 2012). POS is positively related to many outcomes that are beneficial to both the organisation and the individual, namely conscientiousness in performing usual work tasks, organisational commitment, and job satisfaction. Therefore, the level of perceived organisational support of employees needs to be constantly monitored to ensure favourable outcomes for the organisation that ultimately lead to profitability (Krishnan & Mary, 2012).

2.2 Fairness

The concept of organisational justice originates from the social exchange theory proposed by Homans (1958), which refers to individuals in the process of social exchange expecting a fair distribution of effort and gain. Niehoff and Moorman (1993) divided the organisational justice scale into three dimensions, which are: (1) distributive justice, a degree to which employees perceive whether their work tasks and salary distribution methods are fair; (2) procedural justice, which means the degree to which employees perceive whether the organisation's decision-making

procedures and processes are fair; (3) interactional justice is the degree to which employees perceive whether the interactive communication of organisational leaders in the decision-making process is fair. Justice researchers often divide fairness into three types: distributive, procedural and interactional justice. Distributive justice is about the fair distribution of resources. Procedural justice refers to the fairness of the decision-making process that decides how resources are distributed. Interactional justice is often divided into two subtypes: informational justice, which refers to employees' access to information about organisational procedures, and interpersonal justice, which refers to the dignity and respect with which individuals are treated during decision-making processes (Eisenberger et al., 2019). Of these types of justice, procedural justice has been found to be particularly relevant to POS (Rhoades & Eisenberger, 2002; Kurtessis, Eisenberger, Ford, Buardi, Stewart, & Adis, 2017). These meta-analytic findings are not surprising, as organisations are typically perceived to have considerable control over the procedures associated with the distribution of resources (including rewards and staff benefits), so judgments of procedural fairness can strongly influence perceptions of organisational support.

2.3 Job Satisfaction

Job satisfaction has been one of the most studied variables in organisational research in recent decades (Sušanjanj & Jakopec, 2012). Interest in job satisfaction stems from its relationships with other organisational outcomes, including organisational commitment, absenteeism, turnover and performance. Job satisfaction has been defined and measured as a global construct and as a concept with multiple dimensions or facets. Studies in the literature address the relationship between perceived fairness and organisational commitment and between perceived fairness and intention to leave (Sušanjanj & Jakopec, 2012). According to Wyngaard (2017), job satisfaction is the attitude of employees towards their work and the organisation in which they perform their work. It is the employee's effective response to a job based on a comparison of actual and desired outcomes. Aziri (2011) defined job satisfaction as a positive emotional response to the evaluation of job-specific aspects. It has been reported that among these aspects, managers and their leadership style influence the satisfaction level of employees in an organisation (Wyngaard 2017).

Yildiz and Kara (2017) postulate that when an organisation provides a rewarding work environment for employees, they are more willing to align their interests with those of the employer, creating an environment that is more mutually beneficial. Burin, Roberts-Lombard, and Klopper (2015) argue that job satisfaction is determined by employees' positive and negative perceptions of the work environment. A quality work environment is related to employee's job satisfaction, organisational commitment, and subsequent intention to stay with the organisation. According to Ruizalba et al. (2014), employees are more satisfied and engaged when they believe that management is sincerely interested in their well-being. Employees are ultimately responsible for creating company wealth. In view of this, employers provide benefits to their employees as motivation to increase job performance and job satisfaction, thereby increasing employee productivity and commitment to the company (Odunlade, 2012).

2.4 Affective Commitment

According to Allen and Meyer (1991), affective commitment is defined as the employee's emotional attachment to, identification with, and commitment to the organisation they work for. It describes the employee's affective orientation towards the organisation. This positive emotional commitment seems to be based on fairness, support from senior managers and colleagues, and appreciation of personal value and contribution (Mercurio, 2015). Affective commitment is one of the dimensions of organisational commitment, and it reflects the commitment of an individual to an organisation (Meyer, Stanley, Herscovitch & Topolnysky 2002). In affective commitment, an employee is psychologically attached to, associated with, and consciously remains loyal to the organisation (Allen & Meyer, 1990). Employees with a solid affective commitment stay in the organisation because they want to (Meredith et al., 2023).

For this study, Organisational support and fairness can be specified as ways to improve affective commitment. Organisational support improves affective commitment in this way: 1) Caring about the employee's well-being and treating them fairly; 2) Considering the employee's goals and values; 3) Helping when employees need a favour or have a problem; and 4) forgiving mistakes. Fairness improves affective commitment in this way: 1) that good work is recognised; 2) there are opportunities for advancement; and 3) there are opportunities for high earnings (HR Glossary, AIRH). Affective commitment indicates dedication and loyalty to the organisation the employees work for. Employees with high affective commitment identify with the organisation, feel like they belong, and are willing to pursue the organisation's goals. Organisations can increase affective commitment by creating a better employee experience in multiple ways, such as providing support to employees and rewarding employees fairly.

2.5 Relationship between job satisfaction and affective commitment

Researchers have studied the relationship between job satisfaction (JS) and affective commitment (AC) (Akuinyemi et al., 2022). Several studies show that job satisfaction is an important variable that influences employees' psychological attachment to their employer and determines their willingness to quit employment in the employer organisation (Indra et al., 2023). For example, Demircioglu (2023) found that JS is positively related to AC. JS predicts organisational commitment and reduces turnover intention and absenteeism (Mitonga-Monga, 2020). Positive perceptions of JS are related to high levels of AC, while negative perceptions are related to turnover intention. Employees who are satisfied with their working conditions, performance and well-being are likely to have high levels of AC, making them less likely to leave. Meredith, Moolenaar, Struyve, Vandecandelaere, Gielen, and Kyndt (2023) also found that JS has a positive impact on AC. Therefore, the researchers hypothesised that JS is related to AC.

2.6 Perceived organisational support and fairness as mediators

Previous studies have confirmed that JS predicts AC (Akinyemi, George & Ogundelele, 2022; Demircioglu, 2023; Lambert et al., 2020; Indra et al., 2023; Pathardikar et al., 2023). In contrast, limited research has been conducted on the mediating effects of POS and AC. Mitonga-Monga and Cilliers (2016) believe that satisfied employees can increase their AC and reduce turnover intention and absenteeism. The authors argue that employees who feel that their employer values

their contributions and treats them fairly are likely to have a sense of fulfilment and be satisfied with their work environment. Employees are likely to identify with their employer's goals and values. There is also evidence that fairness has a positive impact on JS and AC (Indra et al., 2023). Therefore, it can be hypothesised that POS and fairness mediate the relationship between JS and AC.

3. METHODOLOGY

The present study followed a positivist research philosophy and used a quantitative research approach with a cross-sectional design on a convenience sample of N=454 employees working in a South African banking organisation. A process macro-mediator regression was used to predict affective commitment from job satisfaction, partialling out organisational support and fairness.

3.1 Research design

A cross-sectional survey research design was used in the current study. According to Fowler (2009), cross-sectional research design refers to a design where data is collected at one point in time. A cross-sectional research design normally collects the data at a single point from different individuals at the time (Hair, Black, Babin, & Anderson, 2019). A survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying the sample of that population (Creswell, 2014).

3.2 Sampling method

The current study utilised convenience sampling, in which respondents were chosen based on their availability and convenience (Creswell, 2014). A sample size calculator for the total population, with 95% confidence level, 5% margin of error, and population proportion of 50%, determined the suitable size of the sample as 454 participants (Calculator.net, 2008). The sample ($N = 454$) in terms of demographic information is presented in Table 1.

Table 1. Demographic Profile of the Sample

| Variable | Frequency | % |
|-------------------|-----------|------|
| Gender | | |
| Male | 204 | 44,9 |
| Female | 250 | 55,1 |
| Age (years) | | |
| 18–24 | 112 | 24,7 |
| 25–29 | 142 | 31,3 |
| 30–35 | 78 | 17,2 |
| 36–40 | 53 | 11,7 |
| 41–49 | 54 | 11,9 |
| 50-59 | 7 | 1,5 |
| Prefer not to say | 8 | 1,8 |
| Education Level | | |
| Matric | 163 | 35,9 |

| Variable | Frequency | % |
|----------------------------|-----------|------|
| Diploma | 131 | 28,9 |
| Bachelor's degree | 130 | 28,6 |
| Postgraduate Qualification | 29 | 6,4 |

3.3 Research instrument

The current study used a Total Rewards questionnaire, which was developed based on the World at Work total rewards model (Word at Work, 2015) to elicit opinions from employees on compensation aspects. In addition, the shortened version of Eisenberger et al.'s (1986) Survey of Perceived Organisational Support was used to measure employees' perceptions of the extent to which the organisation values their contribution and cares about their well-being. Allen and Meyer (1990) organisational commitment model were used, but the focus was only on affective commitment. The affective commitment scale, when it was used in South Africa, showed a Cronbach's alpha of 0.76 and 0.94, respectively (Makhathini & Van Dyk, 2018; Ngrande, 2021).

3.4 Data analysis

The data were analysed using the Statistical Package for the Social Sciences (SPSS version 28). In the first stage, descriptive statistics were calculated to determine the mean, standard deviation, and Cronbach's alpha coefficients. In the second stage, a correlation analysis was conducted to determine the relationship between perceived organisational support, fairness, job satisfaction and affective commitment. In the final stage, a process macro-mediator regression analysis was conducted to determine whether perceived organisational support and fairness mediate the relationship between job satisfaction and affective commitment. Prior to the multiple regression analyses, collinearity diagnostics were conducted to ensure that zero-order correlations were below the threshold ($r=0.60$) (Hair et al., 2019). To demonstrate statistical significance and reduce the probability of type 1 errors, the researchers chose the statistical significance cut-off value $p \leq 0.05$ and the practical effect size $r = 0.30$ to 0.50 (medium to large effect size) (Coheen et al., 2018).

4. RESULTS AND DISCUSSION

4.1 Results

4.1.1 Descriptive statistics, Cronbach alpha Coefficients and correlation analysis (N=454)

Table 1 presents the descriptive statistics of the study's variables. As indicated in Table 2, the mean scores ranged from ($M=5.05$ to $M=5.30$). The respondents obtained high mean scores for fairness ($M=5.30$; $SD=1.20$), followed by perceived organisational support ($M=5.20$; $SD=1.22$), and job satisfaction ($M=5.13$; $SD = 1.16$), while the lowest mean score was recorded for affective commitment ($M= 5.07$; $SD=1.28$).

4.1.2 Relating perceived organisational support, fairness, job satisfaction and affective commitment.

Table 2 illustrates that perceived organisational support related positively with fairness ($r = 0.76$; large effect size, $p \leq 0.05$), job satisfaction ($r = 0.79$; large effect size, $p \leq 0.05$), and affective

commitment ($r = 0.86$; large effect size, $p \leq 0.05$). Fairness related to job satisfaction ($r = 0.72$; large effect size, $p \leq 0.05$) and affective commitment ($r = 0.75$; large effect size, $p \leq 0.05$). Job satisfaction related to affective commitment ($r = 0.82$; large effect size, $p \leq 0.05$).

Table 2 Descriptive statistics, Cronbach alpha and correlations (N=454)

| Variables | Mean | SD | α | 1 | 2 | 4 | 4 |
|-----------|------|------|----------|---|---------|---------|---------|
| POS | 5.20 | 1.22 | 0.88 | 1 | 0.76*** | 0.79*** | 0.86*** |
| FAIR | 5.30 | 1.20 | 0.96 | | 1 | 0.72*** | 0.75*** |
| JS | 5.13 | 1.16 | 0.86 | | | 1 | 0.82*** |
| AC | 5.07 | 1.28 | 0.95 | | | | 1 |

Note: N = 454. ***, $p \leq 0.001$; **, $p \leq 0.01$; *, $p \leq 0.05$. +, $r \geq 0.10$ (small effect); ++, $r \geq 0.30 \geq r \leq 0.49$ (medium effect); +++, $r \geq 0.50$ (large effect). POS; perceived organisational support, FAIR; fairness, JS; job satisfaction, AC; affective commitment; SD, standard deviation.

4.1.3 Mediation Regression

Table 3 shows that JS ($B=0.63$, $SE=0.08$, 95% CI [0.88,1.11], $\beta=0.38$, $p<0.00$) and POS ($B =0.57$, $SE = 0.04$, 95% CI [0.50, 0.63], $\beta=0.56$, $p=0.00$) were significant predictors of AC. These results support the mediational hypothesis. POS was a significant predictor of AC after controlling for the mediation, JS $B= 1.37$, $SE=0.04$, 95% CI [1.28, 1.45], $\beta=-0.82$, $p=0.00$, which is consistent with mediation. Approximately 82% of the variance in AC was accounted for by the predictors ($R^2 = 0.68$). The indirect effect was tested using a percentile bootstrap estimation approach with 454 samples, implemented with process macro version 3 (Hayes, 2017). These results indicated *that the indirect coefficient was significant* ($B=0.74$, $SE=0.12$, 95% CI [0.50, 0.97]), *and completely standardized* ($B=0.44$). JS was associated with AC scores that were approximately 44 points higher, as indicated by POS.

Table 3 Mediation effect of perceived organisational support and fairness on the relationship between job satisfaction and affective commitment (N=454)

| Consequent | | | | | | | | |
|-------------|-------|------------------------------|------|-------|-------|------------------------------|------|-------|
| Antecedents | | Coefficients | SE | P | | Coefficients | SE | P |
| JS | *a | 0.63 | 0.08 | 0.000 | *c | 0.37 | 0.04 | <0.00 |
| POS | | | | | *b | 0.57 | 0.04 | <0.00 |
| AC | i_M | -0.20 | 0.76 | <.001 | i_Y | 2.43 | 0.93 | <.001 |
| Constant | | | | | | | | |
| | | $R^2=0.80$ | | | | $R^2=0.68$ | | |
| | | F (2,451) =887.16, $p<0.001$ | | | | F (1,452) =958.69, $p<.0001$ | | |

AC, affective commitment; LLCI, lower-level confidence interval; ULCI, upper-level confidence interval.

Table 4 shows that JS was a significant predictor of AC ($B=0.75$, $SE=0.04$, 95% CI [0.69, 0.82], $\beta=0.72$, $p<0.00$) while FAIR was a significant predictor of AC ($B =0.50$, $SE = 0.06$, 95% CI [0.39, 0.61], $\beta=0.31$, $p=0.00$). These results support the mediational hypothesis. POS was a significant predictor of AC after controlling for the mediation, JS ($B= 0.99$, $SE=0.06$, 95% CI [0.88, 1.11], $\beta=-0.60$, $p=0.00$), which is consistent with mediation. Approximately 82% of the variance in AC was accounted for by the predictors ($R^2 = 0.73$). The indirect effect was tested using a percentile bootstrap estimation approach with 454 samples, implemented with Process Macro version 3 (Hayes, 2017). These results indicated indirect coefficient was significant $B=0.34$, $SE=0.06$, 95% CI [0.26, 0.50], completely standardised $B=0.23$. JS was associated with AC scores that were approximately 23 points higher, as indicated by FAIR.

Table 4 Mediation effect of fairness on the relationship between job satisfaction and affective commitment (N=454)

| Antecedents | | Coefficients | SE | P | | Coefficients | SE | P |
|-------------|-------|---------------------------|------|-------|-------|---------------------------|------|-------|
| JS | *a | 0.75 | 0.04 | 0.001 | *c | 0.99 | 0.06 | <0.00 |
| FAIR | | | | | *b | 0.50 | 0.06 | <0.00 |
| AC | i_M | 5.78 | 0.71 | 0.001 | i_M | -0.45 | 0.92 | <0.01 |
| Constant | | | | | | | | |
| | | $R^2=0.52$ | | | | $R^2=0.73$ | | |
| | | $F(1,452)=492.34, p<.001$ | | | | $F(2.451)=958.69, p<.001$ | | |

AC, affective commitment; LLCI, lower-level confidence interval; ULCI, upper-level confidence interval.

4.2 Discussion

The purpose of this study was to examine the mediating role of organisational support and fairness in the relationship between job satisfaction and affective commitment in a South African banking organisation. The results presented in Table 1 indicate a positive relationship between POS, job satisfaction and affective commitment. The results indicate that the higher the POS, the higher the JS and AC. This means that employees who feel that their company values their contributions are likely to be satisfied with working conditions, have a sense of achievement, and identify with the organisation's goals and values. These findings are consistent with those of Indra et al. (2023) and Demircioglu (2023), who found that JS is positively related to AC.

The results also suggest that fairness is positively and significantly related to JS and AC. These results imply that the higher the fairness, the higher the JS and AC. This means that employees who feel that the employer distributes resources fairly are satisfied, show loyalty, and are psychologically attached to the employer. These findings mirror those of Lambert et al. (2020), who found that procedural fairness is associated with JS and AC.

The results suggest that POS influences the relationship between JS and AC. This can be explained by the fact that employees who feel that the employer values their contribution and well-being will be satisfied with the support they receive and feel comfortable in their work environment. This, in

turn, will lead them not to leave the company. These findings are consistent with those of Lambert et al. (2020) and Indra et al. (2023), who found that POS has an impact on JS and AC. The results also suggest that fairness influences the relationship between JS and AC. This means that employees who perceive a fair distribution of resources by the employer are likely to respond with positive attitudes and behaviour. This, in turn, leads to an emotional attachment to the employing organisation. These findings are consistent with the studies of Sadaf, Mukhtar, Nemati, Yousaf and Javed (2022) and Prasad and Jha (2023), who found that fairness influences JS and AC.

Implications for human resource practices

These findings have important implications for organisations seeking to improve employee AC and retention, as they suggest that a multifaceted approach that considers job satisfaction, fairness and perceived organisational support is critical to achieving these goals. The findings also suggest that HR should focus its attention on improving perceived organisational support, as this is a strong predictor of affective commitment. This can be achieved by treating employees fairly, increasing job satisfaction and fostering a supportive workplace culture. Companies must emphasise the importance of creating a positive and supportive work environment that can help increase employee commitment to the company. By prioritising these factors, HR leaders can improve employee retention and engagement, which can ultimately lead to better organisational performance. Finally, these findings have important implications for organisations seeking to improve employee commitment and retention, as they suggest that both job satisfaction and perceived organisational support are critical factors to consider in achieving these goals.

Limitations and future direction

There are a few limitations to this study. First, this study used convenience non-probability sampling and a cross-sectional design. There are doubts about the generalisability of the study and the representativeness of the subjects due to the sampling procedure (Hair et al., 2019). To prove cause and effect, a similar study with a much larger sample size and a longitudinal design is needed. The sample is also not representative of the entire South African banking sector. Employees' POS, fairness, JS and AC may also be influenced by other constructs, such as organisational culture and climate, as well as other leadership qualities. Therefore, future research could explore the relationship between the variables in this research could be explained using a qualitative method.

5. CONCLUSION

An employer organisation that supports its employees and treats them fairly would likely motivate employees to be satisfied with working conditions and relationships with colleagues, which would lead to psychological attachment to its organisation. The findings of this study contribute to the literature review on organisational support, equity, and work-related outcomes.

REFERENCES

- Akinyemi, B., George, B., & Ogundele, A. (2022). Relationship between job satisfaction, pay, affective commitment and turnover intention among registered nurses in Nigeria. *Global Journal of Health Science*, 14(2), 37-51.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organisation. *Journal of Occupational Psychology*, 63(1), 1-8.
- Allen, N. J., & Meyer, J. P. (1991). A three-component conceptualisation of organisational commitment. *Human Resource Management Review*, 1, 61-89.
- Aziri, B. 2011. Job satisfaction: A literature review. *Management Research & Practice* 3(4), 77-86.
- Bimantara, D. B., Rahmat, A., & Heri, H. (2022). Affective Commitment and Organisational Citizenship Behavior: Perceived Organisational Support as Mediation. *SAINS ORGANISASI*, 1(2), 112-126.
- Blau, P. (1964). *Power and exchange in social life*. NY: John Wiley & Sons.
- Burin, C., Roberts-Lombard, M. & Klopper, H.B. (2015). The perceived influence of the elements of internal marketing on the brand image of a staffing agency group. *South African Journal of Business Management*, 46(1) 71–81.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education* (8th ed.). London: Routledge.
<https://doi.org/10.4324/9781315456539>
- Colquitt, J. A., Greenberg, J., & Zapata-Phelan, C. P. (2005). What is organisational justice? A historical overview. *Handbook of organisational justice*, 1, 3-58.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Cropanzano, R. & Mitchell, M.S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal Of Management*, 31 (6) 874-900.
- Cropanzano, R., Anthony, E. L., Daniels, S. R. & Hall, A. (2017). Social Exchange Theory: A Critical Review with Theoretical Remedies. *Academy of Management Annals*, 11 (1) 1-38.
- Currie, P., & Dollery, B. (2006). Organisational commitment and perceived organisational support in the NSW police. *Policing-an International Journal of Police Strategies & Management*, 29, 741–756.
- Demircioglu, M. A. (2023). The Effects of Innovation Climate on Employee Job Satisfaction and Affective Commitment: Findings from Public Organizations. *Review of Public Personnel Administration*, 43(1), 130–158. <https://doi.org/10.1177/0734371X211043559>
- Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organisational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology*, 75(1), 51–59.

-
- Eisenberger, R., Huntington, R., Hutchinson, S. & Sowa, D. (1986). Perceived Organisational Support. *Journal of Applied Psychology*, 71(3) 500-507.
- Fowler, F. J. (2009). *Survey research methods (4th ed.)*. SAGE Publications, Inc., <https://doi.org/10.4135/9781452230184>
- Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis (8th ed.)*. Cengage Learning.
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63, 597–606. <https://doi.org/10.1086/222355>
- HR Glossary Academy to innovate HR (2023) *Organisational Commitment/ Affective Commitment*. Retrieved from <https://www.aihr.com/hr-glossary/affective-commitment/>.
- Indra, A., Asnora, F. H., Limbong, C. H., & Zufrie, Z. (2022). The Influence of Transformational Leadership, Job Satisfaction and Employee Organizational Trust on Work Performance. *Daengku: Journal of Humanities and Social Sciences Innovation*, 2(6), 879-885.
- Krishnan, J. & Mary, V. S. (2012). Perceived Organisational Support – an overview on its antecedents and consequences. *International Journal of Multidisciplinary Research*, 2 (4) 2-3.
- Kurtessis, J.N.; Eisenberger, R.; Ford, M.T.; Buardi, L.C.; Stewart, K.A.; Adis, CS Perceived organisational support: A meta-analytic evaluation of organisational support theory. *Journal of Management*, 43, 1854–1884.
- Lambert, E.G., Keena, L.D., Leone, M., May, D., & Haynes, S.H. (2020) The effects of distributive and procedural justice on job satisfaction and organisational commitment of correctional staff, *The Social Science Journal*, 57:4, 405-416, DOI: [10.1016/j.soscij.2019.02.002](https://doi.org/10.1016/j.soscij.2019.02.002)
- Linge, T. K., & Mutinda, J. (2015). Extrinsic Factors That Affect Employee Job Satisfaction in Faith Based Organizations. *Journal of Language, Technology & Entrepreneurship in Africa*, 6(1), 72-81.
- Makhathini, T. N., & Van Dyk, G. A. (2018). Organisational climate, job satisfaction, and leadership style influences on organisational commitment among South African soldiers. *Journal of Psychology in Africa*, 28(1), 21–25.
- Mercurio, Z. A. (2015). Affective commitment as a core essence of organisational commitment: An integrative literature review. *Human Resource Development Review*, 14(4), 389-414.
- Meredith, C., Moolenaar, N., Struyve, C., Vandecandelaere, M., Gielen, S., & Kyndt, E. (2023). The importance of a collaborative culture for teachers' job satisfaction and affective commitment. *European Journal of Psychology of Education*, 38(1), 43-62.
- Meyer, Stanley, Herscovitch & Topolnytsky 2002).
- Mitonga-Monga, J. (2020). Social exchange influences ethical leadership and employee commitment in a developing country setting. *Journal of Psychology in Africa*, 30(6), 485-491. <https://doi.org/10.1080/14330237.2020.1842587>
-

-
- Ngirande, H. (2021). Occupational stress, uncertainty, and organisational commitment in higher education: Job satisfaction as a moderator. *SA Journal of Human Resource Management*, 19, 1376.
- Niehoff, B. P., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal*, 36(3), 527–556. <https://doi.org/10.2307/256591>
- Ntseke, T., Mitonga-Monga, J., & Hoole, C. (2022). Transformational leadership influences work engagement and turnover intention in an engineering organisation. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, 20(0), a2013. <https://doi.org/10.4102/sajhrm.v20i0.2013>
- Odunlade, R.O. (2012). Managing employee compensation and benefits for job satisfaction in libraries and information centres in Nigeria. *Library Philosophy and Practice* (e-journal), 714.
- Pang, Q., Fang, M., Wang, L., Mi, K., & Su, M. (2023). Increasing couriers' job satisfaction through social-sustainability practices: perceived fairness and psychological-safety perspectives. *Behavioral Sciences*, 13(2), 125.
- Pathardikar, A. D., Mishra, P. K., & Sahu, S. (2023). Procedural justice influencing affective commitment: mediating role of organizational trust and job satisfaction. *Journal of Asia Business Studies*, 17(2), 371-384.
- Patrick, H. A., & Sonia, J. (2012). Job Satisfaction and Affective Commitment. *IUP Journal of Organizational Behavior*, 11(1), 23-36
- Prasad, D., & Jha, U. K. (2023). A Study on the Relationship Between Perceived Organisational Support and Organisational Commitment Among Managerial Staff in Private Banks in Cochin.
- Rhoades, L.; Eisenberger, R. (2002). Perceived organisational support: A review of the literature. *Journal of Applied Psychology*. 87, 698–714.
- Ruizalba, J.L., Bermúdez-González, G., Rodríguez-Molina, M.A. & Blanca, M.J. (2014). Internal market orientation: empirical research in the hotel sector. *International Journal of Hospitality Management*, 38, 11–19.
- Sadaf, M., Mukhtar, U., Nemati, A. R., Yousaf, R., & Javed, W. (2022). Impact of Organizational Value System, Perceived Organisational Support, and Job Satisfaction on Organizational Commitment. *Journal of Entrepreneurship, Management, and Innovation*, 4(1), 71-99.
- Sušanj, Z., Jakopec, A. (2012). Fairness Perceptions and Job Satisfaction as Mediators of the Relationship between Leadership Style and Organizational Commitment. *Psychological Topics* 21 (3) 509-526.
- Wang, Q., Wang, C. Reducing turnover intention: perceived organizational support for frontline employees. *Front. Bus. Res. China* 14, 6 (2020). <https://doi.org/10.1186/s11782-020-00074-6>
- WorldatWork. (2015). Total rewards model a framework for strategies to attract, motivate and retain employees. Retrieved from <https://www.worldatwork.org/waw/adimLink?id=28330>
-

Wyngaard, S. P. (2017). *The impact of leadership on job satisfaction at a specific bank in the Eastern Cape*. (Master of Business Administration), Rhodes University, Grahamstown.

Yildiz, S.M. & Kara, A. (2017). A unidimensional instrument for measuring internal marketing concept in the higher education sector: IM-11 scale. *Quality Assurance in Education*, 25(3) 343–361.

SSIRC 2023-224**UNCOVERING THE KEY CHALLENGES FACED BY WOMEN IN THE SOUTH AFRICAN POLICE: A POLICY-RELEVANT DIALOGUE****D. Khosa**

Tshwane University of Technology, South Africa

ABSTRACT

There are more women in the South African general population compared to men. However, job opportunities available to women are fewer compared to men. This study proffers understanding of the grand challenges of South African Policewomen across the country. It seeks to pursue relevant policy measures that can be employed to ease this problem. This qualitative study employed the Scoping Review research design, using a non-probability, purposive sampling method. The data collected over the 1990-2021 period has been analysed using inductive textual content analysis. Results indicate an absence of effective policy and regulation that can boost the status of Females in the Police services or Law Enforcement Agencies (LEAs). This is selectively attributed to the stereotypical outlook of the male population and resistance to contemporary changes. Moreover, the existence of numerous policies, including the implementation of laws, rules, and regulations, 'seem distant. The challenge is further fuelled by limited inspections and audits, which continues to deprive South African Police women of fair competitiveness with males. It is recommended that the implementation of available policies to address challenges faced by females in different societal sectors should be made an urgent priority. Female law enforcement Officers should be treated fairly, without partiality and be tolerated in the workplace. The complexity of the SAPS should not be gender-based.

KEYWORDS: Policewomen; Policy Measures; South African; Understanding Grand Challenges**1. INTRODUCTION**

There are more women than men in the general population of South Africa (SA) (The World Bank, 2022). In addition, females also experience a disproportionately lower social status compared to males of SA. Despite incorporating social and racial equity within SA's constitution, in line with that observed in democratic countries, issues related to social and racial equity continue in various forms and different fraternities (Story et al., 2020). Historically, during the apartheid and colonisation era, across Africa, conservation is predominantly related to specific races, particularly whites. Understanding the Grand Challenges of South African Policewomen: Can Relevant Policy Measures Ease This Burden? and individuals of the upper class, along with those of higher authority. Besides, Women were also excluded from the participation process. Gender is a 'discriminatory variable' in the context of conservation since Females' voices or opinions are suppressed at the regional level where real projects are built. For instance, in the rural region of KwaZulu-Natal (KZN), communities are quite organised and continue to follow a patriarchal outlook where male members are given the right to dominate females in the decision-making process, Females tend to agree with and depend on the male members during the meetings. Male

family members are the sole decision-makers in most African nations than been branded as ‘Housewives.’

There is no doubt that males dominate the labour force in South Africa across sectors, resulting in significant disparity in gender participation in the labour market. Evidence of this type of gender-related segregation and inequality is prominent in male-dominated industries like those of law enforcement, such as the South African Police Service (SAPS) and the South African National Defence Force (SANDF). The South African government has formulated different policies such as the Employment Equity Act [EEA] (No. 55 of 1998) and the Broad-Based Black Economic Empowerment Act [B-BBEE] (No. 53 of 2003), respectively ensure convenient access to jobs and other economic opportunities. Progress is being made in terms of female officers getting equal reach in the SAPS.

Thus, the primary concern of discrimination faced by Women in the SAPS is what the current study aims at addressing. In addition, the present research tends to shape the future of frame police and highlight effective strategies across the study region. Even though the population of SA has more Females compared to males, the participation of Females in the military or police workforce is the opposite, where males are given more support and opportunity to join various departments; thereby creating significant discrimination against Women, especially those who are willing to join the armed forces. There is limited agreement on the approach to comprehending hindrances to diversity, particularly the strategies of inclusion allowing women in SA’s Metropolitan Police Departments (MPDs).

The gender-based discrimination prevails within the leadership positions in the police service. Further, the absence of Females in higher positions is more glaring. Therefore, there is a need to undertake the current research to better understand the effectiveness of existing policy measures and systems adopted by the South African government.

Despite the higher number of females in the population of SA, the number of males in police and related services is more than that of Females, which depicts the lack of support and empowerment that the Women are facing across the region of SA. It is not that Women cannot succeed in the military services or related leadership positions; it is the confidence that the administrative officials have to develop in the abilities of Women and take steps accordingly. Hence, it is required to conduct the current study to shape the future composition of Women police in SA and to assess the paucity of strategies and measures in the region as well as concerned departments, thereby increasing the extent of Women’s empowerment. Empowering Females does not only implies making way for opportunities for Women, but also taking strategic steps to up-skill the capabilities or competencies of Females in every sector, including police departments, which can be helpful in the selected region where the participation and voice of Females are suppressed.

Therefore, this study has significant originality since, unlike the past studies, it has primarily focused on identifying the gap in the existing policy practices to make operational advancements for Women in the SAPS. Although existing studies have discussed the challenges that Women face in the workplace, particularly in acquiring leadership positions, the current study has

thoroughly researched the loopholes in policies that are hindering South African Women from increasing their participation in the police service.

2. METHODS AND MATERIALS

This qualitative study employed the scoping review research design, focusing on primary sources. This was accomplished by purposively identifying key concepts and knowledge gaps on this subject to set the agenda for research. Also, relevant evidence of existing practices and policy have been sourced to inform future research studies. Matthews and Ross (2010); and Maluleke (2016) agree that researchers can also ask questions to document in the same ways as one might ask questions from study participants. The consulted sources, such as ‘newspaper articles, report from the internet and journal articles, amongst others,’ were restricted to 1990-2021. Secondary sources from ‘Google Scholar’ were also reviewed. Sources consulted were demarcated to periods of 10 years or less, with some of the selected studies older than 5 years. Broad varieties of sources have been selected to acquire better insight into the status of Women in the South African labour market, particularly in the police service departments. These keywords, such as the ‘Women under-representation, Women empowerment, ‘challenges faced by Women in leadership positions, policies formulated by the government of SA, and population composition of South Africa’ have been considered.

The inductive Textual Content Analysis (TCA) was applied for data analysis. This data analysis method heavily depends upon very detailed data for efficient analysis. Its effectiveness rests on a limited body of data to work with and may be useful to explore different kinds of data to establish a data set, and it can limit material further by only taking a few texts or parts of texts [i.e. headlines] (Maluleke, 2020; Mokwena & Maluleke, 2020; Mokwena et al., 2020; and Silverman, 2014).

3. IDENTIFICATION OF STUDY THEMES, REVIEW OF LITERATURE AND DISCUSSIONS FEMALE LABOUR FORCE PARTICIPATION IN SA

It has been reported that although about 57.7 million individuals reside in SA, where more than 50 % of the total population (nearly 52%) comprises of Females as per the Population Register of the South African Department of Home Affairs, the later are inadequately represented in political, economic, and social spheres. Stereotypical outlook has significantly contributed to the continuing discrimination (Khosa, 2021). In the process of understanding the grand challenges confronting women in the South African Police service, it has been observed that women are under-represented. This has led to an increasing unemployment rate. This further indicates that the scope of job opportunities that are accessible to men is higher compared to females. In addition, males in SA have comparatively enjoyed higher levels of education compared to their Female counterparts. This is the core reason behind a relatively lower unemployment rate among males. Disparities in the labour market remains even if Females are better educated, which implies that they are less represented. Lack of Female representation is more evident in the formal sector; however, in the informal sector, Females are over-represented at about 36 % and 75 %, respectively (Matandare, 2018). This difference confirms that males of the Botswana region find it relatively more convenient to enter the labour market than their Females counterparts. Moreover, the traditional and dominant role of males in creating wealth in rural and urban families is one of the prime causes behind the comparatively high unemployment rates among Females. This is

extended by wrong traditional and cultural beliefs that the role of Women is caring for the family and childbearing (Diraditsile & Ontetse, 2017).

Subsequently, Women's employment fell comparatively more than men due to the "hard" COVID-19 lockdown and crisis. During the pre-crisis period in February 2020, nearly 46 % of Females and 59 % of males aged 18 years and above were unemployed. This suggests that the representation of Women in the labour force is less. Even in the context of unemployment, women are more vulnerable to the situation. Further, during the "hard lockdown" in April 2020, 54 % of males and 36 % of females disclosed being unemployed (Casale & Posel, 2020). This amounts to a decline of 22 % in the share of Females being employed in comparison to a decline of approximately 10 % in the share of males being employed between February and April. The employment gender gap has grown. During both hard lockdown and pre-crisis pandemic periods, Females are more likely to lose their job and less likely to gain a job compared to males overall. Females experience a bulk loss of jobs (Posel & Casale, 2019). Besides, the percentage of individuals working in February 2020 who faced a job loss in April 2020 was considerably more for Africans, those with no tertiary education and those in the category of lower earnings as far as earnings in February 2020 are concerned. On the contrary, a specific concern for the global trade union remains the under-representation of Female and precarious workers due to significant social trends such as feminisation and précarisation of work (Schmalz et al., 2018). Female participants or employees are made to feel stereotyped as "quota employees". Apart from gender stereotyping in the workplace, organisations in SA also practice racial stereotyping where black females are particularly stressed on the challenges of establishing a self-worth on the two "quota" stereotypes. This has been counter-productive to accepting their "true" capabilities, knowledge, and achievements. They consider Employment Equity (EE) as counter-productive to being accepted for their actual worth. As far as racial discrimination is concerned, black males are also victimised in the workplace in SA. The provision of EE reduced the self-worth of black females and created a barrier for white females in the context of job opportunities (Mayer et al., 2019). However, EE legislation and regulations have created quotas to enable Black males and females to be prioritised for job opportunities to ensure that the workplace reflects SA demographics. In this current context of differences in job availability, leaders must embark on a strategy toward ensuring diversity management in the workplace through EE legislation and regulations. Furthermore, females experience tokenism in the workplace due to their skin colour, even if they try their best job interviews or during the performance of their roles, which frustrate them.

This has further been validated in a study that specifies that females in SA have for several decades been experiencing discrimination within the workplace since positions in senior and top management are reserved for males. Even though Females are employed, they are offered job opportunities at lower positions in the organisations, especially administrative jobs, or secretaries. Despite the formulation of different policies and other measures implemented by the SA government, the progress toward employment parity in the workplace is taking place at a swain's pace, hence it is insufficient. There remains extreme inequality and widespread poverty among women in SA, although 20 years has passed since the adoption of the 'Beijing Declaration and

Platform for Action.’ Moreover, various pledges remain unfulfilled, and progress in gender equality in the workplace is still elusive, especially in SA (Sinden, 2017).

Although females have contributed to the nation’s social and economic well-being, they remain immensely undermined. Besides, their involvement in the workforce is imperceptible since most females are employed in the informal sectors. In the previous 20 years, the proportion of women who managed to enter the labour market has advanced from about 40 % to only 48 %. This advancement is remarkably negligible and very slow. Should the advancement of women persist at this (slow) pace, it might take approximately 50 years to attain the envisaged employment parity in African countries (Balasubramanian et al., 2018).

The Turbulent Nature and Extent of Challenges Facing South African Females

When women raise their voices during cultural or social gatherings, it is often viewed as ‘disrespectful and taboo’. This patriarchal philosophy remains to be witnessed in SA and continues to escalate. Hence, involvement in the ‘community game’ is not significant for women in SA because it poses does not yield direct advantages for them (Musavengane & Leonard, 2019).

If one examines the notion of female representation in terms of employment by reputable international firms, there is evidence of significant female contribution to SA’s employment and output. Thus, by carefully studying the contribution of women, there is a better chance of enhancing their impact on national outcomes and reducing gender inequality. Moreover, the removal of all sorts of discrimination against females could increase per capita global productivity by about 40 % (Bezuidenhout et al., 2019).

Furthermore, a smaller gender wage gap (GWG) increases the opportunity costs of females staying outside of the labour market This in turn boosts the participation of women in the workforce, thus concomitantly impacting the overall performance of the economy. Besides, trade tends to raise the GWG since it transfers resources to trading organisations that prefer a flexible workforce. This is because such organisations are concerned with clients across various time zones (Baudron et al.,2019).

Equally, females are generally regarded as less flexible compared to men because they are burdened with the responsibilities of domestic activities like child-rearing. It has even been observed that the total contribution of females in agricultural activities was relatively lower, i.e., between 7 % and 35 %. Furthermore, the intensity of labour experienced by females in farming operations is mainly reliant on tasks that executed by men (Baudron et al.,2019). Therefore, gender continues to be a core aspect of social relations in SA.

South African women tend to be tied up in executing household chores. This might have a adverse effect on their economic roles such as later-life pensions and mid-life migration. On the other hand, men are likely to get involved in out-migration. In this case, men have more scope to establish social connections with different migrants, hence they tend to be familiar with extended community members (Harling et al., 2020). In contrast, most women migrate to regions near their local residence and maintain familial bonds during their migration period.

Furthermore, gender norms imply that females are burdened with household management and tend to maintain inter-generational associations as they age, often simultaneously caring for their children and grandchildren. Therefore, these social forces can result in a gender-related model of social support, as observed in higher-income nations. The above narrations indicate that the female population across the region of South African experiences acute disparities and discrimination. This issue is prevalent in every other region around the world. Since the current study aims at assessing the future of female police officers in SA, it is necessary to understand the status of women in the labour market, particularly in the law enforcement sector, e.g. in the SAPS.

Female participation in police duties in SA

As far as female participation in the police service is concerned, different factors significantly contribute, such as the lack of human resources in the SA police departments and the increasing crime rate (Farrell et al., 2018). Consequently, institutes such as the ‘National South Africa Women Council (SAWC)’ and the ‘National Council for Child Welfare (NCCW)’ put forward that females need to be employed as representatives of the SAPS. These proposals brought out the initial and major transition in the policing fraternity. Despite the positive efforts to advance the status of females in the MPDs, the recommended improvements continued to be only a belief that Females are viewed as inferior and weak to their male counterparts (Khosa, 2021). Marginalisation is the most significant obstacle experienced by female police officers. Given the challenges of gender segregation confronting women in every sphere of their life, there are several measures and policies that have been implemented by various governments to ensure the inclusion of females, irrespective of their age, colour, religion, and other classifications.

Female participation in SA’s military duties

With certain exceptions, war is conducted mainly by males. In the past, less than 1% of fighters were women. Even to this day, women continue to occupy minor positions in the military, both in senior and combat positions. This despite attempts to promote and recruit women. Notably, although women constitute 25% of labour force in the military, only 15 % of them have been deployed in peacekeeping operations (Heinecken, 2022).

The situation presented above depicts that females continue to experience several social, institutional, and physical barriers that affect the extent of their inclusion in the labour force. Furthermore, resistance against the deployment of women soldiers, particularly in combat roles continues unabated. This resistance is based on of several arguments The most fundamental of these arguments is that females cannot fulfil the demands of physical activities required in the military. That mentioned, women are said to be inherently peaceful compared to men, hence they do not fit in the military or armed forces. It is further argued that female soldiers tend to affect cohesion among group members and the propensity of male soldiers to bond (Wilén & Heinecke, 2018).

Currently, arguments for the involvement of females in the military have increased, coinciding with the rise in peacekeeping operations. While initially trained and enrolled in the department of civil relief, the role of women gradually evolved. However, it was restricted to non-combat support

sections like personnel, logistics, medical service, welfare, intelligence, and finance (Rosman-Stollman, 2018).

Women were engaged in separate basic training from male members at the South African Women's Army College (SAWAC). Apart from being accustomed to the process of physical training, women are expected to match the standards men to complete basic military training. Tasks of female military trainees included typical 'feminine tasks' such as like how to apply make-up. This is stereotypical behaviour intended at conserving the feminine status of women (Rosman-Stollman, 2018). Even though women were promoted and remunerated at salary scales like those men and attended the same military forces course as the male counterpart, including the basic training, women were not allowed to engage in combat roles. Furthermore, weapon training was restricted to self-defence for female military personnel (Alchin et al., 2018).

A Comparative Analysis of Challenges Faced by Women across the Globe

Women are mainly responsible for the 'reproductive labour', which includes managing cooking, household chores, keeping home, cleaning, looking after family members, and domestic tools to repair goods, clothing, and others. These chores may either be unpaid or paid. "Unpaid" reproductive labour inhibits females take optimum advantage of the provision adopted by the International Labour Organisation (ILO), which is specific to frame a standard for measuring vulnerability in the workplace. This unequal facility of unpaid domestic chores is considered a significant obstruction to the advancement of females in the workplace if concerns related to the 'unpaid reproductive labour' are downgraded to the private domain of society (Mackett, 2021).

In SA, women's workforce participation, employment growth and employment probabilities are restricted by the burden of child-rearing and bearing imposed on them. It is further limited by the cultural expectations or outlook which accompany a specific marital status. The household responsibilities allocated to women leave hardly any time for them to enter the labour market. Due to the nature of work, such as being low-paid or unpaid, females remain in a worse socio-economical position than their male counterparts.

Furthermore, women are even under-represented in leadership positions in the workplace. Although females are finding paths and receiving acceptance in different organisations and occupations, some positions in remain inaccessible to. Among these organisational and occupational spaces, include leadership positions., the number of females in leadership positions within corporate institutions around the globe rose from about 19% in 2004 to about 25% in 2017 (Amakye et al., 2021). In this same period, the count of corporate entities without females in senior leadership posts also increased from 33% to about 34% (Amakye et al., 2021).

Furthermore, as per the 2018 Catalyst report, females constituted a mere 5.2% of leaders in United States of America (USA) organisations, while in Canada this figure was at 37.1%. Moreover, in Japan and India, the statistics were about 7% and 16%, respectively (Catalyst, 2022).

Moreover, in the European region, it was observed that females constitute about 10% of the board members and 1.8% of Chief Executive Officers (CEOs) in the 500 organisations listed by the Financial Times. In the context of Africa, the status of women, even if not poorer than the other

regions, it is similar. Hence, the advancement of females in corporates in the current era is undeniable. The low representation of women, particularly in leadership position, is factual and worrying.

Female representation in law enforcement across the globe

A vicious debate cycle is prevalent within the global community and labour market. Women are excluded from the ‘male-dominated’ sector (Li et al., 2019). Previously, women have not been allowed to exercise any raising voice in the police service departments; however, they are taking a firm hold in the law enforcement industry despite the objections raised by their male counterpart. The SA government formulated programmes and policies to promote the inclusion of females in every domain of life. However, these milestones have not presented the systematic barriers that females continue to experience, thereby increasing the extent of a hindrance for them in the context of assessing leadership positions.

The study conducted by Ariffinet al., (2020) highlights the natives of women empowerment in the Strategic Plan of 2013-17, undertaken by the “Ministry of Women, Family, and Community Development” of Malaysia. This has aimed at increasing the contribution of women within the socio-economic field. This initiative is framed per the “National Action Plan (NAP)” and “National Women’s Policy (NWP)” to promote women’s empowerment and development in Malaysia. In the context of powerful armed and military forces, India is in one of the topmost positions along with China, Russia, and the USA. However, gender equality and women’s participation in the rammed and the police service departments have remained a major challenge even in these regions. The Supreme Court of India has ruled that females can be appointed as army commanders, even though male army officers or soldiers may find it disturbing to take steps as per the direction of women officers (Dhar, 2019). Similarly, Jordan formulated their NAP for executing “United Nations (UN) Security Council Resolution 1325 (Women, Peace and Security)” for the period of 2018-21 and has further implemented a gender-based approach toward female participation in prohibiting and intervening in stability, security operations and conflicts” (Maffey & Smith, 2020). Although this is a vital step toward increasing women’s participation in the army and different national security entities, Jordan has faced major concerns about improving its ranking in the context of gender equality.

Government policy to improve female labour force participation in SA.

The SA government has also formulated various measures to empower women in different fields. Because of the changing characteristics surrounding the workforce, especially since it links with the emerging precariousness within the labour market, the ‘Decent Work Agenda’ has been developed to determine workplace vulnerability (Mackett, 2021). This enlisted the matter of gender equality as the cross-cutting objective of this Agenda and acknowledged the reproductive domestic labour of females and its contribution to females’ vulnerability within the labour market.

The South African government is trying to eliminate discrimination in the workplace and has adopted the EEA, 1998. Women must continuously prove their worth and abilities to join the police services. This is the crucial challenge experienced by women in the workplace for every sector, particularly in those sectors which need physical strength and endurance. Currently,

psychological-related tests are allowed under the EEA, 1998 to ensure that the applicants are selected based on their competencies and not gender (Khosa, 2021). In every industry, EEA, 1998 permits equal opportunity of employment and fair representation that the previous SA government did not apply during the *apartheid* era.

The policy of Black Economic Empowerment (BEE) has also aimed at eliminating discrimination across Africa, particularly based on skin colour. In SA, policies, institutions, and progressive laws formulated since 1966 tend to multiply women's representation, particularly black Africans, across the private sector (Matotoka & Odeku, 2018). Women's under-representation has continued to be the key issue in SA organisations, especially in the case of Black women. In this note, the introduction of B-BBEE in 2003 allows organisations to support economic transformation to enable a meaningful involvement of back communities. The emphasis of this policy is more on the criteria of race rather than the participation of gender. "The Women Empowerment and Gender Equality Bill (WEGE), 2013", has been implemented with the aim to make way for fair opportunities for females in getting job opportunities in SA. It further provides a condition where 50% of females are required to be employed in positions of decision-making (Hills, 2015). Under the leadership of 'The African National Congress Women's League (ANCWL)' and the Federation of South African Women (FEDSAW), females of distinct races raised their voices against the absence of sensitivity in the implemented laws and policies (Khosa, 2021). Women's struggle had a turning point on the 17th of April 1954 after the approval of the 'Women's Charter.'

As per the Charter, females residing in any part of SA, irrespective of their race, has the right to violate discriminatory practice and laws that do not allow them to enjoy their basic rights to fair opportunities of employment (Khosa, 2021). Further, the Labor Relations Act (LRA] (No. 66 of 1995) was also promulgated to provide fair employment opportunities. The guidelines of the LRA, 1995 prohibit employers from dismissing employees for unfair validation. Also, Section 186(1)(c)(i) of the LRA, 1995, prohibits employers from dismissing a willing employee from returning to their post after the period of maternity leave. Therefore, the LRA prohibit unfair dismissal (Sychenko et al., 2019).

Women Empowerment and Related Benefits

Empowering a person indicates supporting and motivating them to undertake or participate in a certain activity if they were previously restricted due to a lack of opportunities and adequate resources. The same context is relevant when women's empowerment is discussed. Females have a major contribution in decision-making and to the well-being of households (Sell & Minot, 2018). Thus, it is significant to assess initiatives intended to drive women's empowerment. However, the matter of empowerment stresses agency, achievement, and resources. Resources are the control over financial, human, intellectual and physical resources, whereas agency indicates possessing the freedom and capability to take individual life preferences. Combined resources and agency constitute 'functioning achievements or general achievements, which are associated with globally shared fundamental functioning; however, they also imply individual choices. Moreover, a few factors that tend to influence or determine empowerment include gender, nationality, marital status, age, economic activity, health, intra-family distribution and social role (Gupta et al., 2022). Other factors influencing the degree of empowerment include participation in economic activities.

Authority over resources or assets does not result in empowerment; however, it can only be a ‘catalyst for empowerment.’ While social, political and economic resources are critical in facilitating women's empowerment, they are often insufficient. Without a female's collective or individual capability to utilise and recognise resources as per their interests, the resources can never lead to women’s empowerment (O’Hara & Clement, 2018).

Further, the empowerment of women is regarded as a “process”, and inter-connected terms like autonomy, status and agency have been considered in the existing studies. Conventional treatment of female empowerment tends to differentiate instrumental (Altruistic) versus self-interest (selfish) notions of women’s autonomy. The measuring criteria of empowerment are fixed on self-compassion (sociopsychology) to explore the debate associated with health empowerment (Samanta, 2020). Females in society undergo several barriers and challenges since they belong to disadvantaged groups. Women are discriminated against to a degree, making way for inequalities to access societal resources, social services, wealth and property. This is in consequence of the dysfunctions within the structure of society (Unanam, 2020). This discrimination and segregation faced by females indicate that they have been hardly prioritised, further creating a barrier in the movement towards economic empowerment and self-actualisation. In the absence of these criteria, poverty increases, thus creating obstacles preventing most females from attaining their optimum potential. This eventually results in the violation of their fundamental rights (Unanam, 2020).

In conclusion, after reviewing the existing literature, it has been observed that although females are in the majority in SA, their representation or participation in the workforce, both in the private and public sectors, is not as much of their male counter parts (Harling et al., 2020; Musavengane & Leonard, 2019; and Story et al., 2020). Females must prove their abilities in every respect since they are viewed as physically weak. Even if they fought to secure a position in the labour market, they are not allowed to hold leadership positions in the workforce. This indicates they are kept at a distance from participating in the decision-making process.

The challenges are similar in both developing and developed nations.

As observed from preceding studies, women are extensively marginalised in SA police service departments despite the existence of various policy measures (Farrell et al., 2018; Khosa, 2021; and Li et al., 2019). This implies that their paucity of evidence to justify the effectiveness of policy measures aimed at reducing gender discrimination in the SA police departments. A significant gap exists in term of what the SA government should prioritise to improve the plight of women in the police service. In this context, the current study has sought to examine and address the gap, and advocate for the formulation of relevant policy measures to ensure the progress of females in police departments.

3. CONCLUSION AND RECOMMENDATIONS

The position of women in the workplace is yet to go a long way to attain equity with their male peers. Results of the present review paper confirm that equal representation of females in the policing domain continues to be delayed Despite the implementation of EE and B-BBEE legislation and policies.

Females in SA can participate in the workforce and secure their targeted job. In the context of male-dominated sectors like law enforcement and policing, the growth of women is stagnant since, in SA, they are hardly allowed to participate and join the troops of the police service. This slow growth is due to the stereotypical outlook of the entire society and the male members of the workforce. Even if Women are given leadership positions in organisations, most men show reluctance to follow the direction and advice of female leaders. This hinders the growth rate of women. Even if women contribute considerably to economic empowerment and in most instances, are more capable than their male counterparts, the withdrawal attitude of the male-dominated society pulls the female of the community backwards.

Furthermore, it is recommended that government should focus on implementing the policy measures that seeks to bolster women's empowerment effectively. In addition, government is also required to increase the level of knowledge to alleviate the stereotypical outlook and notion about females, males, society, race, or culture. Awareness creation and bolstering knowledge about the existing policy measures are also vital at the basic level. Nonetheless, this could women as victims in their quest to access fair opportunities based on the existing laws and regulations. In addition, there is a lack of inspection, which indicates the setting up of an inspection or monitoring agency for an improved audit and investigation of whether the target audience is deriving maximum benefits from existing policies and governmental regulations. This can further help to address the currently existing gap and bolster the implementation of strategies and measures adopted to support the women's empowerment in the SA police service.

REFERENCES

- Alchin, A., Gouws, A & Heinecken, L. (2018). Making a difference in peacekeeping operations: Voices of South African Women peacekeepers. *African Security Review*, 27(1), pp.1-19.
- Amakye, S., Chimhutu, V & Darkwah, E. (2021). Beyond the glass ceiling: an exploration of the experiences of female corporate organisational leaders in Ghana. *Journal of Human Behavior in the Social Environment*, pp.1-18.
- Ariffin, A.S., Baqutayan, S.M.S & Mahdzir, A.M. (2020). Enhancing Women entrepreneurship development framework: Policy and institution gap and challenges in the case of Malaysia. *Journal of Science, Technology and Innovation Policy*, 6(2), pp.22-33.
- Balasubramanian, S.A., Kuppusamy, T & Natarajan, T. (2018). Financial inclusion and land ownership status of Women. *International Journal of Development Issues*. *International Journal of Development Issues*, 18(1), pp. 51-69.
- Baudron, F., Misiko, M., Getnet, B., Nazare, R., Sariah, J & Kaumbutho, P. (2019). A farm-level assessment of labor and mechanization in Eastern and Southern Africa. *Agronomy for Sustainable Development*, 39(2), pp.1-13.

-
- Bezuidenhout, C., Van Rensburg, C.J., Mathee, M & Stolzenburg, V. (2019). Trading firms and the gender wage gap: evidence from South Africa. *Agenda*, 33(4), pp.79-90.
- Casale, D & Posel, D. (2020). Gender and the early effects of the COVID-19 crisis in the paid and unpaid economies in South Africa. NIDS-CRAM Policy Paper No. 18.
- Catalyst. (2022). Women CEOs of S&P 500. <https://www.catalyst.org/research/Women-ceos-of-the-sp500/>.
- Dhar, S. (2019). Gender and sustainable development goals. In *India's Social Sector and SDGs* (pp. 203-227). Routledge: India.
- Diraditsile, K & Ontetse, M.A. (2017). Lived Experiences and Consequences of Unemployment on Women: An Empirical study of Unemployed Young Women in Mahalapye, Botswana. *Journal of International Women's Studies*, 18(4), pp.131-143.
- Farrell, A.L., Monk-Turner, E., Danner, M.J & Scallon, C.J. (2018). There is no crying in police work: Exploring police shootings with feminist methods. *Gender Issues*, 35(3), pp.220-235.
- Gupta, S., Sahoo, P.K & Paltasingh, K.R. (2022). Does development deter crime against Women? Panel evidence from India. *Journal of Business and Socio-economic Development*. *Journal of Business and Socioeconomic Development*, 2(1), pp. 19-33.
- Harling, G., Morris, K.A., Manderson, L., Perkins, J.M & Berkman, L.F. (2020). Age and gender differences in social network composition and social support among older rural South Africans: findings from the HAALSI study. *The Journals of Gerontology: Series B*, 75(1), pp.148-159.
- Heineken, L. (2022). Women still considered a threat to military effectiveness and warrior spirit <https://mg.co.za/opinion/2022-03-23-Women-still-considered-a-threat-to-military-effectiveness-andwarrior-spirit/>.
- Hills, J. (2015). Addressing gender quotas in South Africa: Women empowerment and gender equality legislation. *Deakin Law Review*, 20(1), pp.153-184.
- Khosa, D. (2021). Gender and Police Leadership: An Analysis of Metropolitan Police Departments in South Africa. *International Journal of Criminology and Sociology*, 10, pp.1333-1341.
- Li, J.C., Cheung, J.C & Sun, I.Y. (2019). The impact of job and family factors on work stress and engagement among Hong Kong police officers. *Policing: An International Journal*, 42(11), pp.1-19.
- Mackett, O. (2021). Quality of work and unpaid reproductive labour in the South African labour market. *Journal of International Women's Studies*, 22(7), pp.47-68.
- Maffey, K.R & Smith, D.G. (2020). Women's participation in the Jordanian military and police: An exploration of perceptions and aspirations. *Armed Forces & Society*, 46(1), pp.46-67.
- Maluleke, W. (2020). The African scare of fall armyworm: Are South African farmers immune? *International Journal of Social Sciences and Humanity Studies*, 12(1), pp.192-206.
-

-
- Maluleke, W. (2016). The use of Deoxyribonucleic Acid in combating stock theft in South Africa. Unpublished Doctor Technologiae: Policing. Tshwane University of Technology: Soshanguve South.
- Matandare, M.A. (2018). Botswana unemployment rate trends by gender: Relative analysis with upper middle-income Southern African countries (2000-2016). *Dutch Journal of Finance and Management*, 2(2), pp.1-13.
- Matotoka, D & Odeku, K.O. (2018). Transformative interventions fostering mainstreaming of Black South African Women into managerial positions in the private sector. *European Review of Applied Sociology*, 11(16), pp.36-50.
- Matthews, B and Ross, L. (2010). *Research methods. A practical guide for the social sciences*. Pearson: Essex.
- Mayer, C.H., Oosthuizen, R.M & Tonelli, L. (2019). Subjective experiences of employment equity in South African organisations. *SA Journal of Human Resource Management*, 17(1), pp.1-12.
- Mokwena, R.J & Maluleke, W. (2020). South African rural communities and the land restitution process: The application of criminological and legal theories in identifying obstacles to rightful allocations of land. *Gender and Behaviour Journal*, 18(3), 16145-16156.
- Mokwena, R.J., Motsepe, L.L., Maluleke, W & Shandu, SN. (2020). A study of land restitution to rural communities in South Africa: An analysis of traditional leaders perceptives. *Gender and Behaviour Journal*, (18(3), pp.16132-16144.
- Musavengane, R & Leonard, L. (2019). When race and social equity matters in nature conservation in post-apartheid South Africa. *Conservation & Society*, 17(2), pp.135-146.
- O'Hara, C & Clement, F. (2018). Power as agency: A critical reflection on the measurement of Women's empowerment in the development sector. *World Development*, 106, pp.111-123.
- Posel, D & Casale, D. (2019). Gender and the economy in post-apartheid South Africa: Changes and challenges. *Agenda*, 33(4), pp.3-10.
- Rosman-Stollman, E. (2018). Military service as bargaining: The case of religious Women soldiers in Israel. *Politics, Religion & Ideology*, 19(2), pp.158-175.
- Samanta, T. (2020). Women's empowerment as self-compassion? Empirical observations from India. *Plos one*, 15(5), 1-18.
- Schmalz, S., Ludwig, C & Webster, E. (2018). The power resources approach: Developments and challenges. *Global Labour Journal*, 9(2), pp.113-134.
- Sell, M. and Minot, N. (2018). November. What factors explain Women's empowerment? decisionmaking among small-scale farmers in Uganda. In *Women's Studies International Forum*. (71), pp.46-55.
- Sinden, E. (2017). Exploring the gap between male and female employment in the South African workforce. *Mediterranean Journal of Social Sciences*, 8(6), pp.37-51.
- Silverman, D. (2014). *Interpreting qualitative data*. Sage: Thousand Oaks, California.
- Story, W.T., Tura, H., Rubin, J., Engidawork, B., Ahmed, A., Jundi, F., Iddosa, T & Abrha, T.H. (2020).
-

Social capital and disaster preparedness in Oromia, Ethiopia: An evaluation of the “Women Empowered” approach. *Social Science and Medicine*, 257(c), pp.1-11.

Sychenko, E., Laruccia, M., Cusciano, D., Chikireva, I., Wenpei, L & Smit, P., 2019. Dismissal protection in the BRICS countries in light of International Labour Organisation Convention No. 158.

BRICS Law Journal, 6(4), pp.34-66. The World Bank. (2022). Population, female (% of total population) - South Africa. The World Bank. <https://data.worldbank.org/indicator/sp.pop.totl.fe.zs?locations=za>.

Unanam, H.R. (2020). Impact of Women’s Economic Empowerment in Development: An Evaluation of Development Exchange Centre in Plateau State. *International Journal of Gender and Women’s Studies*, 8(1), pp.1-16.

Wilén, N & Heinecken, L. (2018). Regendering the South African army: Inclusion, reversal and displacement. *Gender, Work and Organisation*, 25(6), pp.670-686.

SSIRC 2023-231**THE EFFECTS OF ACCOUNTING INFORMATION SYSTEMS ON DATA QUALITY WITHIN MUNICIPALITIES IN SOUTH AFRICA****B. Ismaila**

Vaal university of Technology, South Africa

J. Beneke

Vaal university of Technology, South Africa

ABSTRACT

The influence of accounting information systems (AIS) on data quality in municipalities is discussed in this review, with a focus on South Africa. AIS, which are frequently linked to accounting firms and IT, are essential for both public and commercial organisations, including municipalities. The aim of this paper is to evaluate how AIS affect data quality in municipalities, to ensure better financial management. The research, which was conducted as a narrative review, examined pertinent articles in several databases, including Scopus, Google Scholar, and ResearchGate. Despite the South African government's recognition of the importance of AIS for quality data, and its efforts to deploy these systems at all levels of government, including municipalities, progress has been slow; as shown by reports from the Auditor General and other agencies. Other nations also deal with problems comparable to those in South Africa. The review also identified other organisational characteristics (organisational structure, culture and human resources); internal controls; audits; AIS quality; and good governance, that go beyond AIS and affect financial data quality. Although there have been service delivery protests over this issue, there is little literature, especially on AIS and data quality, on South African municipalities. To raise awareness and promote municipal financial reporting standards, the review advises conducting more in-depth empirical research across municipalities. It is intended that, by bringing these issues to light, municipalities will act proactively to resolve data quality problems and improve their financial management. Additionally, the incorporation of AIS in municipalities ought to be mandated, enforcing the development of skills and the creation of jobs by assigning qualified accountants to assume the duties.

KEYWORDS: accounting information systems; information systems; information quality; financial reporting; financial information; municipalities; South Africa.

1. BACKGROUND**Context and justification of this research study**

This review is written to clarify the extent to which AIS could influence data quality in municipalities in South Africa (SA). AIS are often associated with accounting or auditing firms, or IT businesses. However, AIS are needed in all types of organisations, whether in the public or private sector. Also, researchers in this field focus more on private sector companies. This study seeks to determine whether, and how, AIS influence data quality in municipalities (local governments). Municipalities across South Africa are often accused of mismanagement and the

misuse of public funds. The government sector should be serious about financial reporting at all levels, since this is essential for transparency and openness about the use of state resources. Muliyani et al. (2021) highlighted that one of the areas needing attention within the state agencies is data collection, which includes converting handwritten reports of all accounting dealings into an electronic form. This will not only help eliminate, or minimise, errors but will also improve the data quality for smoother operation of the AIS. Similarly, government agencies should increase investment in their AIS as this makes the organisational philosophy more flexible and resilient (Alnajjar, 2017). Considering that the extant literature shows a constructive, important connection between AIS use by companies, and their performance, it is important that local governments implement AIS to improve the quality of information input, and therefore useful output, that enables good decision-making. This study seeks to examine the effects of AIS implementation and use on data quality in municipalities or local governments, as they may be known in different parts of the world.

One important aspect to be considered is which factors enable an AIS to produce quality data. Apart from the data that is produced, the other main components of an information system that are considered include the organisation itself, the people, and the systems. These features contribute enormously to enabling an AIS to produce quality data output. Organisational features have been found to be critical for data quality and performance of AIS. Factors such as organisational culture have been found to positively impact the quality of an accounting information system (Yanti & Pratiwi, 2022). On the other hand, these authors' study revealed that the organisational structure does not impact the accounting information system quality. This result may be unexpected, since one would think that decentralised structures with greater autonomy would be more likely to render an AIS effective, because of less bureaucracy to negotiate implement an AIS. Furthermore, their findings showed that user ability (education, training and skills) have a significantly positive impact on accounting information system quality (Yanti & Pratiwi, 2022).

Likewise, other studies have also supported the effect of organisational factors on AIS. For instance, Indeje and Zheng (2010) posited that, for AIS to be an efficient, precise and appropriate operation, organisations need to trust their business operations and organisational culture. In support of this, Huynh (2021) found that organisational culture has a significant effect on AIS and the performance of Vietnamese organisations. Indeed, people and systems can hardly be separated in an information system since people operate and control the systems. Xu et al. (2003) argued that, at times "having good systems is not good enough", as all systems need to be run by people, and people sometimes make mistakes, particularly when a company is trying to adopt a new system. This suggests that both humans and systems are necessary for an effective AIS which produces quality data. In line with the above, Al Natour (2021) asserted that speed and flexibility of the system have the most impact on accounting submissions, yet he cautioned that accountants (humans) should take measures to safeguard the company's information from abuse, loss or hacking. This implies that the system may be excellent, yet the users' capabilities and knowledge have a crucial and positive impact on the quality of the accounting information system (Yanti & Pratiwi, 2022). Furthermore, AIS and data quality are found to be affected by both top and middle management. However, while the studies by Xu (2003), Hosain (2019) and Muliyani et al. (2021) supported this view, Saleh (2013), in his study, revealed that only middle management

commitment impacts account information system data quality. This author believed that the reason could be since middle management is closer to the operators of the AIS; therefore, their support is more meaningful.

Furthermore, control systems, too, have been found to impact the quality of AIS data. For instance, Neogy (2014) found that the presence of an efficient internal audit, through the protection of resources; the reliability and accuracy of accounting data; and stopping fraud, improves the efficiency of AIS. Looking at this from the data point of view, Bai et al. (2012) advocated prime control approaches at task level because they believed mistakes can be made in various tasks during the data flow, in errors, omissions, delays, software malfunction or deceit. The authors stressed that these control processes find and correct mistakes in the transactional information at viable control locations during the procedure; and they eventually reduce the risk linked to mistakes in the information flow (Bai et al. 2012).

This study has been conducted within the context and framework of clarifying the extent to which AIS could influence data quality within municipalities in South Africa. This includes exploring whether these municipalities use AIS or other variations of information systems (IS) to produce their financial reports, and how that could affect the quality of the data that is produced; as well as the AIS components and their interaction with one another.

Search strategy

A narrative review process has been adopted to find and analyse research in the literature on the development, trends, and possible impact of AIS adoption on financial information quality. The search strategy involved identifying the relevant databases, which included Scopus, Google Scholar and ResearchGate. These three search engines were deemed sufficient, since most articles are found in many of them; and Google scholar, especially, has a flexible connection, yet with a broad scoping searching ability, across a huge number of scholarly papers published online. The reference lists of included articles were further screened for additional relevant results. The review also included grey literature (reports; policy literature; blog posts; white and conference papers; and dissertations/theses) utilising Advanced Google Scholar targeted searching. Because of its exploratory nature, the review did not adopt a more inclusive approach to article selection, such as is used for a systematic review.

The search strategy combined keywords such as: ‘AIS in municipalities’; ‘AIS and data quality in municipalities’; ‘AIS information quality in municipalities’; and ‘financial reporting in municipalities’. In the search, the word ‘municipalities’ was also substituted with ‘local governments’ or ‘local authorities’ as they may be known in different countries. The country ‘South Africa’ as the primary target of the review, was used with all keywords at first, but was then omitted to include other countries to gain more insight into the matter in the global context, especially as there is little research on the topic in SA. In addition, search results that included ‘audit reports’ or ‘internal controls’ in SA municipalities or local governments in their titles were retained for the review as they often discussed financial reporting. The search period was set for the past 20 years, starting from 2003. The reason for this period is that the early 2000s were the years that information technology (IT) started to spread slowly to all parts of the world.

It is worth noting that, even though ‘municipalities’ was used interchangeably with ‘local governments’ or ‘local authorities’, there were very few articles that came out of the search for South Africa, and they even hardly directly examined the AIS or financial reporting in municipalities or local government in South Africa, although some mentioned it. This seems to indicate how this topic in South Africa has not been given enough research attention. In corroboration of an earlier view that research on this topic tends to focus more on the private sector, there is not much research on the topic from the wider African continent, or even beyond. This search result reinforced the need for this review, and many more, to be conducted, as well as empirical studies. In total, 36 studies were considered for the review.

Exclusion criteria

All studies that did not include in their title the expressions ‘accounting or financial reporting in municipalities, local authorities or local governments’; ‘AIS (AIS) in municipalities, local authorities or local governments’; ‘financial information systems (FIS) in municipalities, local authorities or local governments’; or ‘information systems in municipalities, local authorities or local governments’, were not considered as they were not relevant to this particular review, which had a very focused scope, apart from the exceptions made in the search criteria above.

2. REVIEW

Key trends on AIS in municipalities or local authorities

The research on AIS has gained momentum in the past two decades. The release of financial reports by a municipality may be seen as a good sign of accountability to the public; better still, if the reports produce good quality data. In Indonesia, the implementation of AIS enabled the provision of valuable municipal accounting statements for users, and to evaluate responsibility and take decisions for financial, collective and administrative purposes (Kurniati & Alias, (2021). According to Giacomini (2020), the key task of AIS in municipalities is providing data based on the handling of information resulting from financial trades. Assefa et al. (2020) posited that, when AIS is not perceived to be in line with the demand for data, accounting information customers may not get relevant, or good, data. In support of this view, Mulyani et al. (2021a) noted that, to provide top-level transparency and responsibility, an AIS must be able to give credible and in-time data, which is key for reform in the government sector. As recommended by the adage ‘garbage in garbage out’, if the data that is recorded in the system is exposed to a great risk of inaccuracies, then the produced information will be questionable and not capable of providing useful information to make decisions (Mulyani et al., 2021a). Furthermore, in some developing countries (e.g., Indonesia), although some elements are agreed upon and largely seen as important in defining data quality, there may be important deviations in real practice (Mulyani et al., 2021b). Thus, this study seeks to explore the influence of AIS on data quality in satisfying accountability in municipalities or local authorities.

Clearly, errors in produced data could lead to negative consequences for any company, public or private. To illustrate this, Xu et al. (2003) claimed that a small data entry mistake, such as the unit of product or service, would trigger losses to a company and affect its standing. In addition, poor data quality may also lead to possible loss of money, legal fines and inefficient operations (Bai et al., 2012). Imagine for instance, what damage missing payments or similar mistakes on a financial

statement can do to a municipality or local government's financial standing. As Al Natour (2021) points out, wrong or inappropriate data can hinder decision-making or allow the company's shareholders to make wrong evaluations of their business. In South Africa, even though many studies have researched AIS and related topics, most of them have not, so far, focused particularly on municipalities or local governments, or even on government in general, according to the search results of this review. This does not mean that private sector AIS standards are superior to those of municipalities, since the objective of this review was not to compare the two; therefore, no comments can be made in that regard.

To summarise, it may be argued that these findings support the view that an effective implementation of accounting information system will provide quality data – specifically, financial data that is relevant, accurate, in time and complete, which may be used to make sound decisions in local governments (Fitriati et al., 2020). The next section reviews what has been researched in South Africa on this subject.

AIS and data quality within municipalities in South Africa

Mazibuko (2020) painted the picture of South African municipalities in very worrying words. The author stated that, across the country, almost all local governments have limits with respect to financial control, responsibility, and funding independence; as well as the culture of not paying for services and facilities, unsettled financial obligations, and lack of authority (Mazibuko, 2020). The principal task of AIS in municipalities is to provide data based on the handling of information resulting from business dealings (Giacomini, 2020). Additionally, Rahman and Fachri (2016) postulated that government accounting reports should deliver useful data to the public in evaluating accountability and taking decisions on financial, collective and governmental decisions. Echoing that, Setiyawati and Doktoralina (2019) affirmed that using information technology should facilitate the accounting reporting process, resulting in quality accounting statements.

Weighing in on the importance of data quality, Missier et al. (2003) opined that implementing standards for good quality information is a tactical investment that is intended to protect the value of the resources of an organisation. The question is, what would these decisions be if the quality of the data that is produced is not up to standard, or even erroneous? Rahman and Fachri (2016) argued that an accounting information system in which the resulting accounting statements are based on reliable input, processes, and output, is one factor in the generation good quality financial reports. Consequently, one contributing factor in producing high quality financial statements is implementing an accounting information system.

For the financial year 2018-2019, the South African Auditor General's (AGSA) report indicated that just 20 out of 257 municipalities (i.e. 7%) achieved qualified financial statements and performance reports (Makwetu, 2019). Alarmingly, that was a sharp decline compared to a few years previously, when the report showed that 18% of the municipalities achieved clean financial reports (Khanyile, 2016). All of this was happening despite the efforts of the Municipal Finance Management Act (MFMA) to resolve the past challenges in budgeting, accounting, reporting, and providing the means for a better and more effective use of state funds (Khanyile, 2016). Those

reports clearly reveal the importance of data quality, a key factor for producing good financial reports within the SA municipalities.

According to a National Treasury report, for too long, the SA government had been very worried about the unacceptable performance in financial management, due to the absence of reliable, in-time data for decision-making, at all levels of government, including the municipalities (Kwetana, 2019). In Khanyile's study of a Kwazulu-Natal municipality, the majority (about 58%) of respondents indicated that their financial system was well integrated to produce sound financial statements in the municipality. However, the study did not disclose whether that municipality was among the few that achieved qualified financial statements – confirming the quality of data produced by the municipality's system – according to the auditor general's report for any year. Nonetheless, this result indicates the municipality's appreciation of using an accounting information system to produce quality data.

Poor financial accountability by municipalities in the North-West province indicate the absence of financial accounting or reporting systems as one of the main causes (Enwereji & Uwizeyimana, 2019). These authors' findings pointed to the lack of internal control measures as one of the other causes of poor financial accountability in those municipalities. Many other studies (Atharrizka & Nurjanah, 2021; Neogy, 2014; Oktyawati & Fajri, 2019; Sumaryati et al., 2020) contend that controls – internal or external – play an important role in the financial reporting of local governments and other types of institutions; thus in the quality of data that they produce. The influence of controls on AIS and data quality will be discussed in more detail in a separate section of the review.

The government of South Africa acknowledged the importance of accounting/financial information systems in generating data quality. That is why it introduced initiatives for these systems to be implemented at all government levels, including in local municipalities. Such initiatives include the introduction by National Treasury of legislation with regard to the charting of accounts, for all municipalities to adhere to, and to incorporate the integrated financial management information systems (IFMIS), established in the municipal regulations on a standard chart of accounts (mSCOA) (Gcora & Chigona, 2019). The IFMIS is also one of these government initiatives which, for municipalities, represents the accounting transactions that support management in some duties, including the planning of accounting reports and financial statements within local governments in the country (Ngoepe & Ngulube, 2016).

Notwithstanding these government initiatives, it may be argued whether the municipalities have embraced the various programmes or have adopted their own systems. The reports of the AGSA that were referred to earlier speak to the contrary. In corroboration, Gcora and Chigona (2019) asserted that, even with the introduction of IFMIS in municipalities, just a couple of implementations have been widely adopted by some local governments. One of the main reasons for the failure, or ineffective implementation, of IFMIS in municipalities was reported to be the lack of end users' involvement in the implementation of the system (Gcora & Chigona, 2019). Furthermore, the findings of these authors indicated that respondents from diverse local governments voiced frustration with the user responsiveness of the system and the absence of some specific functions in IFMIS, raising with this the issue of effective staff training on the use of the

systems. Considering the poor financial reporting of most local governments, with all the resultant service delivery issues, the question that comes to mind is: ‘Why has the topic of AIS and data quality in local governments did not attract more research in South Africa?’ Perhaps, before attempting to draw any conclusion, one should see how the topic fares in other countries across the globe.

AIS and data quality within municipalities in the rest of the world

In the new knowledge economy that has been growing over the past 20 years, it is likely that the use of, and investment in, information technology will continue, as will the adoption of these systems by various organisations, including government institutions across the world. In the financial sector, various AIS have been adopted and implemented by different organisations, in both public and private spheres. This literature search and review has shown that research on AIS and data quality in government institutions, and local governments particularly, is lagging far behind. What has the research on this subject found?

In Indonesia for instance, the use of AIS has increased the speed and effectiveness of organisational decision making and recording exercises. For example, a study by Atiningsih (2020) revealed that using information technology has had a positive impact on the quality of financial reports in local governments in Indonesia. Similarly, Sari (2018) found that the successful implementation of an accounting information system influences the quality of financial reports, as in the data quality of regencies in northern Sumatra province. Bizarrely, her study also revealed that there was a lack of implementation of AIS by the regencies in that province, despite the awareness of their importance, leading to unqualified financial statements for the years under study (Sari, 2018).

This recalls the South African municipalities’ situation mentioned earlier, where the AGSA reported that the majority fail to produce acceptable financial reports. By contrast, Sumaryati et al. (2020) reported that the use of AIS had no impact on the data quality of financial statements of local governments in Indonesia. Likewise, Atharrizka and Nurjanah (2021) agreed that an accounting information system (AIS) has no major influence on the quality of accounting statements. On the other hand, Sumaryati et al. (2020) posited that human resource (HR) competency has an impact on the quality of financial statements. In disagreement with that finding, Muda et al.’s (2017) study showed that human resource competency does not have a positive, or major, impact on the information quality of local government financial statements of Labuhanbatu regency. Their results showed that the use of information technology does not have a confirmatory and key impact on the information quality of local government financial statements (Muda et al.).

A study by Chalu and Kessy (2015) on AIS and governance issues in Tanzania’s local governments raised the issue of lack of inclusive information systems, despite acknowledging the importance of implementing them. Nonetheless, this argument does not refute the importance of using AIS by local governments or their importance in providing quality financial reports. This may just suggest that the systems need to be implemented within local governments where they are needed, and for the right people to use. Chalu and Kessy (2015), in their empirical inquiry, revealed interesting insights on aspects that impact AIS performance in Tanzania’s local governments. These factors include:

-
- Participants proposed the provision of elementary training to administrators in how to read and interpret financial accounts.
 - Respondents indicated that, for successful computerization of AIS, municipalities need to own the system; to boost management's pledge and ease outside dependence on technical support.
 - Participants recommended that internal and external auditors be trained in how to operate the system being put in place.
 - Respondents pleaded for the acquisition of software that reflected municipalities' settings.
 - Participants wanted the federal government to add to the resources given to local governments for them to secure suitable facilities, such as computers.
 - Respondents also suggested that local governments increase collaboration among all divisions, support the internal audit department, and reinforce capacity at district level.

Looking at these factors, either individually or collectively, and considering the South African municipalities' situation regarding quality financial statements, or the lack thereof, all these factors need to be looked at carefully, and considered by the local authorities in their effort to improve their own systems.

When concluding their study, Rahman and Fachri (2016) underlined that, if used properly, the account information system will lead to improved quality in accounting reports. They also posited that one of the aspects of an accounting system, if it is to have a positive impact on the quality of financial reports, is that human resources be involved in the use of the system. In study of 22 work units in a local government jurisdiction in Tangerang district, Setiyawati and Doktoralina (2019), found that the use of information technology positively affected the accounting data quality. During the analysis, all five dimensions of data quality of an accounting information system (timeliness; understandability; reliability; relevance and comparability) were tested, and positively correlated. Another study in the district of Tangerang was conducted by Yassin and Harnovinsah (2021) on factors affecting the quality of village financial reports, involving 123 village heads or secretaries. The findings demonstrated that the application of village government bookkeeping standards and the practice of information technology had a major impact on the quality of village financial reports (Yassin & Harnovinsah, 2021).

Corroborating these findings, a case study of a local government by Kurniati and Alias (2021) revealed that the implementation of AIS enabled the provision of valuable municipal accounting statements for users in evaluating responsibility and taking decisions for financial, collective and administrative purposes. In line with these findings, Bamwira's (2011) study of Kampala City Council demonstrated that AIS assisted in rendering accounting reports that were simple, flexible and easy to use, although it was less successful, compared to the contribution of standardised accounting reports, in effectively controlling and minimising mistakes in financial statements. For instance, in the same setting, the study revealed that AIS contributed 11% less to the quality of financial reporting in KCC than standardised financial reporting.

There are many other factors that may contribute to the data quality in addition to – or apart from – the use of AIS that have been identified by this review. The next subsections look at those features.

Internal controls and audit's roles in financial reporting of local governments

Internal controls have been mentioned in many studies in this review as one of the factors playing an important role in the use of AIS, and financial reporting of local governments. In a survey involving 227 local governments across Ghana, Oduro et al. (2022) reported that, when an internal control system is enhanced and operated efficiently, the AIS will be simple, and information will be protected. Likewise, Rahmatika and Afiah (2014b) reported that the better the application of internal controls in local government, the higher the quality of accounting reporting. Furthermore, Dharma et al.'s (2023) study findings concurred that internal control efficacy positively impacted the quality of accounting data, by 41%, in the surveyed local municipalities.

Other studies (Atharrizka & Nurjanah, 2021; Neogy, 2014; Oktyawati & Fajri, 2019; Sumaryati et al., 2020) have agreed that internal controls play an important role in the financial reporting of local governments, and thus in the quality of data that they produce. The audit, too, is reported by some studies, to have an impact on financial reporting quality. In that regard, Khanyile (2016) posited that it is essential that the internal auditing processes assist municipalities by ensuring that there is observance of the municipality's measures and guidelines, and truthful maintenance of financial statements. Supporting this, Rahmatika and Afiah (2014a) indicated that the efficacy of an internal audit's role has an important influence on the quality of fiscal reporting.

The influence of organisational factors on the quality of AIS

Many aspects of the organisation have been identified in different studies in this review as factors that impact the quality of AIS. These include human resource competence (personnel knowledge, skills, ability); organisational structure and culture; AIS quality; and good governance.

- Human resource competence is expected to play an important role in many aspects of an organisation, including in the production of quality financial reports. The education level, skills and training of the staff all have an impact on the performance of an organisation. In this regard, Sumaryati et al. (2020) stated that Agency Theory supports the connection between the quality of HR and the quality of municipalities' financial statements. In line with this, Oktyawati and Fajri (2019) concluded that HR aptitude has a major impact on the reliability and timeliness of accounting reports in the municipalities. Supporting these results, Budiman and Daito (2022) opined that human resource proficiency has an positive and substantial impact on accounting data systems.
- Organizational culture has been mentioned earlier in this review as having a positive impact on an AIS in organisations (Huynh, 2021; Indeje & Zheng, 2010; Yanti & Pratiwi, 2022). Budiman and Daito (2022) agree that organisational culture has a favourable and extensive impact on AIS.
- Researchers are not in agreement about the influence of organisational structure on AIS or data quality, as seen in conflicting reports from different studies, as indicated earlier in the

review. For instance, Yanti and Pratiwi's (2022) study revealed that the organisational structure does not impact the accounting information system quality. On the other hand, Setiyawati and Doktoralina (2019) argued that a firm's governance structure may favourably influence the accounting data quality.

- Good governance is also one of the aspects that was mentioned numerous times during this review, as affecting the data quality at local government level. For instance, in their study, Setiyawati and Doktoralina (2019) demonstrated that the implementation of good governance principles positively affects the quality of accounting information. Aligning with that, Chalu and Kessey (2015) made an argument that AIS should be adopted to make organisations such as municipalities environment-friendly, involving the provision of data that is aligned with legal requirements, and efficiently utilising resources to improve the decision-making process. Furthermore, AIS can help achieve good governance if it is appropriately instituted in the municipalities. The information produced by the AIS is not only limited to economic information, since it can also include other information, such as the quality of the services produced. In other words, information produced by AIS can include both financial and non-financial information (Chalu & Kessy, 2015), which will all contribute to better financial performance and standing in the municipalities. Similarly, Dharma et al. (2023) agreed that good operational governance improves accounting information quality. To sum it all up, Mazibuko (2020) noted that good governance is a tool that can safeguard municipalities from financial distress and harmful fiscal exposures.
- Accounting information system quality should be of paramount importance, in addition to all other factors, if municipalities are to improve their financial reporting. Governmental agencies should increase their investment in reliable AIS, as this makes the organisational philosophy more flexible and resilient (Alnajjar, 2017). Considering that the extant literature has shown a constructive and important connection between AIS in use by companies and their financial performance, it is important that local governments improve their AIS for better data quality input, in order to have useful output that enables good decision-making. Al Natour (2021) asserted that the speed and flexibility of the system have the most impact on accounting submissions. Other authors have argued that the ease-of-use and efficiency of the system are all related to the system quality (Chang et al., 2012).

3. DISCUSSION

The main observation coming from this review is the relative absence of literature on AIS and data quality in municipalities or local governments in South Africa. This is a surprising, considering the magnitude of the service delivery problems they are facing, which have been making news headlines for the longest time. From the findings of this review, one may argue that the effective implementation of AIS in local governments or municipalities would have an impact on service delivery. For instance, having timely, accurate, reliable and understandable data will allow decision makers in these municipalities to adjust their budgets according to priorities so that proper service delivery is rendered. One important fact that emerged from this review is that several other factors have been found to contribute to financial reporting in local governments – in South Africa and elsewhere – apart from AIS. Yet this review revealed that not much attention has been given to the

issues in other countries, either. It may be argued, then, that this is a global phenomenon that needs to be addressed. For instance, a study in Albania by Demiraj et al. (2021) showed that AIS are not widely used, even in the private sector, let alone in the government sector or at municipal level.

Giacomini (2020) surveyed 726 mayors in Italy on the use of accounting information. The study surprisingly did not involve questions about the source of accounting information, which is quite important. Nonetheless, this study revealed three levels or clusters in the use of accounting data by the surveyed mayors. The first cluster was characterised by participants with ‘high and constant’ use of accounting information. These participants considered the accounting information to be useful in decision making and supporting decisions made by the municipal board (Giacomini, 2020). The second cluster, into which most of the respondents (356) could be classified, was characterised by ‘low and decreasing’ use of accounting information by officials who just used the accounting data for decision-making or explaining choices made by the city council (Giacomini, 2020). The third cluster, smaller in number (142), mainly used accounting information to promote the municipal board’s position and was less concerned with evaluating the data to support or explain the choices made by the council (Giacomini, 2020). Clusters two and three, together, account for 66% of all participants, and they are less concerned with the universally accepted, intended use of accounting information, which is to inform decision-making. The question that may arise here is why would these officials be concerned with the quality of data that is produced, or with the system that was used to produce it, anyway? The literature reflects local governments’ struggle to produce sound and qualified financial statements, globally, with a dark picture of service delivery. Is this survey result, then, not a universal representation of municipalities across the globe?

Overall, even though a few studies have reported the opposite, the large majority revealed that the use of accounting information systems has a positive impact on the quality of financial data. This review inspired the building of the following conceptual framework (Figure 1) that researchers – including the authors of this review – may use in empirical studies at local government level, or even in other government institutions, to assess the findings that have been discussed in this review.

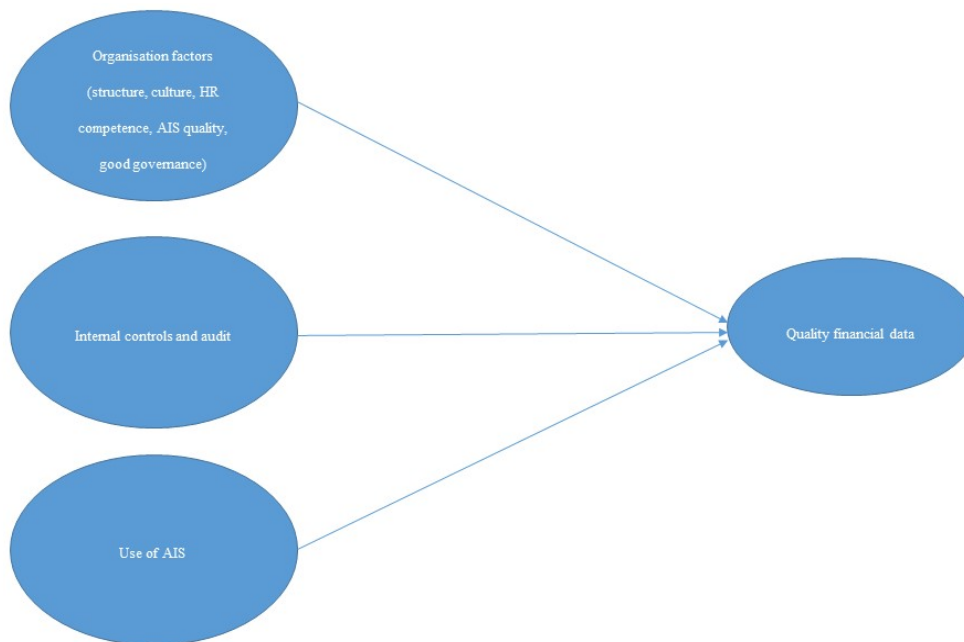


Figure 9. Conceptual framework for potential empirical studies (authors' conception)

4. CONCLUSION

This review was undertaken in the context of clarifying the extent to which AIS could influence data quality within municipalities in South Africa. The study sought to determine if, and how, an AIS influences data quality in municipalities. The results indicated that, despite the South African government's acknowledgement of the importance of accounting/financial information systems in data quality, and the introduction of initiatives for these systems to be implemented at all government levels, including in local municipalities, different reports show that there has not been enough progress made by municipalities thus far. Similarly, the review revealed that not much attention has been given to the issue in other countries, either. The review further discovered that other factors, such as internal controls and audits, and organisational factors (structure; culture; HR; AIS quality; and good governance), also contribute to quality financial data. Surprisingly, the results of the review also indicated that there is limited literature on AIS and data quality in municipalities in South Africa, despite the regular service delivery protests in various municipalities. Therefore, it is recommended that intensive empirical research be undertaken – the conceptual model suggested above may be used – across municipalities to raise awareness of their financial reporting, and to implement improvements. Additionally, it should become mandatory to integrate AIS in all municipalities, requiring skills development and generating jobs, while appointing qualified accountants to take over the responsibilities.

REFERENCES

- Al Natour, J. R. A. Q. (2021). The impact of information technology on the quality of accounting information (SFAC NO 8, 2010). *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(13), 885–903.

-
- Alnajjar, M. I. M. (2017). Impact of accounting information system on organizational performance: A study of SMEs in the UAE. *Global Review of Accounting and Finance*, 8(2), 20–38.
- Assrfa, M., Rao, D., Jagannadha, Y., and Yohannes, D. (2020). Designing of accounting information system for small and medium enterprises: Application of PLS-SEM. *International Journal of Sciences: Basic and Applied Research (IJSBAR)(2020) Volume*, 54, 124–139.
- Atharrizka, N., and Nurjanah, Y. (2021). *The Impact of Accounting Information Systems and Internal Control on Quality Local Government Financial Statements*. 124–124.
- Atiningsih, S. (2020). The Implementation of Government Accounting Standards, Internal Control Systems and Information Technology Utilization on The Quality Of Local Government Financial Statements With Organizational Commitments As Moderation Variables. *ACCRUALS (Accounting Research Journal of Sutaatmadja)*, 4(02), 216–229.
- Bai, X., Nunez, M., and Kalagnanam, J. R. (2012). Managing data quality risk in accounting information systems. *Information Systems Research*, 23(2), 453–473.
- Bamwira, J. R. (2011). *Accounting information system, financial decentralization and quality of financial reporting in Kampala City Council*. Makere University.
- Budiman, T. L., and Daito, A. (2022). Determinants of the Quality of Financial Statements with Accounting Information System as Intervening Variables. *Dinasti International Journal of Economics, Finance and Accounting*, 3(1), 33–43.
- Chalu, H., and Kessy, S. (2015). Accounting information systems and governance issues in local government authorities in Tanzania. *Business Management Review*, 15(1).
- Chang, C.-S., Chen, S.-Y., and Lan, Y.-T. (2012). Motivating medical information system performance by system quality, service quality, and job satisfaction for evidence-based practice. *BMC Medical Informatics and Decision Making*, 12, 1–12.
- Demiraj, R., Shkurti, A., and Demiraj, E. (2021). Assessing The Perceived Usefulness of Accounting Information in Albania. *Manag Econ Res J*, 7(4).
- Dharma, F., Metalia, M., and Sembiring, S. I. O. (2023). Factors Affecting Quality of Accounting Information and its impact on local government fixed assets management's effectiveness: A study on Local Government of Indonesia. *The Indonesian Journal of Accounting Research*, 26(1), 49–84.
- Enwereji, P. C., and Uwizeyimana, D. (2019). Exploring the key factors that can enhance municipal financial accountability in Africa: Experience from South Africa. *African Renaissance*, 16(Special Issue 3), 143–165.
- Fitriati, A., Tubastuvi, N., and Anggoro, S. (2020). The role of AIS success on accounting information quality. *The International Journal of Business Management and Technology*, 4(2), 43–51.
- Gcora, N., and Chigona, W. (2019). Post-implementation evaluation and challenges of Integrated Financial Management Information Systems for municipalities in South Africa. *South African Journal of Information Management*, 21(1), 1–12.
- Giacomini, D. (2020). Use of accounting information by mayors in local governments. *International Journal of Public Administration*, 43(4), 341–349.
- Hosain, M. S. (2019). The Impact of Accounting Information System on Organizational Performance: Evidence from Bangladeshi Small and Medium Enterprises. *Journal of Asian Business Strategy*, 9(2), 133–147.
- Huynh, Q. (2021). *The effect of organizational culture on quality of accounting information: Mediating the role of accounting information system*. *Accounting*, 7 (7), 1689–1694.
- Indeje, W. G., and Zheng, Q. (2010). Organizational culture and information systems implementation: A structuration theory perspective. *Sprouts: Working Papers on*
-

- Information Systems. Retrieved from https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1348&context=sprouts_all.
- Khanyile, M. W. (2016). *Evaluation of financial accountability, financial control, and financial reporting at Umtshezi Municipality: A case study*. Durban University of Technology.
- Kurniati, P. S., and Alias, S. (2021). Accounting information systems in Indonesia: A case study. *Management and Accounting Review (MAR)*, 20(2), 117–135.
- Kwetana, B. (2019). *Assessing the Readiness for the Implementation of Municipal Standard Chart of Accounts (mSCOA)*. Master's dissertation, Nelson Mandela University.
- Mailovich, C. (2019). *Business Day, 26 June. Only 18 municipalities got clean audits in 2017/2018*. Retrieved from <https://www.businesslive.co.za/bd/national/>.
- Makwetu, K. (2019). Auditor-general flags lack of accountability as the major cause of poor local government audit results. *Auditor General South Africa, Media Release*.
- Mazibuko, G. (2020). Local Government: Getting the South African Municipal Finances Right. *Information Management and Business Review*, 12(4 (I)), 1–11.
- Missier, P., Lalk, G., Verykios, V., Grillo, F., Lorusso, T., and Angeletti, P. (2003). Improving data quality in practice: A case study in the Italian public administration. *Distributed and Parallel Databases*, 13, 135–160.
- Muda, I., Wardani, D. Y., Maksum, A., Lubis, A. F., Bukit, R., and Abubakar, E. (2017). The Influence of Human Resources Competency and the Use of Information Technology on the Quality of Local Government Financial Report with Regional Accounting System as an Intervening. *Journal of Theoretical and Applied Information Technology*, 95(20).
- Muliyani, D., Phua, L. K., Teh, S. Y., and Lim, T.-C. (2021). Obstacles to Accounting Information System Performance in Indonesian Public Sector. *Global Business and Management Research*, 13.
- Neogy, D. (2014). Evaluation of efficiency of accounting information systems: A study on mobile telecommunication companies in Bangladesh. *Global Disclosure of Economics and Business*, 3(1).
- Ngoepe, M., and Ngulube, P. (2016). A framework to embed records management into the auditing process in the public sector in South Africa. *Information Development*, 32(4), 890–903.
- Oduro, R., Enyan, E. K., Acquah, A. A., and Quarm, R. S. (2022). Linking Computerized Accounting Information System adoption to Financial Performance in the Public Sector: The influence of Internal Control Systems. *European Journal of Business and Management Research*, 7(2), 227–239.
- Oktyawati, D., and Fajri, F. A. (2019). The influence of accounting internal control and human resources capacity on reliability and timeliness of regional government financial reporting (a study in Special Region of Yogyakarta Province). *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah*, 6(4), 525–534.
- Rahman, A., and Fachri, Z. (2016). Regional Financial Accounting Information System and the Quality of Local Government Financial Reports. *Information Management and Business Review*, 8(4), 64–68.
- Rahmatika, D. N., and Afiah, N. (2014a). The impact of internal audit function effectiveness on quality of financial reporting and its implications on good government governance research on local government Indonesia. *Research Journal of Finance and Accounting*, 5(18), 64–75.
- Rahmatika, D. N., and Afiah, N. N. (2014b). Factors influencing the quality of financial reporting and its implications on good government governance. *International Journal of Buainwaa, Economics and Law*, 5(1), 2289–1552.

-
- Saleh, F. M. (2013). Critical success factors and data quality in accounting information systems in Indonesian cooperative enterprises: An empirical examination. *Interdisciplinary Journal of Contemporary Research in Business*, 5(3), 321–338.
- Sari, E. N. (2018). The Successful Implementation of Accounting Information Systems and the Quality of Government Financial Statements at Regencies. *International Business Management*, 12(4), 346–352.
- Setiyawati, H., and Doktoralina, C. (2019). The importance of quality accounting information management in regional governments in Indonesia. *Management Science Letters*, 9(12), 2083–2092.
- Sumaryati, A., PRAPTIKA NOVITASARI, E., and Machmuddah, Z. (2020). Accounting information system, internal control system, human resource competency and quality of local government financial statements in Indonesia. *The Journal of Asian Finance, Economics and Business*, 7(10), 795–802.
- Xu, H. (2003). *Critical success factors for accounting information systems data quality. Doctoral thesis, University of Southern Queensland.*
- Xu, H., Horn Nord, J., Daryl Nord, G., and Lin, B. (2003). Key issues of accounting information quality management: Australian case studies. *Industrial Management and Data Systems*, 103(7), 461–470.
- Yanti, R. E., and Pratiwi, C. W. (2022). Factors affecting The Quality of Accounting Information: The Role of Accounting Information Systems. *Jurnal Riset Akuntansi Kontemporer*, 14(1), 107–114.
- Yassin, A. A., and Harnovinsah, H. (2021). Factors Affecting the Quality of Village Financial Reports Using Information Technology as Moderation Variables (Study in the Villages in the Tangerang District). *International Journal of Management Studies and Social Science Research*, 3(1).

SSIRC 2023-235**SUSTAINABLE BUSINESS PERFORMANCE AND INTANGIBLE ASSETS:
EVIDENCE FROM SELECTED AFRICAN COUNTRIES****R.O. Iliemena-Ifeanyi**

Nnamdi Azikiwe University, Nigeria

J.M. Amedu

Edo state Polytechnic Usen, , Nigeria

ABSTRACT

This study examined the influence of environmental, social and economic practices on intangible assets ratio (IAR) as a way of advancing informed decision-making towards the pursuit of sustainable development. A sample of 27 oil and gas companies were taken from 5 leading countries in Sub-Sahara Africa as measured by their Gross Domestic Product (GDP). Secondary data were obtained from annual reports of the selected companies from 2018 to 2021 using ex-post facto research design and content analyses of integrated and sustainability reports, respectively. The prais-Winsten regression method was used for the purpose of data analyses. Findings show that Environmental performance has no significant effect on the IAR; social performance has a significant effect on the IAR; economic performance has a non-significant positive effect on the IAR. This study concludes that the relationship between sustainable business performance and intangible assets is a complex one, and it can be concluded that the influence of sustainable business performance on intangible assets depends on the extent of investment in sustainable business practices. Hence, the greater the extent of investment, the greater the influence and significance. This suggests that companies prioritising social initiatives may undervalue their intangible assets, such as reputation and brand value. As a way-forward, it is recommended that companies should consider the potential benefits of leveraging their environmental and social performance practices to enhance their intangible assets, such as reputation and brand value, and develop a strategy to effectively train their staff and build up business innovations in this regard. This should be followed up by periodic performance reviews using the method adopted in this study.

KEYWORDS: sustainable economic performance, sustainable environmental performance, sustainable social performance, intangible asset ratio.

1. INTRODUCTION

Global environmental catastrophes, including climate change, global warming, oil spillage, and depletion of natural resources, have caused recent attention being paid to sustainability issues globally by the different stakeholders. The interests of world bodies have further heightened the flow of concern to sustainable business practices, for example, the United Nations' (UN) introduction of the sustainable development goals (SDGs), the introduction of the Integrated Reporting (IR) frameworks by the International Integrated Reporting Council (IIRC) and the introduction of sustainability reporting standards and guidelines by the Global Reporting Initiative

(GRI). Emerging economies have been noted by Chukwuka and Eboh (2018) as having a greater percentage of the global environmental problems due to the activities of profit-driven business managers, hence, have greater need for sustainability-driven business focus. The above case is worse in countries where oil exploration and exploitation activities take place; like the Sub-Sahara African countries, as their operations continuously lead to air and water pollution due to carbon emissions and oil spillage, gas flaring and many other harms to land, human beings in the social environment and within the firm which culminate to destruction and loss of values. The introduction of sustainable business practices (also called green practices) and regulations demanding the reporting of values created and lost is therefore a potent and credible way to resolve these global issues (McEwen, 2013).

This is presumed to have direct and indirect impacts on intangible assets as the current development demands the full deployment of sustainable innovation in product development, processing, distribution and even in the sourcing of raw-material inputs. Intangible assets are increasingly recognised as a major driver of corporate competitiveness and sustainability (Ionita & Dinu, 2021, Iliemena, 2020). Sustainable innovation requires organisations to change their philosophy and their conception of value creation as mere economic value; to accommodating human, social, environmental, governance and other factors that lead to long-term improvement in organisational performance and more sustainable value (Adams, Jeanrenaud, Bessant, Denyer & Overy, 2016). With the introduction of sustainable innovation, there is a need for all key players in corporate organisations, including Management Accountants, Financial Controllers, Chief Finance Officers and the management team generally, to adjust their roles to focus also on dealing with both external and deeper internal affairs and their effects on operations. Time has recorded an increase in research investigating the impact of intangible assets generally on corporate performance and sustainable growth. However, the literature review revealed scanty literature had investigated the relationship and impact of sustainable business performance on intangible assets. Also, only a few of these studies emanated from sub-Sahara Africa, with most existing evidence focused on developed economies like UK, US, Germany, etc. Boika (2021) posits that the different innovative activities which firms engage in vary with differences in the country location of the firm. Also, Lee and Choin (2015) highlight that the pattern of research and development (which forms part of intangible assets) in developed economies is different from that of emerging markets. In order words, the results of studies from developed economies cannot be generalised in this regard. Consequently, this study aims to examine the extent to which sustainable business performance influences intangible assets in sub-Saharan Africa.

2. LITERATURE REVIEW

2.1. Sustainable Business performance

Sustainable performance is the performance that measures in the least, the economic, environmental, and social values and further incorporates other forms of value from a broad range of stakeholders, in its management strategy and policy formation (Karan, 2019). It is no longer a debate whether it is necessary for a business to integrate sustainability into its business practices and performance management system. Caraiiani, Lungu, Dascalu, Cimpoeru and Dinu (2012) opine that sustainable performance indicators are usually portrayed in qualitative terms rather than

quantitative terms which often make it challenging to assign financial values to each performance indicator. In this study, we considered three basic areas of sustainable business practices and built performance measurement metrics around the three areas in line with IIRC (2021) and GRI (2013) as applicable to oil and gas companies. The IIRC framework for IR released on 19th January 2021 stated that the processes through which value is created, eroded, or preserved revolve around factors which include the external environment (economic, technological, societal, and environmental conditions), governance, business models, risks and opportunities, strategy, and resources allocation. The performance measurement here thus centres on how well a business considers and responds to the legitimate needs and interests of its stakeholders, including the extent to which these were captured in organisational policies and strategies as reported. This study, therefore, classified and measured the sustainable business performance of the oil and gas companies as under.

Economic practices and performance: the economic aspect of sustainable business performance measures the flow of capital and the impact of the business organisation on the economic conditions of its stakeholders; and on local, national, and global economic systems. The economic performance indicators are, therefore, Energy efficiency (use of renewable energy), Water management, Technological innovations, Business risks and opportunities, and Investments in infrastructure.

Environmental practices and performance: This covers practices including hazardous waste management, strategies to control pipeline leakages, biodiversity impact management practices, and green-house gas and ozone-depleting substance emission reduction strategies. The environmental performance indicators are therefore, Hazardous waste management, Green House Gas (GHG) emission reduction, Leakage control, biodiversity impact management, ozone depleting substance (ODS) emission control.

Social practices and performance: An organization's social performance resolves around corporate social responsibility, and the ability of the organization to translate social policies into practice. The social performance aspect of sustainable practice involves the measurement of an organization's engagement in community development, health and safety practices, output control measures, employee training practices and equal employment opportunity practices. Consequently, the social performance indicators are community development initiatives (CDI), occupational health and safety practices (OHS), oil and gas quality control, employee training and equal employment opportunity (EEO) Guidelines.

2.2. Intangible assets

In the past, much literature has tried to find out how intangible assets influence the performance of companies (Ionita & Dinu, 2021). On the other hand, very little evidence exists on the relationship between sustainable business performance and intangible assets. Among the existing studies, Sewchurran, Dekker and McDonogh (2019) found that investments in intangible assets by South-African companies with poor economic results encourage sustainable growth. Ocak and Findik (2019) proved the existence of a positive relationship between intangible assets, sustainable growth, and firm value in Turkish listed companies by employing sustainable growth rate (SGR) algorithms. In these studies, different definitions were given to the values of intangible assets. For

the purpose of this study, we will measure the value of intangible assets as the ratio of intangible assets to total assets as represented in the statement of financial position. Turovets (2021) in his study revealed that even though intangible assets have been assumed in the past to increase the production capacity of firms, only a few studies have examined intangible assets as a predictor of firm efficiency and value. The use of the Intangible Asset Ratio (IAR) according to Zhang (2017) identifies the extent to which a firm can create value in future using its assets. $IAR = \text{total intangible asset} / \text{total asset}$.

2.3.Stakeholder Theory–Freedman (1984)

The Stakeholder Theory is a theory of organisational management and business ethics that accounts for multiple constituencies impacted by business entities. Stakeholder Theory states that the purpose of a business is to create value for stakeholders not just shareholders. Therefore, a business needs to consider customers, suppliers, employees, communities, and shareholders (Stakeholdermap, 2019). As businesses exist not only for the purpose of their owners (the shareholders), but it is also expected that the aim of the business will be fashioned in such a way that the owners are satisfied without harm to customers, communities, government, or other stakeholder groups. Going by the stakeholder theory, the implication is that the success of a business indirectly depends on the well-being of its stakeholders as they become a vital part of the business goal and success. This study adopts the stakeholder theory to provide theoretical support for both the dependent (value creation) and independent (sustainable business performance) variables.

The relevance of this theory to this research lies in its focus on morals and values in managing an organisation and forms a basic framework for sustainability reporting practices and Guidelines. For example, ISO 26000 and Global Reporting Initiatives' guidelines which are both sustainability reporting friendly, involve stakeholder analysis (Duckworth & Moore, 2010).

2.4.Empirical reviews

In a recent study, Sisca and Wijaya (2023) investigated the relationship existing between green innovation and sustainable business performance of micro, small and medium (MSMEs) enterprises in Indonesia during the COVID-19 pandemic. 371 MSMEs formed the population of study from the food and beverage sector. The primary data generated were analysed using structural equation modelling (SEM). Evidence from the study indicated that green innovation has a significant and positive relationship with sustainable business performance, but the influence was found to be higher on environmental performance, while no effect of green innovation was found on economic performance. This study even though it is recent, is, however, criticised for the focus on MSMEs which are known to pay little or no attention to sustainable business practices than large firms in regulated markets.

Agrawal, Wankhede, Kumar, Upadhyay and Garza-Reyes (2022) recently studied future research directions in the areas of circular economy and sustainable business performance in the context of digitalisation using a systematic literature review methodology. The research emphasises was on publications on two data bases, Web of Science (WOS) and SCOPUS. The significant

contributions and collaborations by authors in different journals and countries in these areas in the present era of digitalisation were compared as a bibliometric study. The analytical review of the literature revealed that digitalisation is an advantage in developing sustainable products; customer involvement was also found to be necessary in creating innovative products. The major weakness of this study was its failure to subject the findings to empirical testing. This study can therefore be said to have relied on the methodological and theoretical weaknesses of past studies.

Ionita and Dinu (2021) investigated the effects of the different components of intangible assets on firm value and sustainable growth using a sample of firms listed on the Bucharest Stock Exchange (BSE) Rome from the period 2017 to 2019 reporting period. The statistical tests of the hypothesis were done using the linear regression method (ordinary least square technique). Findings show that all components of intangible assets impact sustainable growth and firm value.

Karan (2019) examined the need for sustainable performance, value and ethics through systematic literature and Quran reviews. The study constructed sustainable performance measurement metrics derived from the four Ps of product/service, planet, profit, and people and anchored on Halal-based theories from the Islamic perspective. Findings revealed that organisational practices grounded in Islamic principles lead to sustainability by ensuring justice for all stakeholders, balance, and moderation. The finding generated from the study further connote that value creation in an organisation when built on Halal-based theory, is an innovation to enhance competitiveness and sustainability by generating quality products/ services, profit, and ensuring the well-being of society and the planet. This evidence from an Islamic perspective may not yield the same outcome when subjected to empirical testing, and then liberal studies need to look beyond the religious aspect of sustainable performance.

Pallay (2019) investigated the extent of integrated reporting of sustainable business performance among listed firms in Kenya. The study focused on environmental and social performance as indicated in the IR of the 22 listed firms on the Nairobi stock exchange from 2012 to 2017 using a defined rating scale. Wilcoxon's signed-rank test was used to analyse the level of differences over the years, while descriptive statistics was employed in analysing the rated performance pattern. Findings indicate that the sustainability performance of firms in Kenya has improved over the years. This study is criticised for its focus on only Kenya, small sample size, focus on only two aspects of performance and its failure to address the level of influence of each of the aspects on value creation.

Zhang (2017) conducted a study on the relationship between value creation in intangible assets and the profitability of business enterprises measured using return on assets (ROA). The study was anchored on 17 telecommunication companies listed in China, and the scope of the study ranged from 2014 to 2016. The result of the correlation analyses indicated that when a company creates value in intangible assets, it significantly and positively affects the level of corporate profitability in terms of ROA. This study however focused on only an aspect of value creation and further failed to measure the influence of sustainable business performance on the study variables.

3. METHODOLOGY

The *ex-post facto* research design was adopted in this study. This was aided by the content analysis of integrated and sustainability reports. The population of the study was made up of 104 manufacturing companies in Oil and gas subsectors in South Africa (Southern Africa), Nigeria (Western Africa), Kenya (Eastern Africa), Ethiopia (Horn of Africa) and Egypt (Northern Africa). The full list of the companies is contained in Appendices, while the total figure is made up as follows; SouthAfrica 7, Nigeria 11, Kenya 16, Ethiopia 18, Egypt 52 companies. A Judgmental sampling technique was used to select companies with a complete and accessible set of annual performance reports for the period of this study, 2018 to 2021. Only 27 companies properly fit into our study sample which may stem from the level of regulation, supervision, and market visibility in the respective countries, and which is outside the Researchers’ control. Hence, 27 companies formed the study sample, as contained in the appendices. The country breakdown is as follows; South Africa 6, Nigeria 9, Kenya 3, Ethiopia 2, and Egypt 7 companies. On the suitability of this number to be representative of the population, we statistically tested the sufficiency of this number to represent the population using Krejcie and Morgan’s (1970) approach, which considers 5% of a defined population as an appropriate sample size for making generalisations. The percentage of the sample to the population is thus calculated as follows.

$$\frac{27}{104} \times 100 = 26.62\%$$

$$\frac{27}{104} \times 100 = 26.62\%$$

Hence, the sample of 27 companies was adopted for the study as 26.62% is more than 5% of our total population. Secondary data were obtained from sources which include the annual financial statements of companies, integrated reports, and sustainability reports of the sampled companies from 2018 to 2021. In measuring the economic, environmental, and social performances of the oil and gas firms under study, we computed the sustainable performances indices based on their business practices around the environmental, social and economic indicators as reported in integrated reports and sustainability reports using an index of 5 and assign weights based on the level of performance.

This study employed the *Prais-Winsten regression* analysis method in examining the variables of the study. However, we also employed the Pearson coefficient of correlation to study the relationship among our variables of study, the strength, and the direction of the relationship among them. The unique linear equation model formulated for the purpose of this study is contained below: $IAR = c_0 + ECOP + ENVP + SOCP + \epsilon_{it}$ -----1

Were.

IAR = Intangible asset ratio of for firm i in period t.

As a rule, we accept the null hypotheses where the probability values are greater than the alpha value, otherwise, we reject.

4. ANALYSIS AND DISCUSSIONS

4.1. Descriptive statistics

Table 1 Summary Statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|----------|-----|----------|-----------|-----|----------|
| IAR | 108 | .0397301 | .0761735 | 0 | .4009855 |
| ECOP | 108 | 3.85 | .9122735 | 2 | 5 |
| ENVP | 108 | 2.257407 | 1.250959 | 1 | 4.8 |
| SOCP | 108 | 3.581481 | .8196361 | 1.6 | 5 |

Source: Analysis Output 2023

Table 1 presents summary statistics for IAR, ECOP (economic performance), ENVP (environmental performance), and SOCP (social performance), derived from a sample of 108 observations on 27 oil and gas firms in five African countries from 2018 to 2021. The mean value for IAR is 0.0397301, indicating a positive average trend value for the IAR. However, the standard deviation value of 0.0761735 suggests considerable variability within the sample.

The mean value for ECOP is 3.85, indicating a moderately high level of economic performance, with a relatively low standard deviation of 0.9122735. ENVP and SOCP have mean values of 2.257407 and 3.581481, respectively, indicating moderate levels of environmental and social performance, with standard deviation values of 1.250959 and 0.8196361, respectively.

For IAR, the minimum value is 0, indicating that some firms had no intangible assets, while the maximum value is 0.4009855, suggesting that some firms have a substantial proportion of intangible assets relative to total assets.

Summarily, the summary statistics suggest considerable variation among the firms in terms of their sustainable business performance and value creation, highlighting the need for further analysis to examine the relationship between these variables.

4.2. Test of hypothesis

H₀: Sustainable business performance does not significantly influence the intangible assets of firms.

To test this hypothesis, the aggregated effect of economic performance (ECOP), environmental performance (ENVP) and social performance (SOCP) on IAR was estimated.

Table 2 Prais-Winsten regression for Test of Null Hypothesis

| Model | Coefficient | Standard error | Z-statistic | P> z |
|-------------|-------------|----------------|-------------|-------|
| ECOP | .0484723 | .0265614 | 1.82 | 0.068 |
| ENVP | -.035227 | .0240703 | -1.46 | 0.143 |
| SOCP | -.0282741 | .0143297 | -1.97 | 0.048 |
| R-Squared | 0.3182 | | | |
| Wald chi2 | 8.23 | | | |
| Prob > chi2 | 0.0416 | | | |

Source: Analysis Output 2023

Based on the results of the Prais-Winsten regression analysis presented in Table 31, the Z-statistic and its associated probabilities were used to assess the individual effects of the proxies of sustainable business performance on intangible assets. While ENVP and SOCP have a negative effect on the IAR, there is a positive association between economic performance and IAR. However, only the negative effect of social performance is significant at a 5% alpha level. More so, the R-squared value of 0.31582 indicates that the model explains only 31.82% of the variance in IAR. Wald chi2 value of 8.23 has an associated Prob > chi2 = 0.0416, indicating that the model is significant in predicting IAR based on ECOP, ENVP and SOCP. Thus, since the overall Prob > chi2 is less than a 5% significance level, the alternate hypothesis that sustainable business performance significantly influences the intangible assets of firms was accepted.

5. DISCUSSION OF FINDINGS

The finding suggests that there is a negative impact of environmental (ENVP) and social (SOCP) performance on the IAR of firms. This may be due to the perception that investments in environmental and social activities may not generate immediate financial returns, which could lead to a decrease in the IAR. While it is uncommon for an increase in social performance and environmental performance to result in a decrease in IAR, it could be explained by factors such as a lack of alignment between sustainability performance initiatives and core values, ineffective execution of social performance initiatives, or a mismatch between the interests and values of stakeholders and the company's social and environmental responsibility initiatives. In the study carried out by Eboh and Chukwuka (2018), it was found that green practices are positively associated with organisational performance. Also, this outcome is somewhat in line with the earlier finding by Ionita and Dinu (2021) that intangible asset impacts sustainable growth.

On the other hand, there is a positive association between economic performance and IAR, implying that firms with higher economic performance tend to have higher intangible asset ratios. This may be since strong financial performance enables firms to invest in intangible assets such as brand equity, patents, and employee training, which can enhance their competitiveness and market position. Maria (2016) found a similar positive association using empirical evidence derived from Philippine companies.

Intangible assets are crucial to a company's long-term success, as they contribute to a company's competitive advantage and can create significant value. However, intangible assets are often difficult to quantify and measure, and their contribution to a company's overall value can be underestimated. The IAR is a metric that provides insight into a company's intangible assets relative to its total assets, and it is used to evaluate a company's competitive advantage and overall value.

The negative impact of environmental and social performance on the IAR is a relatively new phenomenon, and it highlights the challenges that companies face when trying to balance sustainability initiatives with financial performance. Companies that prioritise sustainability initiatives may experience a decrease in their IAR due to the perception that investments in sustainability do not generate immediate financial returns. However, it is important to note that

this negative impact is not always the case, and many studies have shown a positive association between sustainability initiatives and organisational performance.

In contrast, the positive association between economic performance and IAR highlights the importance of strong financial performance in enhancing a company's intangible assets. Companies with stronger financial performance are better positioned to invest in intangible assets such as brand equity, patents, and employee training, which can create significant value and contribute to a company's competitive advantage.

To strike a balance between sustainability initiatives and economic performance, companies need to adopt a holistic approach that considers the interests and values of all stakeholders, including investors, employees, customers, and the community. Companies need to communicate their sustainability initiatives effectively and demonstrate how these initiatives can create value over the long term. They also need to invest in building a strong brand reputation and enhancing their competitive advantage through the development of intangible assets. In all, the finding that there is a negative impact of environmental and social performance on the IAR highlights the importance of a balanced approach to sustainability and financial performance management.

6. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Environmental performance has a non-significant negative effect on the IAR; social performance has a significant negative effect on the IAR; economic performance has a non-significant positive effect on the IAR. This study, thus, concludes that the relationship between sustainable business performance and intangible asset is a complex one and it can be concluded that the influence of sustainable business performance on intangible assets depends on the extent of investment in sustainable business practices. Hence, the extent of investment is directly proportional to the level of influence and significance. This suggests that companies that prioritise social initiatives may be undervaluing their intangible assets, such as reputation and brand value. As a way forward, it is recommended that.

1. Companies should consider the potential benefits of leveraging their environmental and social performances to enhance their intangible assets, such as reputation and brand value, and develop a strategy to effectively train their staff and build up business innovations in this regard. This should be followed up by periodic performance reviews using the method adopted in this study.
2. Companies should prioritise social initiatives that align with their values and mission, while also focusing on building and maintaining strong intangible assets that contribute to long-term success.

REFERENCES

- Adams, R., Jeanrenaud, S., Bessant, J., Denyer, D. & Overy, P. (2016). Sustainability-oriented innovation: A systematic review. *International Journal of Management Reviews*, 18, 180 – 205.

-
- Agrawal, R., Wankhede, V.A., Kumar, A., Upadhyay, A. & Garza-Reyes, J.A. (2022). Nexus of circular economy and sustainable business performance in the era of digitalisation. *International Journal of Productivity and Performance Management*, 71(3), 748-774.
- Boiko, K. (2021). R&D activity and firm performance: mapping the field. *Management Review Quarterly*, 1, 1-37.
- Caraiani, C., Lungu, C.L., Dascalu, C., Cimpoeru, M.V. & Dinu, M. (2012). Social and environmental performance indicators: Dimensions of integrated reporting and benefits for responsible management and sustainability. *African Journal of Business Management*, 6 (14), 4990-4997.
- Chukwuka, E.J., & Eboh, E.A. (2018). Effect of green business practices on organisational performance of selected manufacturing firms in Nigeria. *International Journal of Development and Management Review (INJODEMAR)*, 13 (1), 1-26.
- Duckworth, H.A & Moore, R.A. (2010). Social Responsibility: Failure Mode Effects and Analysis,10. ISBN 978-1439803745. Retrieved on 11th April 2021 from <http://www.books.google.com.ng/books>
- GRI (Global Reporting Initiative) (2013). Sustainability Reporting Guidelines & Oil and Gas Sector Supplement, 64.
- IIRC (International Integrated Reporting Council) (2021). International IR Framework [Online], 21 -24. Assessed on 23rd May 2021 from <http://www.theiirc.org/>.
- Iliemena, R.O. (2020). Environmental Accounting Practices and Corporate Performance: Study of Listed Oil and Gas Companies in Nigeria. *European Journal of Business and Management*, 12 (22), 58 – 70.
- Institute of Management Accounting (IMA). (2022). Sustainable Business Management. Retrieved on 2nd May from <https://www.imanet.org/about-ima/sustainable-business-management?ssopc=1>
- IFRF–International Financial Reporting Foundation (2004). International Accounting Standard Number 38 - Intangible Assets. Retrieved on 24th May 2022 from <http://www.ifrs.org/issued-standards/list-of-standards/ias-38-intangible-assets/>
- Ionita, C. & Dinu, E. (2021). The effects of intangible assets on sustainable growth and firm value: Evidence on intellectual capital investment in companies listed on Bucharest Stock Exchange. *Kybernetes ahead-of-print*. DOI: [10.1108/K-05-2020-0325](https://doi.org/10.1108/K-05-2020-0325)
- Karan, N. (2019). Knowledge of value creation and sustainable performance. *Medcave Journal of Management*, 2 (1), 106 – 116.
- Krejcie, R.V. & Morgan, D.W. (1970). Determining sample size for research Activities. *Educational and Psychological Measurement*, 30, 607 - 610
-

-
- Lee, M. & Choi, M. (2015). Analysis on time-lag effect of research and development investment in the pharmaceutical industry in Korea. *Osong Public Health and Research, Perspectives*, 6, 241-248.
- Maria, V.U. (2016). Impact of sustainability practices on the firms' performance. *Asia Pacific Business & Economics Perspectives*, 4 (1), 4 – 21.
- McEwen, T. (2013). Ecopreneurship as a solution to environmental problems: implication for intentional. *Journal of Academic Research and Social Sciences Business Venturing*, 22(1), 50 -76
- Ocak, M. and Findik, D. (2019). The impact of intangible assets and sub-components of intangible assets on sustainable growth and firm value: evidence from Turkish listed firms. *Sustainability*, 2019 (11), 53-59.
- Pallay, S. (2019). Evaluation of Integrated Reporting Adoption in the Financial Sector of Kenya. *African Journal of Business and Economic Research (AJBER)*, 14 (3), 53 – 69.
- Sewchurran, K., Dekker, J. & McDonogh, J. (2019). Experiences of embedding long-term thinking in an environment of short-termism and sub-par business performance: investing in intangibles for sustainable growth. *Journal of Business Ethics*, 157 (4), 997-1041.
- Sisca, S., & Wijaya, A. (2023). The Role of Green Innovation to Achieve Sustainable Business Performance of MSMEs in the COVID-19 Pandemic. *International Journal of Science, Technology & Management*, 4(1), 228-232. <https://doi.org/10.46729/ijstm.v4i1.750>
- Stakeholdermap (2019). Stakeholder Theory. Retrieved on 16th June 2019 from <http://www.stakeholdermap.com>
- Zhang, N. (2017). Relationship between intangible assets and financial performance of listed telecommunication firms in China based on empirical analysis. *African Journal of Business Management*, 11 (24), 751 – 757.

APPENDICES

Appendix 1: Population cluster

South Africa (source: African Markets, www.africanmarkets.com); Vivo Energy Plc, Sasol, Oando Plc, Montauk Renewables, Exxaro Resources, Erin Energy Corporation, Efora Energy.

Nigeria (source: African Markets, www.africanmarkets.com); Ardova, Capital oil, Caverton offshore support group, Conoil, Eterna, Japaul Gold & Ventures, MRS oil Nigeria, Oando, Rak Unity, Seplat Energy, Total Energies marketing Nigeria.

Kenya (Source: Waruguru, 2022 and African Markets, www.africanmarkets.com); Vivo Energy, Total Energies, Rubis Energy, Libya oil, National oil corporation of Kenya (NOCK), Kenya petroleum Refineries (KPRL), Tosha Energy, Hashi Energy, Hass Energy, Engen petroleum,

Galena oil Kenya, Astrol petroleum, Global oil petroleum limited, Exxonmobil, Riva petroleum Dealers, Lexo Energy.

Ethiopia (source: African Markets, www.africanmarkets.com); Ethiopian petroleum Enterprise, Gomeju oil Ethiopia, Libya oil, Nile Petroleum, Shell, TAF oil Plc, Total Ethiopia, Yetebaberat Beherawi Petroleum, Ghion gas, North pacific oil and gas, Sputnik oil and gas, P&B oil and gas well, Oilpro oil and gas, Biddyosa oil and gas, Waterseals oil and gas, National oil Ethiopia Plc, Tullow oil, southwest Energy.

Egypt (source: Gulf oil & gas, 2022, www.gulfoilandgas.com); Egyptian General Petroleum corporation (EGPC), Egyptian Natural gas holding co. (EGAS), Ganoub El Wadi Petroleum Holding Company (Ganope), Eni group, IPR Transoil corporation (IPRTOC), Agiba Petroleum co. (Agypetco), Apache, Ayadsons group, Badr El Din Petroleum co. (BAPETCO), Belayin Petroleum Company (Petrobel), BG Egypt, Maridive& oil services, National drilling company, Dana petroleum, Pharos energy, DEA Egypt, East Zeit Petroleum company (Zeitco), El Wastani Petroleum company (WASCO), Epedeco, General Petroleum company (GPC), ENAP Sipetrol Egypt, Gulf of Suez Petroleum (Gupco), Leoc Production B.V, INA-IndustrijaWaftad.d., IPR Red sea, Khalda Petroleum company, Merlon Petroleum Company, PetrogulfMisr, Petzed, Rashid Petroleum Company (Raspetco), Shell Egypt N.V., Tharwa Petroleum Company, Timgad Energy (TE), TransGlobe Energy Egypt, General Petroleum Company (GPC), IPR Exploration, Al Amal Petroleum company (AMAPETCO), Deminex Egypt, Devon Energy Suez Inc., Dublin Int'l Petrpleum, Fayum Gas Company, Forum Exploration, Ghareb Oil services, Hurgada Petroleum Company (Petrolhurgada), National Gas company (NATGAS), Penzoil, petroSinai, scimitar Production, seagull East Zeit Petroleum, Tullow oil, Vopak Horizon Sokhna (VASL), Western Desert Operating Petroleum (WEPCO).

Appendix 2: List of samples

South Africa (source: African Markets, www.africanmarkets.com); Vivo Energy Plc, Sasol, Oando Plc, Montauk Renewables, Exxaro Resources, Efora Energy.

Oil and Gas companies in Nigeria (source: African Markets, www.africanmarkets.com); Ardova, Caverton offshore support group, Conoil, Eterna, Japaul Gold & Ventures, MRS oil Nigeria, Rak Unity, Seplat Energy, Total Energies marketing Nigeria.

Oil and Gas companies in Kenya (Source: Waruguru, 2022 and African Markets, www.africanmarkets.com); Vivo Energy, Total Energies, Rubis Energy.

Oil and Gas companies in Ethiopia (source: African Markets, www.africanmarkets.com); Tullow oil, southwest Energy.

Oil and gas companies in Egypt (source: African Markets, www.africanmarkets.com , Gulf oil & gas, 2022, www.gulfoilandgas.com); Egyptian Natural gas holding co. (EGAS), Eni group, Apache, ENAP Sipetrol Egypt, INA-Industrijanafte d.d., Maridive & oil services, National drilling company.

SSIRC 2023-236**DEVELOPING AN ONLINE TRAINING MODEL FOR LECTURERS AT HIGHER EDUCATION INSTITUTIONS****L. Rajagopaul**

North-West University, South Africa

N. Mouton

North-West University, South Africa

V. Leendertz

North-West University, South Africa

ABSTRACT

Lecturer training and development (T&D) is crucial for the success of Higher Education Institutions (HEIs), and online T&D has emerged as a viable alternative. This study aimed to develop a guide to the Online Staff Development (OSD) model, which integrates short learning programmes (SLPs) into the existing Learning Management System (LMS) that is currently used by South African HEIs. The OSD model focuses on enhancing lecturers' pedagogical skills through open and dispersed learning facilitated by network-based and Internet technologies. The study employed a mixed-methods research design with two phases. In Phase 1, online interviews were conducted with eight experts from Centres for Teaching and Learning (CTL) at South African HEIs. In Phase 2, an online survey was administered to 200 lecturers currently using the LMS for Teaching and Learning (T&L) at South African HEIs, with a response rate of 62.50% (125 responses). Qualitative data analysis was conducted using NVivo, while quantitative data were analysed with SPSS version 27. The study highlights the importance of ongoing support, technical assistance, necessary resources, and key performance indicators for effective engagement in online SLPs for lecturer T&D. Additionally, top management support is crucial for the success of the OSD platform.

KEYWORDS: Higher education institutions, online learning, learner management systems, lecturer, training, and development, teaching and learning, pedagogical skills, TPACK

1. INTRODUCTION AND BACKGROUND

Lecturer training and development (T&D) are crucial for achieving the goals of Higher Education Institutions (HEIs), as highlighted by Setiawan et al. (2021). Research emphasises that investing in T&D programmes equips lecturers with the necessary skills to align teaching methods with organisational objectives (Ha et al., 2021). As traditional methods shift towards online learning, HEIs are recognising the importance of technology in facilitating flexible and effective T&D (Mahapatra & Dash, 2022). The COVID-19 pandemic has further accelerated the adoption of online learning (more specifically in using the Learner Management Systems [LMS] in education, meeting the evolving learning needs of HEIs worldwide (Egielewa et al., 2022). This paper aims

to analyse the challenges and support factors required to ensure the success of using the LMS for T&D programmes for lecturers while overcoming time and budget constraints.

2. PROBLEM STATEMENT

Criterion 3 of the Centre for Higher Education (CHE) emphasises the need for opportunities to enhance competencies and support professional growth and development of academic staff (CHE, 2004). However, challenges such as a substantial number of lecturing staff, high turnover, time constraints, and decreasing budgets hinder traditional T&D (University of South Africa, 2020). Traditional methods also have limitations, including the need for lecturers to be away from their students and low retention of learning (Abaji & Fady, 2021). Moreover, budget constraints faced by HEIs hinder the availability of online courses (Haron et al., 2019).

In South African HEIs, T&D programmes for lecturers are considered inadequate and insignificant despite their importance in maintaining quality standards and meeting accreditation requirements (Bajinath, 2010). The lack of appropriate lecturer development opportunities hinders lecturers' ability to align curricula with national needs (Schoole, 2021). The Department of Higher Education and Training (DHET) acknowledges the need to enhance lecturer quality for better post-school education and training provision (DHET, 2020). Addressing these challenges requires developing lecturers with the specific knowledge and skills required by their institutions to ensure efficiency and success (Shankar et al., 2022).

3. RESEARCH OBJECTIVE

3.1 Primary research objective

The primary research objective is to identify the key steps that need to be considered when developing a guide that will facilitate the use of the LMS for online T&D of lecturers at HEIs?

3.2 Secondary objectives

The following research objectives were formulated to guide the development of the key steps to follow when using the LMS for T&D:

- i) To identify the challenges experienced by lecturers when using LMSs.
- ii) To identify key factors influencing success in using LMSs.

4. Research Questions

4.1 Primary research question

What are the key stages that need to be considered when developing a guide that will facilitate the use of the LMS for online T&D of lecturers at HEIs?

4.2 Secondary research questions

- i) What are the challenges experienced by lecturers when using LMSs?
- ii) What key factors influence the success of using LMSs?

4. LITERATURE REVIEW

4.1 Theoretical Framework

This study used the theoretical framework to develop an online training model for lecturers: the Technological Pedagogical Content Knowledge (TPACK) model. The TPACK model was used to investigate whether lecturers (who have already been forced to start using the LMS during COVID-19) have the technological knowledge and understanding necessary to use the LMS for T&D.

Shulman introduced the concept of pedagogical content knowledge (PCK) as a vital foundation for effective instruction (Shulman, 1986). PCK integrates subject matter expertise with an understanding of its purpose. Mishra and Koehler (2007) expanded on this idea by developing the Technological Pedagogical Content Knowledge (TPACK) framework. TPACK combines technology knowledge (TK) and pedagogical content knowledge (PCK) with content knowledge (CK) and pedagogical knowledge (PK). The framework emphasises the interplay between content, pedagogy, and technology, with knowledge acquisition at the core of curriculum development. TPACK recognises the importance of integrating and recombining TK, PK, and CK within the complex teaching environment. Ongoing lecturer T&D are crucial for enhancing pedagogical skills and effectively utilising TPACK. Online SLPs can further enhance lecturers' TPACK by targeting specific technological and pedagogical knowledge areas. T&D serves as a bridge between knowledge domains, ultimately leading to more engaging and effective student learning experiences.

4.2 Learner Management System

The LMS has gained significant prominence in the field of education over the past two decades and now serves as the primary driving force for all HEIs (Abdallah et al., 2019). According to Aldiab et al. (2019), the term LMS encompasses a wide range of systems that grant administrators, lecturers, and students' access to online learning materials. Occasionally, it is also referred to as an online learning platform. LMSs constitute integral components of HEIs' course delivery systems (Turnbull et al., 2022). These are web-based software programmes designed to support various aspects of learning, instruction, and assessment. Ghilay (2019:4) offers a concise definition, describing the LMS as a "web-based platform created for managing, documenting, reporting, monitoring, and delivering courses." Notable examples of LMSs include Blackboard Learn, Moodle, Google Classroom, Sakai and Adobe Captivate, as highlighted by Mhlanga et al. (2022).

In today's educational landscape, HEIs increasingly rely on LMSs to effectively oversee and deliver online course content (Lin & Gao, 2020). HEIs can choose an LMS by either outsourcing their requirements to external vendors, as exemplified by Canvas, or by customising open-source solutions like Moodle. Open-source LMSs offer advantages, as they utilise freely available software that institutions can tailor to their specific needs, thus eliminating ongoing licensing fees (Chakrabarty & Singh, 2023).

The Learning Management System provides lecturers with an online platform that facilitates the T&L process (Bradley, 2021). Likewise, Emerson and Berge (2018) note that the LMS, already

widely adopted by HEIs, can assist in the T&D of lecturers. However, as emphasised by Hartini et al. (2021), the integration of T&D with the LMS must be carried out with precision to ensure its effective and efficient utilisation. The LMS comprises a set of applications designed for the tracking, distribution, reporting, and management of instructional materials, as well as for monitoring performance and interactions.

Alduraywish et al. (2022) contend that when instructors are encouraged to engage in online T&D through a user-friendly LMS, it not only aligns with their needs but also results in their effective utilisation of LMS features. Khoa et al. (2020) highlight that by employing the LMS for T&D, instructors can gain insights into the LMS functions from a student's perspective. Despite the LMS's numerous capabilities that can positively influence training and development, comprehending the challenges faced by instructors is essential for the development of an effective online training model tailored to HEIs.

Challenges when using the Learner Management Systems

Mpungose (2020) points out that numerous challenges are hindering the complete adoption of the LMS by lecturers in South African HEIs. These obstacles encompass a deficiency in digital literacy among lecturers, limited incentives for innovative teaching and learning, and the necessity to formulate effective and pedagogically advanced online course models (Mamvuto, 2021). Nevertheless, it is worth noting that even in more advanced nations, HEIs grapple with LMS utilisation challenges (Ja'ashan, 2020).

In a study conducted by Almaiah et al. (2020), four essential categories of challenges were identified, which encompassed technological, individual, cultural, and course related. In another study by Islam et al. (2015), a broader spectrum of challenges, totalling five categories, was outlined, encompassing challenges related to learning styles, culture, online pedagogy, technical training, technology, and time management. Additional challenges, as highlighted by various authors, encompass issues such as network instability, signal problems, deficiencies in information technology (IT) infrastructure, and concerns related to platform security (Assapari, 2021; Tauhidah et al., 2021).

Furthermore, Dhawan's study (2020) emphasises the critical necessity of a robust IT infrastructure for successful online learning, underlining the need for infrastructure to be sufficiently robust to ensure uninterrupted service delivery. Additionally, a study by Chatterjee et al. (2020) underscores the direct impact of infrastructure on how users can access and engage with a system, thus underscoring the crucial importance of addressing challenges related to infrastructure.

Moreover, there are challenges associated with new technology, ranging from issues like downloading errors, installation difficulties, password problems, to video and audio challenges, among others. Content-specific challenges, the need for online skills, and lecturer motivation are additional hurdles in the realm of online learning, as observed by Sharma & Shree (2023) and Aldosari et al. (2022). Dealing with the content uploaded on the LMS, comprehending it, effective time management, and ensuring the quality of trainers are further complexities associated with

online learning. Several studies have identified challenges such as time constraints, inadequate training, and insufficient support (Cooke, 2022).

Dhawan (2020) contends that at times, individuals find online learning unengaging and monotonous, particularly when they are accustomed to two-way communication prevalent in face-to-face lectures. Consequently, crafting engaging content that not only captivates lecturers but also effectively covers the curriculum can pose a significant challenge (Putri et al., 2020).

As stated by Dlalisa and Govender (2020), one of the most challenging aspects is the necessity for lecturers to transition from their traditional role of delivering oral information to becoming online instructors. Some perceive this transition to using LMS for teaching as occurring prematurely, raising questions about the overall preparedness globally (Abante et al., 2021; Assapari, 2021). Anichini et al. (2023) further contribute that some instructors prefer traditional teaching methods, such as lectures, textbooks, and paper-based assessments, over digital tools.

Aboagye et al. (2020) emphasised the importance of adequately preparing and educating lecturers in utilising LMSs. Research conducted by Martin et al. (2019) revealed that lecturers new to LMSs expressed a sense of unpreparedness in conducting online teaching. They expressed a need for both technical and pedagogical support, along with strategies for effective time management. Sunarto (2021) contends that, regardless of preparation levels, the significance of online learning makes it a necessity. Thus, the readiness and willingness of lecturers become essential for the success of online learning (Junus et al., 2021). Furthermore, Dhawan (2020) adds that HEIs must be well-prepared to adapt to technological changes and swiftly acclimate to using LMSs. In summary, Serrano et al. (2019) stress the importance of considering lecturers' preparedness, technological comfort, and proficiency levels when implementing LMSs to ensure effective engagement and favourable learning outcomes.

Makgato (2019) adds that the resistance exhibited by lecturers towards digitalisation is also a notable challenge. Additionally, Govender and Mpungose (2022) highlight that when some HEIs opt to switch to a new LMS after lecturers have already become proficient in the previous system, it can result in frustration and resistance to change among staff members.

4.3 Key support factors that influence the success of using Learner Management Systems

Providing HEIs with LMSs alone does not guarantee success, as highlighted by Mhlanga et al. (2022). Dhawan (2020) emphasises the need for comprehensive support to ensure effective LMS implementation. Support, in this context, includes measures to maintain LMS services at an acceptable level for HEIs and can be provided by either the vendor or the institution, as noted by Turnbull et al. (2022). The absence of institutional support is a significant barrier to successful LMS implementation (Al-Adwan et al., 2021). LMSs are complex learning environments, requiring continuous support for effective use (Turnbull et al., 2022). Several key support factors include:

Technical support: Ensuring that lecturers have access to technical support when facing challenges is vital (Mohammadi et al., 2021). Technical support is crucial for effective LMS utilisation. A lack

of technical support not only hinders LMS adoption but also limits the utilisation of its features, as noted by Alduraywish et al. (2022).

IT resources: Providing high-quality, tailored online IT resources can enhance lecturers' performance through the LMS (Alduraywish et al., 2022). Internal resources, administrative system monitoring, and continuous improvement strategies are pivotal in LMS implementation success (Turnbull et al., 2019).

High-level computer skills of IT staff: IT staff with advanced computer skills can provide enhanced support, improving service quality and effective LMS use (Alduraywish et al., 2022). Service quality includes aspects like responsiveness and availability, contributing to lecturer satisfaction (Doyle, 2021). Insufficient high-level computer skills among IT staff can negatively impact LMS utilisation for T&D.

T&D programmes: Implementing appropriate T&D programmes is essential for enhancing lecturers' skills (Albrahim, 2020). Adequately trained lecturers exhibit confidence and competence when using technology. Experienced lecturers may benefit from training in instructional design, online pedagogy, and technical skills, while newcomers may require training in advanced technical knowledge and sophisticated online interaction design (Redmond & Lock, 2019). Ongoing training and periodic programme evaluation are crucial to meet lecturers' evolving needs (Zahari et al., 2020).

Top management support: Top management support is indispensable throughout the LMS implementation process (Naylor & Nyanjom, 2021). Management must provide the necessary resources, support, and training for successful LMS implementation. Their support fosters understanding and encouragement among lecturers regarding LMS utilisation. Creating awareness about the LMS is also a responsibility of top management (Alduraywish et al., 2022).

Peer support: Peer support influences colleagues' motivation and willingness to use the LMS (Mansor et al., 2020). Those with more experience often positively influence those with less experience. Colleagues or mentors can help lecturers accustomed to traditional teaching methods adapt to technology (Turnbull et al., 2019).

Time allocation for online T&D: Consideration of lecturers' workload is essential when making training programs mandatory (Phillips et al., 2021). Despite the flexibility of accessing T&D through the LMS from any location, sufficient time support is necessary to ensure the effective completion of training. Lecturers often perceive online learning as an additional task, requiring adequate time for integration into their existing responsibilities (Al Rawashdeh et al., 2021).

In conclusion, identifying and addressing support factors that affect the successful adoption of the LMS is crucial. A well-defined set of policies for LMS implementation is also essential to ensure effective administration and management. Lecturer satisfaction and successful LMS adoption depend on the level of support they receive.

5. RESEARCH METHODOLOGY

This study utilised a fully multi-mode sequential equal status research design, incorporating both qualitative and quantitative methods. Purposeful and convenience sampling strategies were

employed to select the sample for the qualitative and quantitative approaches. Convenience sampling was chosen due to limitations in time and resources, particularly for exploratory research questions. Purposeful sampling was used to select participants with specific characteristics or experiences relevant to the research objectives, allowing for in-depth insights into lecturers' utilisation of online platforms and, specifically, the LMS.

The qualitative approach of the study involved eight experts from Centres for Teaching and Learning (CTL) at South African HEIs who have experience in guiding lecturers in using the LMS for Teaching and Learning (T&L). The quantitative approach included a sample of 200 lecturers, with a response rate of 62.50% (125 responses). Online interviews conducted via Zoom were used as the research instrument for the qualitative approach, while an online survey was employed for the quantitative approach. The qualitative data were analysed by extracting themes, categories, and sub-categories, while the quantitative data were analysed using SPSS version 27.

6. ETHICAL CONSIDERATIONS

All participants were briefed on the study's goals and intentions before the interview. They were informed that their participation was voluntary and that they could withdraw from the study at any given time should they feel the need to do so. An ethical clearance was obtained from the EMS-REC at NWU (ethical clearance number: NWU-01285-21-A4) before the collection of data for both phases. All information was kept confidential and anonymous as no names were used in the reporting of the data.

7. LIMITATIONS

The sample size for the qualitative and quantitative study was relatively small, which could limit the generalisability of the findings. The study only included eight experienced CTL individuals and 200 lecturers, who were selected using convenience sampling. This could have resulted in a narrower range of perspectives being represented in the data, which may limit the applicability of the findings. Possible lack of objectivity among the eight participants selected for the qualitative phase. The participants' views and experiences may be influenced by their individual biases or experiences within their respective institutions, which may limit the generalisability of the findings to other HEIs.

8. RESULTS AND DISCUSSION

The OSD model for lecturer T&D is based on the findings from the qualitative and quantitative studies.

Based on the study findings it is evident that most lecturers required quick training on how to use the LMS during COVID-19, indicating a readiness to use the platform for T&L and ultimately for T&D. However, the findings also indicate that many lecturers face challenges when using the LMS, even if they have prior experience with it. The TPACK model means that effective teaching requires knowledge of three main areas: content, pedagogy, and technology. In addition, the findings indicate that lecturers need more support and training to enhance their technical

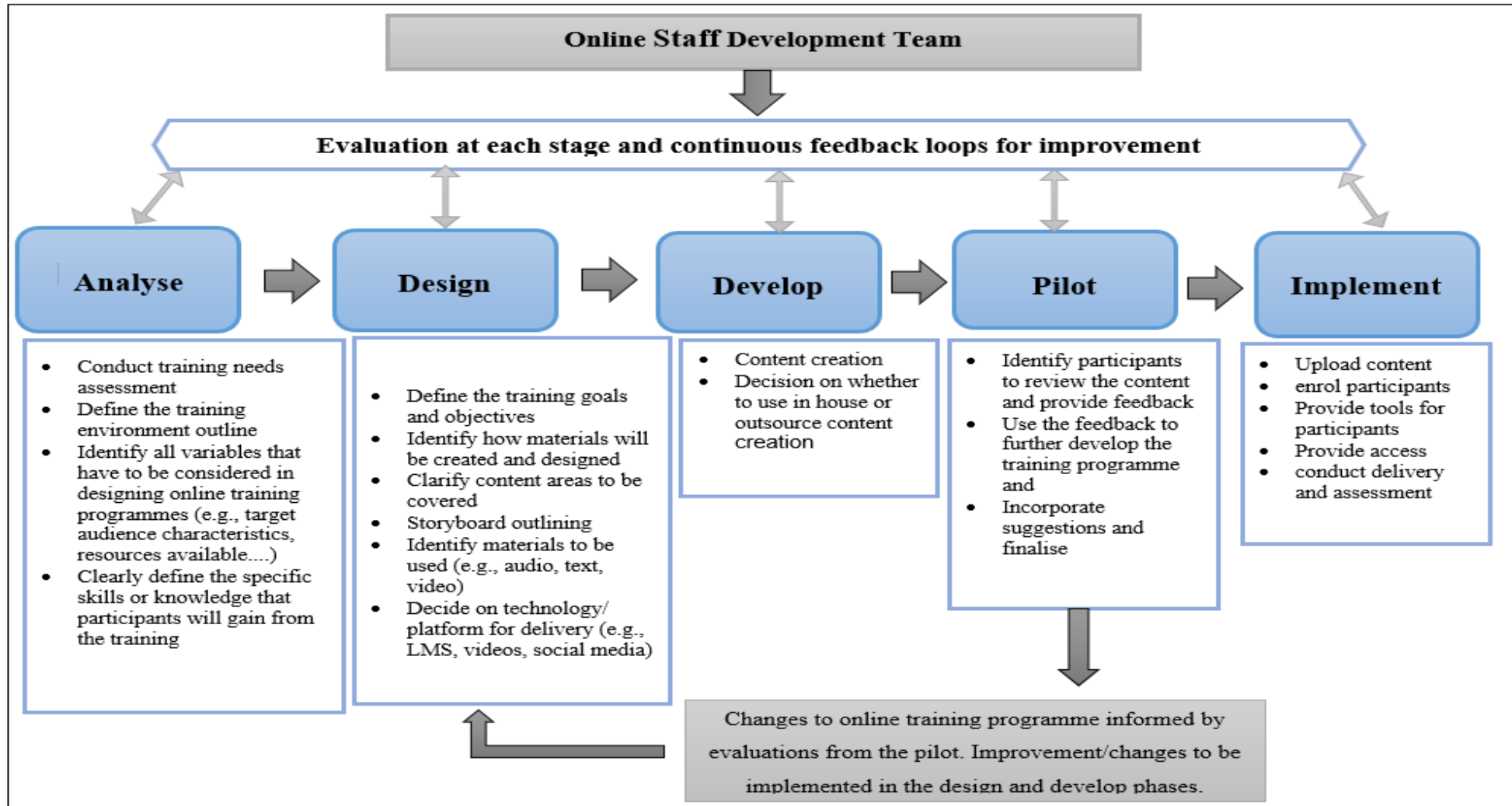
knowledge and skills to ensure an effective online T&D. From the findings, a guide for the OSD model (see Figure 2) for lecturers was developed.

The OSD is an LMS platform that offers numerous benefits for lecturer T&D in HEIs, some of which are:

- It will allow for a consistent and standardised approach to T&D, ensuring that all lecturers receive the same quality of training regardless of their location, seniority, or department.
- It will be cost-effective as it eliminates the need for external training providers.
- It will reduce the cost of travel and accommodation for lecturers attending off-site training sessions; and
- It will enable lecturers to access T&D opportunities at their own pace and convenience, thereby minimising disruption to their teaching.

The OSD platform is a practical and efficient way for HEIs to enhance lecturers' skills and knowledge, leading to improved student learning outcomes and institutional performance. The TPACK framework plays a significant role in shaping the OSD platform for lecturers. By incorporating the TPACK framework, the OSD model can design T&D activities that help lecturers develop their TPACK knowledge and skills. This includes effectively using digital technologies in teaching and integrating them into their existing content and pedagogical knowledge. By grounding the T&D of lecturers in the TPACK framework, the OSD model ensures a comprehensive understanding of content, pedagogical strategies, and the effective use of technology to support T&L.

Figure 2: Online staff development model (Researcher's creation)



The OSD model depicted in Figure 1 is discussed below.

8.1 Proposed online staff development team and roles.

Obtaining commitment and support from key individuals is vital to successfully implementing the OSD model (Evans *et al.*, 2019; Philipsen *et al.*, 2019). A core team known as the OSD team (See Figure 2) must be formed to successfully implement the proposed OSD model within the HEI. It is important to note that the size of the team will also depend on the size and requirements of the HEI.

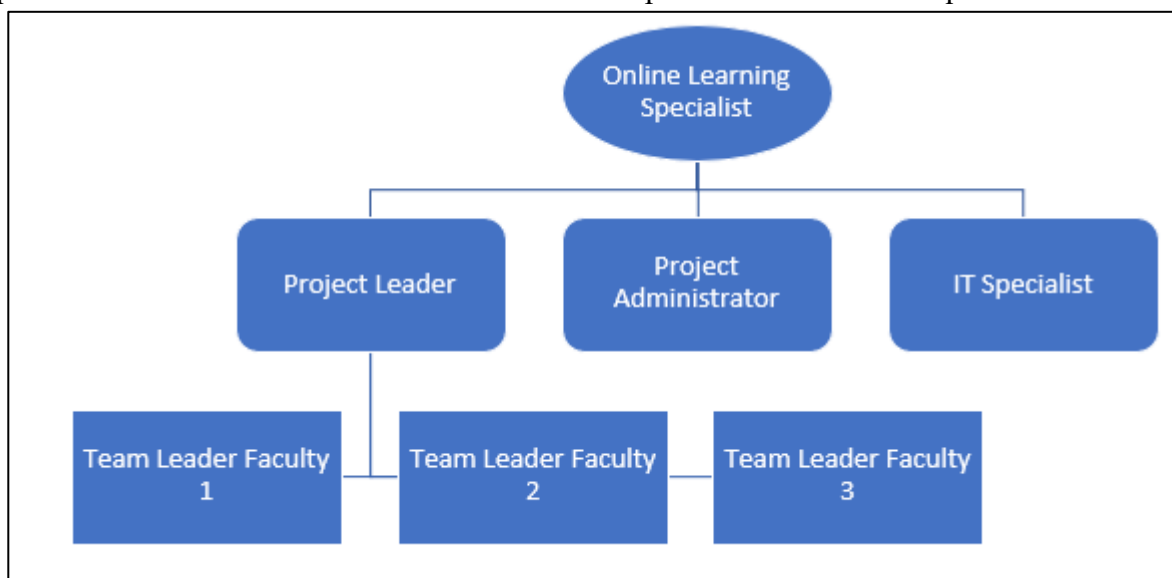


Figure 2: Organogram for the proposed OSD team (Source: Researcher's creation)

As can be seen in Figure 2, the OSD model will be overseen by an online learning specialist (OLS). The OLS should be an individual who can use the LMS effectively, possess strong pedagogical skills, and clearly comprehend academic dynamics (Martin *et al.*, 2019; Alduraywish *et al.*, 2022). A project leader will oversee the project to ensure the OSD model's success. A project manager is essential for a project as they are responsible for planning, executing, and closing projects successfully, ensuring that projects are completed on time, within budget, and meet the requirements and expectations of stakeholders. They also manage project teams, resources, and risk mitigation strategies, ensuring the project runs smoothly and achieves its objectives (Podgórska & Pichlak, 2019).

IT experts will form part of the team to provide the necessary IT support and knowledge required to implement the OSD model (Qazi *et al.*, 2021). Once the OSD model is set up, team leaders (one from each faculty or depending on the faculty size) will adopt many responsibilities while delegating, directing tasks, and implementing action plans to lecturers within the faculty they oversee. A project administrator will oversee all administrative responsibilities of the project. Ideally, the project administrator is selected from the HR department and possesses the knowledge and experience to embrace the role (Pappas, 2019) fully.

Once the OSD team is set up, five stages are recommended to ensure the success of the implementation of the OSD model, as seen in Figure 1. The stages are: stage 1: analyse; stage 2: design; stage 3: develop; stage 4: pilot and stage 5: implementation. The researcher will work with

the OSD team during all five stages to ensure the success of the OSD model. Each stage is explained below.

8.2 First stage: Analyse

The initial stage of developing an effective OSD platform for lecturers involves conducting an analysis to identify training needs, define the training environment, and specify desired skills and knowledge. The Training Needs Analysis (TNA) plays a crucial role in identifying information and skill gaps for enhancing teaching abilities (Jonnalagadda et al., 2022). The analysis stage includes defining the training environment, considering variables, designing the program, and aligning learning outcomes with lecturers' needs and institutional goals. This stage establishes the foundation for designing a high-quality OSD platform tailored to lecturers' specific needs (Körner et al., 2022).

8.2.1 Training plan

Once the TNA is conducted, it is crucial to develop a training plan for lecturers. It is essential to set plans based on the institution's goals and the individual's key performance indicators (KPIs). The significance of KPIs was also highlighted by participants in the qualitative study conducted during Phase 1. Specific responses are:

- Participant 2 noted, "*Also, I think factoring in your KPIs, when a lecturer or an academic staff member is given KPIs, that member may take T&D more seriously*".
- Participant 6 pointed out: "*...KPIs is another aspect of ensuring training is completed...*".

The groups of lecturers who require training, at what points in their employment and in what format can be plotted onto the training plan. The training plan works with the TNA, and the level of prioritisation indicates how soon the training must start. The more requests for an SLP indicate the prioritisation level where 1= high and 3= low.

8.3 Second stage: Design

The design stage is the second step in implementing the OSD model. It involves several key steps, including defining training goals and objectives, determining how materials will be created and designed, clarifying content areas, creating a storyboard, and selecting appropriate technology infrastructure (Hajati & Amaliah, 2022). The training goals and objectives should be specific, measurable, achievable, relevant, and time-bound (SMART) and align with lecturers' needs and institutional goals (Spatioti *et al.*, 2022). Designing materials involves considering principles of instructional design and adult learning theory. Content areas should be based on the TNA conducted in the analysis stage. Creating a storyboard helps outline the sequence of SLPs and activities, and selecting suitable materials and technology infrastructure ensures the effective delivery of the T&D programme within the existing T&L (Neto et al., 2021).

8.4 Stage 3: Develop

The third stage of the OSD process involves developing the content for T&D. This stage requires creating materials, such as text, images, videos, or audio, for delivering the T&D programme to lecturers. The decision to create content in-house or outsource it to a third party depends on various factors as discussed below.

Budget considerations suggest that in-house content creation is cost-effective if the institution has the necessary resources and expertise (Sandars, 2021). Expertise availability is another important factor, as in-house creation is feasible when the institution possesses the required skills, but outsourcing may be preferred if expertise is lacking (Kim & Jung, 2022). Timeframe requirements may favour outsourcing if content needs to be created quickly, while an in-house team may have other responsibilities that could slow down the process (Zhang et al., 2021). Control over the content creation process is a consideration, with in-house creation offering greater control and alignment with the institution's vision (Mandernach et al., 2021). Ultimately, the decision to use in-house or outsource content creation depends on specific needs and available resources. The OSD team and researchers carefully weigh the advantages and disadvantages of each option before deciding.

8.5 Fourth stage: Pilot phase

The fourth stage of the OSD model is the pilot phase. In this stage, a small group of lecturers is selected to test the content on the LMS before its launch to a larger audience. The pilot stage involves identifying lecturers from each faculty, reviewing the content, collecting feedback through surveys or interviews, further developing the training programme based on the feedback, and finalising the content by incorporating suggestions. The OSD team ensures the accuracy, relevance, and alignment of the content with learning objectives before launching it. This pilot phase allows for identifying and addressing any issues or areas for improvement before the full-scale implementation of the OSD platform.

8.6 Fifth stage: Implementation

The fifth stage of the OSD model is the implementation stage, which involves uploading the content onto the OSD platform, enrolling lecturers, providing access and tools, and conducting delivery and assessment. The steps include uploading the final version of the SLP, enrolling lecturers, providing tools and instructions, ensuring access to the T&D programme, and conducting delivery and assessment. HEIs should monitor the implementation stage to ensure smooth operations and make any necessary adjustments.

9. RECOMMENDATION

Ongoing support for using the LMS: To support lecturers in utilising the LMS effectively within the OSD model, comprehensive training and ongoing professional development should be provided. Short instructional videos on the OSD platform can offer continuous training, and regular assessment of training effectiveness through feedback surveys or assessments gathered via the OSD platform is crucial. Avoiding quick training sessions ensures adequate preparation and prevents frustration among lecturers.

Develop a comprehensive online T&D strategy: To ensure effective T&D for all lecturers, the OSD team should create a comprehensive online strategy that addresses individual needs. This strategy should encompass a range of learning resources, including video lectures, webinars, quizzes, and discussion forums, to accommodate different learning styles. SLPs should be designed, with content delivered in easily digestible, micro-sized information. Flexibility and ample time for completing SLPs should be incorporated into the training and development strategy.

KPIs: By implementing KPIs within the OSD model, institutions can promote active engagement among lecturers. Measurable KPIs, such as SLP completion, participation rates, and application of acquired skills, allow for monitoring engagement, evaluating training effectiveness, and enhancing professional development opportunities. Regular tracking and assessment of these KPIs enable efficient resource allocation and improve the overall quality of the OSD platform.

Technical support: is crucial for the successful utilisation of the OSD platform. HEIs should invest in skilled computer staff who can aid lecturers using the platform, with regular training to stay updated with LMS technology advancements. Establishing a help desk or support center and promoting collaboration between lecturers and technical staff for knowledge sharing further enhances the quality of the OSD platform.

Top management support for online T&D: Top management support for the OSD platform involves allocating resources, establishing a supportive organisational culture, and communicating the importance of online T&D. This includes encouraging lecturer participation in SLPs and promoting knowledge sharing among peers. By providing support and creating a conducive environment, top management can enhance the effectiveness of the OSD platform.

10. CONCLUSION

The OSD model offers an innovative and cost-effective approach for HEIs to enhance lecturers' pedagogical skills through tailored SLPs. By conducting comprehensive research and utilising internal subject matter experts, HEIs can address lecturers' challenges, support needs and effectively utilise the LMS. This fosters a culture of continuous professional development, empowers lecturers to stay updated with emerging trends, and revolutionises the enhancement of pedagogical skills within HEIs.

REFERENCES

- Abaji, R. & Fady, A. (2021). E-Learning and the COVID-19 pandemic: A case study of Lebanese universities. *Journal of Taibah University for Science*, 15: 60-69. [https://doi.org/10.1080/16583655.\(2020\).1865913](https://doi.org/10.1080/16583655.(2020).1865913).
- Abante, A., Cruz, R., Guevarra, D., Lanada, M.I.B., Macale, M.J.S., Roque, M., Cabrera, W.C. (2021). A comparative analysis on the challenges of online learning modality and modular learning modality: A basis for training program. *International Journal of Multidisciplinary Research and Analysis*, 4(04): 463-476.

- Abdallah, N.A., Ahlan, A.R. & Abdullah, O.A. (2019). The role of quality factors on learning management systems adoption from instructors' perspectives. *The Online Journal of Distance Education and e-Learning*, 7(2): 133.
- Aboagye, E., Yawson, J.A. & Appiah, K.N. (2020). COVID-19 and e-Learning: The challenges of students in tertiary institutions, *Social Education Research*, 2: 109–115.
- Aldosari, A. M., Eid, H. F., & Chen, Y. P. P. (2022). A proposed strategy based on instructional design models through an LMS to develop online learning in higher education considering the lockdown period of the COVID-19 pandemic. *Sustainability*, 14(13): 7843.
- Al-Adwan, A.S., Albelbisi, N.A., Hujran, O., Al-Rahmi, W.M. & Alkhalifah, A. (2021). Developing a holistic success model for sustainable e-learning: A structural equation modeling approach. *Sustainability*, 13(16): 9453.
- Albrahim, F.A. (2020). Online teaching skills and competencies. *Turkish Online Journal of Educational Technology-TOJET*, 19: 9-20.
- Aldiab, A., Chowdhury, H., Kootsookos, A., Alam, F. & Allhibi, H. (2019). Utilization of Learning Management Systems (LMSs) in higher education systems: A case review for Saudi Arabia. *Energy Procedia*, 160: 731-737.
- Alduraywish, Y., Patsavellas, J. & Salonitis, K. (2022). Critical success factors for improving learning management systems diffusion in KSA HEIs: An ISM approach. *Education and Information Technologies*, 27: 1105-1131. <https://doi.org/10.1007/s10639-021-10621-0>.
- Almaiah, M.A., Al-Khasawneh, A. & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the E-learning system usage during COVID-19 pandemic. *Education and Information Technologies*, 25(6): 5261-5280.
- Al Rawashdeh, A.Z., Mohammed, E.Y., Al Arab, A.R., Alara, M. & Al-Rawashdeh, B. (2021). Advantages and disadvantages of using e-learning in university education: Analyzing students' perspectives. *Electronic Journal of e-Learning*, 19(3): 107-117.
- Anichini, A., Nardi, A., Bartolini, R. & Pestellini, F. (2023). Digital and paper reading and writing at school: Students' voice from an Italian school. In *INTED2023 Proceedings*. 3441-3451. 10.21125/inted.2023.0935 (Date of access 19 October 2022).
- Assapari, M.M. (2021). The challenges of teaching EFL for adult learners: online learning during the COVID-19 pandemic. *Jurnal Ilmiah STBA*, 7: 11-28.
- Bajjnath, W. (2010). *Success and failure in the higher education under the spotlight in UNISA wise*. Paper presented at the Transformation Winter 2010.
- Bradley, V.M. (2021). Learning Management System (LMS) use with online instruction. *International Journal of Technology in Education (IJTE)*, 4:68-92.
- Chakrabarty, A., & Singh, A. K. (2023). Strategic reforms in the higher education research ecosystem in India. *Higher Education for the Future*, 10: 86-109.

- Chatterjee, P., Bose, R. & Roy, S. (2020). A Review on architecture of secured cloud-based Learning Management System. *Journal of Xidian University*, 14(7): 365-376.
- CHE. (2004). *Criteria for programme accreditation* <http://www.che.ac.za> (Date of access: 5 May 2020).
- Cooke, G. (2022). *Online learning vs face to face training*. <https://www.elucidat.com/blog/online-learning-vs-face-to-face-learning/> (Date of access: 16 August 2022).
- Department of Higher Education and Training (DHET). (2020). *Revised strategic plan 2020/2025*. <https://www.dhet.gov.za/SiteAssets/Planing2CPolicy%20and%20Strategy/DHET%20Revised%202020-2025%20Strat%20Plan%20.pdf> (Date of access: 29 May 2023).
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49: 5-22.
- Dlalisa, S.F. & Govender, D.W. (2020). Challenges of acceptance and usage of a learning management system amongst academics. *International Journal of Ebusiness and E-government Studies*, 12: 63-78.
- Doyle, A. (2021). Important skills for information technology (IT) jobs. <https://www.thebalancecareers.com/list-of-information-technology-it-skills-2062410> (Date of access: 16 August 2022).
- Egielewa, P., Idogho, P.O., Iyalomhe, F.O. & Cirella, G.T. (2022). COVID-19 and digitized education: Analysis of online learning in Nigerian higher education. *E-learning and Digital Media*, 19: 19-35.
- Emerson, L.C. & Berge, Z.L. (2018). *Microlearning: Knowledge management applications and competency-based training in the workplace*. UMBC Faculty Collection.
- Evans, J. C., Yip, H., Chan, K., Armatas, C. & Tse, A. (2019). Blended learning in higher education: professional development in a Hong Kong university. *Higher Education Research & Development*, 1–14. doi:10.1080/07294360. (2019).1685943.
- Ghilay, Y. (2019). Effectiveness of learning management systems in higher education: Views of lecturers with different levels of activity in LMSs. *Journal of Online Higher Education*, 3(2): 29-50.
- Govender, R. & Mpungose, C. (2022). Lecturers' technostress at a South African university in the context of coronavirus (COVID-19). *Cogent Education*, 9: 2125205.
- Ha, H.T., Pham, A.T., Nguyen, H.T. & Duong, H.T. (2021). Training pedagogical skills: evaluation of lecturers and teacher training students at educational universities in Vietnam. *EURASIA Journal of Mathematics, Science and Technology Education*, 17(12): em2054.

- Hajati, K. & Amaliah, N. (2022). Teacher's delivery format and ADDIE Model to adjust the online learning system during the pandemic period. *Indonesian Research Journal in Education*, 6: 91-104.
- Haron, H., Yusof, A.R.M., Samad, H., Ismail, N., Juanita, A. & Yusof, H. (2019). The platform of MOOC (Massive Open Online Course) on open learning: Issues and challenges. *International Journal of Modern Education*, 1(3): 1-09.
- Hartini, S., Bhakti, C.P., Kurniawan, S.J. & Fitri, P.N. (2021). *Online Teacher Training Design Based on Learning Management System For TPACK*. In. BICED (2020): Proceedings of the 2nd EAI Bukittinggi International Conference on Education, BICED (2020), 14 September, (2020), Bukittinggi, West Sumatera, Indonesia. *European Alliance for Innovation*. p 50.
- Ja'ashan, M.M. (2020). The challenges and prospects of using e-learning among EFL students in Bisha University. *Arab World English Journal*, 11: 124-137.
- Junus, K., Santoso, H.B., Putra, P.O.H., Gandhi, A. & Siswantining, T. (2021). Lecturer readiness for online classes during the pandemic: A survey research. *Education sciences*, 11(3): 139-153.
- Jonnalagadda, R., Singh, P., Gogineni, A., Reddy, R.R. & Reddy, H.B. (2022). Developing, implementing and evaluating training for online graduate teaching assistants based on Addie Model. *Asian Journal of Education and Social Studies*, 28: 1-10.
- Khoa, B. T., Ha, N. M., Nguyen, T. V. H. & Bich, N. H. (2020). Lecturers' adoption to use the online learning management system (LMS): Empirical evidence from TAM2 model for Vietnam. Ho Chi Minh City. *Open University Journal of Science-Economics and Business Administration*, 10(1): 3-17.
- Kim, M.J. & Jung, I. (2022). Exploring key factors affecting the selection of e-learning content development models: A conjoint analysis approach. *Educational Technology Research and Development*, 70: 203-221. doi: 10.1007/s11423-021-10019-9.
- Körner, M.F., Sedlmeir, J., Weibelzahl, M., Fridgen, G., Heine, M. & Neumann, C. (2022). Systemic risks in electricity systems: A perspective on the potential of digital technologies. *Energy Policy*, 164:112901.
- Lin, X.A. & Gao, L. (2020). Students' sense of community and perspectives of taking synchronous and asynchronous online courses. *Asian Journal of Distance Education*, 15(1): 169-179.
- Mahapatra, G.P. & Dash, S. (2022). Round table: Talent development in a changing world of work. *IIMB Management Review*, 34: 83-91.
- Makgato, M. (2019). How lecturers neutralize resistance to the implementation of learning management systems in higher educational institutions. *TechTrends*, 63(6), 643-6531.
- Mamvuto, A. (2021). Interfacing artistic freedom, censorship, and pedagogy: An interview with artist-teacher Chikonzero Chazunguza. *Visual Arts Research*, 47(2), 89-101.

- Mandernach, B.J., Semko, K.N. & Babson, J. (2021). Examining the critical success factors for faculty development in online teaching: An exploratory study. *Journal of Educators Online*, 18: 1-19.
- Mansor, N.A., Abdullah, N. & Abd Rahman, H. (2020). Towards electronic learning features in education 4.0 environment: Literature study. *Journal of Electrical Engineering and Computer Science*, 19: 442.
- Martin, F., Budhrani, K., Kumar, S. & Ritzhaupt, A. (2019). Award-winning faculty online teaching practices: Roles and competencies. *Online Learning*, 23: 184-205.
- Mhlanga, D., Denhere, V. & Moloi, T. (2022). COVID-19 and the key digital transformation lessons for higher education institutions in South Africa. *Education Sciences*, 12(7): 464.
- Mishra, P. & Koehler, M.J. (2007). *Technological pedagogical content knowledge (TPCK): Confronting the wicked problems of teaching with technology*. In. Society for Information Technology & Teacher Education International Conference. Association for the Advancement of Computing in Education (AACE). pp. 2214-2226.
- Mohammadi, M.K., Mohibbi, A.A. & Hedayati, M.H. (2021). Investigating the challenges and factors influencing the use of the learning management system during the COVID-19 pandemic in Afghanistan. *Education and Information Technologies*, 26: 5165-5198.
- Mpungose, C.B. (2020). Is Moodle or WhatsApp the preferred e-learning platform at a South African university? First-year students' experiences. *Education and information technologies*, 25(2): 927-941.
- Neto, J., Nolan, S. & Mendes, A. (2021) Planning and developing courses in distance learning environments: A training course for HiEdTec Project. *In Proceedings of the 22nd International Conference on Computer Systems and Technologies*, 201-206.
- Naylor, D. & Nyanjom, J. (2021). Educators' emotions involved in the transition to online teaching in higher education. *Higher Education Research & Development*, 40(6): 1236-1250.
- Pappas, C. (2019). *10 Essential LMS admin job duties and implementation tasks*. <https://elearningindustry.com/lms-admin-job-duties-implementation-tasks> (Date of access: 24 September 2022).
- Phillips, L.G., Cain, M., Ritchie, J., Campbell, C., Davis, S., Brock, C., Burke, G., Coleman, K. & Joosa, E. (2021). Surveying and resonating with teacher concerns during COVID-19 pandemic. *Teachers and Teaching*, 1-18.
- Philipsen, B., Tondeur, J., Pareja Roblin, N., Vanslambrouck, S. & Zhu, C. (2019). Improving teacher professional development for online and blended learning: A systematic meta-aggregative review. *Education Tech Research Dev* 67: 1145–1174. <https://doi.org/10.1007/s11423-019-09645-8>.

- Podgórska, M. & Pichlak, M. (2019). Analysis of project managers' leadership competencies. *International Journal of Managing Projects in Business*, 12(4). doi: [https://doi.org/10.1108/ijmpb-08-\(2018\)-0149](https://doi.org/10.1108/ijmpb-08-(2018)-0149).
- Putri, R.S., Purwanto, A., Pramono, R., Asbari, M., Wijayanti, L.M. & Hyun, C.C. (2020). Impact of the COVID-19 pandemic on online home learning: An explorative study of primary schools in Indonesia. *International Journal of Advanced Science and Technology*, 29(5): 4809-4818.
- Qazi, A., Hardaker, G., Ahmad, I.S., Darwich, M., Maitama, J.Z. & Dayani, A. (2021). The role of information & communication technology in elearning environments: A systematic review. *IEEE Access*, 9: 45539-45551.
- Redmond, P. & Lock, J. (2019). Secondary pre-service teachers' perceptions of technological pedagogical content knowledge (TPACK): What do they really think? *Australasian Journal of Educational Technology*, 35(3): 45-54.
- Sandars, J. (2021). *Cost-effective e-learning in medical education. In cost effectiveness in medical education*. Boca Raton: CRC Press.
- Schoole, T.C. (2021). Reconceptualising the professional learning of South African higher education academics to meet student, institutional and national needs. *South African Journal of Higher Education*, 35(3): 33-48.
- Serrano, D.R., Dea-Ayuela, M.A., Gonzalez-Burgos, E., Serrano-Gil, A. & Lalatsa, A. (2019). Technology-enhanced learning in higher education: How to enhance student engagement through blended learning. *European Journal of Education*, 54(2): 273-286.
- Setiawan, R., Cavaliere, L.P.L., Chowdhury, A.R., Koti, K., Mittal, P., Subramaniam, T.S. & Singh, S. (2021). *The impact of motivation on employee's productivity in the retail sector: The mediating effect of compensation benefits*. Petra Christian University.
- Shankar, J., Lai, D., Chen, S.P., Turin, T.C., Joseph, S. & Mi, E. (2022). Highly educated immigrant workers' perspectives of occupational health and safety and work conditions that challenge work safety. *International Journal of Environmental Research and Public Health*, 19(14): 8757.
- Sharma, L. & Shree, S. (2023). Exploring the online and blended modes of learning for post-COVID-19: A study of higher education institutions. *Education Sciences*, 13(2): 142.
- Shulman, L.S. (1986). Those who understand: Knowledge growth in teaching. *Educational researcher*, 15(2): 4-14.
- Spatioti, A.G., Kazanidis, I. & Pange, J. (2022). A comparative study of the ADDIE instructional design model in distance education. *Information*, 13(9): 402. doi:<https://doi.org/10.3390/info13090402>.

- Sunarto, M.J. (2021). The readiness of lecturers in online learning during the COVID-19 pandemic at the faculty of information technology and the faculty of economics and business. *International Journal of Recent Educational Research (IJORER)*, 2: 54-63.
- Tauhidah, D., Jayanti, U.N.A.D., Rahmasiwi, A., Pamungkas, R. & Saifulloh, A. (2021). Utilization of e-learning platforms by lecturers during the COVID-19 pandemic in Indonesia. *JPBI (Jurnal Pendidikan Biologi Indonesia)*, 7(3): 198-207.
- Turnbull, D., Chugh, R. & Luck, J. (2019). *Learning management systems: An overview In Tatnall A. (Ed.), Encyclopedia of Education and Information Technologie*. Cham: Springer Nature.
- Turnbull, D., Chugh, R. & Luck, J. (2022). An overview of the common elements of learning management system policies in higher education institutions. *TechTrends*, 66(5): 855-867.
- University of South Africa. (2020). *Turnover is high in South Africa's higher education sector: What could turn the tide*. <https://www.unisa.ac.za/sites/corporate/default/News-&Media/Articles/Turnover-is-high-in-South-Africa%E2%80%99s-higher-education-sector:-what-could-turn-the-tide> (Date of access: 11 April 2023).
- Zahari, A.S., Salleh, S. M. & Baniamin, R.M. (2020). Knowledge management and e-Learning in organisations. *In Journal of Physics: Conference Series*, 1529(2): 022051.
- Zhang, W., Chen, Y., Zhang, X. & Chen, S. (2021). Design and implementation of an e-learning system for continuing nursing education during the COVID-19 pandemic. *BMC Medical Education*, 21: 1-9. doi: 10.1186/s12909-021-02784-2.