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PROCEEDINGS**

Online 13-15 Oct 2021



SOCIAL SCIENCES INTERNATIONAL RESEARCH CONFERENCE

**Theme: Emerging perspectives, methodologies,
practices and theories**

Online 13 – 15 Oct 2021

Conference Proceedings 2021

**Organized and hosted by the Faculty of Economic and Management
Sciences, North-West University, South Africa**





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Preface

The Social Sciences International Research Conference (SSIRC) 2021 proceedings contain full papers submitted to the Social Sciences International Research Conference held virtually from 13 to 15 October 2021. The conference was organised and hosted by the Faculty of Economic and Management Sciences of the North-West University, South Africa.

The conference purpose was to bring together a wide audience of specialists within specific subject fields, academics, policymakers and practitioners around clearly circumscribed topics in the social sciences. The theme of the conference was “Emerging perspectives, methodologies, practices and theories”. In this regard, the aim of the conference was for participants to disseminate original research, engage in fruitful debate and facilitate mutual understanding around various emerging issues in research. It also provided an opportunity for academics and professionals with interdisciplinary/multi-disciplinary interests related to social sciences to meet and interact with individuals in a variety of disciplines.

The conference included keynote addresses by experts in their subject fields, who shared their knowledge, expertise and experiences with the conference delegates. It also included a PhD track and research workshops to postgraduate students, providing the latest developments in qualitative, and mixed-method research.

The conference solicited and attracted research submissions related to all aspects of the Social Sciences. A total of 86 full papers were submitted to the conference. All papers were first subjected to a technical review, which included determining the content similarity index using specialised software. Subsequently, 83 papers adhering to the technical guidelines and with an acceptable similarity index were double-blind peer-reviewed by reviewers drawn from the scientific committee and external experts depending on the subject matter. Following the review process, 75 full paper submissions were accepted for presentation at the conference. Of the papers accepted for presentation at the conference, 62 full papers were included in the conference proceedings.

The Organising Committee of the SSIRC would like to thank the scientific committee, subject chairs, external reviewers, session chairs and presenters for their contribution to the conference.

We trust that the conference was an insightful and fruitful experience, contributing to research inspiration.

Prof Babs Surujlal

SSIRC 2021: Editor and conference chair

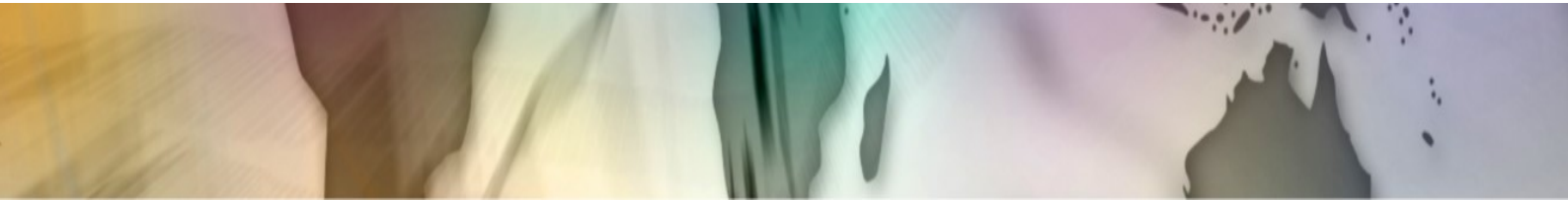
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Review process

The first call for papers went out early in February 2021, with a due date of abstract submissions by 23 March 2021. A total of 134 abstracts were submitted and abstract acceptance was communicated by 15 April. The abstracts were blind peer reviewed and completed by appointed subject chairs who are experts within their respective fields. Authors with accepted abstracts, were invited to submit a full paper with the deadline of 8 June 2021. A total of 86 full papers were received of which 3 were not acceptable according to the similarity index indicated by specialized software. The remaining 83 papers were subjected to a double blind peer review process, managed by the head of reviewers. Subject chairs within the different tracks of Business Management, Economics, Finance, Public Relations and Human Resource Management as well as Marketing, Sport and Leisure identified reviewers not known to the authors and from a different institution. Likewise, the identity or the institution of the reviewer, was not known to the authors.

A database of possible reviewers was compiled, indicating the area of expertise for reviews. Each subject chair drew from this database within their subject field or included new additions to the list of reviewers. Some of the reviewers were authors of papers. At least two anonymous reviewers reviewed each submission and where discrepancies occurred, a third reviewer was used or the head of the reviewers performed the third review. Authors received a reviewer report and attended to comments and recommendations where needed by submitting a change log when asked by reviewers. The submissions were assessed by the head of reviewers when papers were returned. In total, 62 full papers were included in the conference proceeding.



Institutional contribution

A total of 62 full papers were included in the proceedings after the double blind peer review process. The contributions of papers were received from 30 different national and international institutions which is depicted in Table 1. The host institution, NWU contributed to 34% of the full papers in the conference proceedings with 66% of the contributions by other institutions. Thus, the proceedings adhere to the DHET criteria that more than 60% of papers have to be from other institutions.

Table 1: Institutional and weighted author contributions.

| No | Institution | Weighted author units | Institutional % |
|--------------|---|-----------------------|-----------------|
| 1 | University of Johannesburg | 2.5 | 4 |
| 2 | University of Limpopo | 5 | 8 |
| 3 | Cape Peninsula University of Technology | 0.25 | 0.4 |
| 4 | Vaal University of Technology | 5.5 | 8.8 |
| 5 | North-West University | 21.375 | 34 |
| 6 | University of South Africa | 4 | 6.5 |
| 7 | University of KwaZulu-Natal | 2.25 | 3.6 |
| 8 | University of Free State | 1.5 | 2.4 |
| 9 | Central University of Technology | 2 | 3 |
| 10 | Malawi University of Business and Applied Sciences | 2 | 3 |
| 11 | Bowen University | 1.25 | 2 |
| 12 | Obafemi Awolowo University of Nigeria | 1.375 | 2.2 |
| 13 | Midlands State University, Zim | 0.5 | 0.8 |
| 14 | Great Zimbabwe University | 0.5 | 0.8 |
| 15 | Stadio | 0.5 | 0.8 |
| 16 | Bindura University of Science Education, Zim | 0.5 | 0.8 |
| 17 | Walter Sisulu University | 2 | 3.2 |
| 18 | Rhodes University | 2 | 3.2 |
| 19 | DUT | 1.25 | 2 |
| 20 | University of Fort Hare | 4 | 6.5 |
| 21 | Wageningen University and Research, The Netherlands | 0.5 | 0.8 |
| 22 | Nnamdi Azikiwe Nigeria | 0.66 | 1 |
| 23 | National Open University of Nigeria | 0.33 | 0.5 |
| 24 | University of Malawi | 0.5 | 0.8 |
| 25 | Botho University, Botswana | 0.25 | 0.4 |
| Total | | 62 | 100 |

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SSIRC 2021-002

THE EFFECTS OF URBANISATION ON THE AVAILABILITY OF MEDICINAL PLANTS (RED DATA SPECIES) IN LIMPOPO PROVINCE, SOUTH AFRICA: A LITERATURE ANALYSIS

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ABSTRACT

This study was aimed at exploring the effects of urbanisation on the availability of medicinal plants [Red data species] in the Limpopo Province of South Africa. The motivation of this study was based on scarcity of the identified medicinal plants in most of the rural areas around Limpopo Province of South Africa. Furthermore, the researchers were interested in finding out whether or not there are conservation methods implemented for sustainability of these identified Red data species. As a consequence, this escalated to exploring existing effects of urbanisation on extinct medicinal plants and those with a possibility of facing extinction, and to establish if there are any efforts made by the 'Local, Regional, Provincial and National government' to protect and preserve these plants. What is more, this study adopted qualitative research approach with interpretivist design of systematic review, focusing on exploring reports from across the globe by specifically using a region in the Limpopo Province of South Africa as a case study. Limpopo Province [Malamulele areas] was used as a case study to explore this subject. Furthermore, this study used this research design to collect qualitative documents on medicinal plants extinction and urbanisation effects. Again, the inductive Textual Content Analysis (TCA) method was used to analyse data. The TCA collates scholars' opinions, inferences, published academic journal article, dissertations and theses and reputable internet sources. The findings of this study suggest that the identified medicinal plants are negatively affected by urbanisation practices. Moreover, it is evident that few methods of medicinal plants conservation are not implemented correctly, since most of the identified medicinal plants are still scarce and some are extinct because of urbanisation. It was concluded that urbanisation is a great factor in the scarcity of medicinal plants; the relevant stakeholders in local governments should urgently address this.

Keywords: Effects of urbanisation, Interpretivist design of systematic review, Limpopo Province, Literature review analysis, Malamulele, Medicinal plants, South Africa

1. INTRODUCTION

Steenkamp (2002) expresses that human communities possess a special ability to influence the management and conservation of biodiversity, while recognising the role of humans in the ecosystem, as biodiversity plays a key role in human welfare by providing agricultural, economic, and health benefits (Zhang & Zhou, 2019). Even if people have technological ability, they should not free themselves from the bounds and imitations of the natural laws. Human destruction and neglect of biodiversity simultaneously destroy their life-giving resource base (Steenkamp, 2002). Accordingly, the conservation of biodiversity has become one of the most important challenges for humanity. However, the vast numbers of medicinal plants are destroyed (Zhang & Zhou, 2019). The conservation and management of biodiversity remain a national concern; available research mainly relates on sustainable use of natural resources to cater for human developments in many parts of the world (Stern, 2000). Moreover, resources such as medicinal plants were used and continued to be a central focus for food and other relevant purposes, as a result, good management and conservation of these species are necessary for their continued availability (Stern, 2000). Furthermore, this is still regarded as a global crisis based on medicinal plants losses. It can be selectively confirmed that habitat loss, population increase, urbanisation and threats of climate change contribute largely to the extinction of medicinal plants (Martin, 1995).

It is therefore important for responsible professionals to be well equipped with adequate skills to manage biodiversity using sustainable methods (Martin, 1995). In South Africa, local vegetations are depleted and therefore, good management and conservation of biodiversity, the quality of life of all South African medicinal plants will improve, especially in rural communities of Limpopo Province (Mabogo, 1990; Rankoana, 2000; and Rankoana, 2001). The Vhembe District Municipality Integrated Development Plan Review [VDM IDPR] (2019/20) notes that the 'biosphere reserve' is a field that accommodates the habitat of various species [those susceptible to extinction included]. Focusing on the 'Biodiversity of the Vhembe District,' the rural communities are seen as priorities and as a consequence, shelter, food, fuel and *medicinal plants* are provided. These plants [fauna and flora] are facing extinction because of uncontrolled urban development activities, which directly affect endangered species [medicinal plants included].

However, Du Toit (2015) warns that as rural populations decrease and cities expand owing to urban ecological or urbanisation, research in this field remains significant. This study attempts to fill this identified gap by arguing that urban ecology should be effectively used to bring clarity on the complex relationship between local rural human settlements and related existing ecological contexts for sustainable development. For example, species of medicinal plants are becoming scarce as urbanisation interventions increase and this may possibly lead to plant extinction. Efforts made by the rural people in Limpopo Province to promote the use of medicinal plants and access to Traditional Herbal Medicine (THM) have not yielded expected positive results, as the accessibility of THM is seen to be declining. In support to this statement, Molewa (2015) highlights that it is concerning to witness that many plant species, communities and their ecological interactions, including existing relationships between plant species and human, communities and cultures are in danger of extinction, threatened by such human-induced factors,

such as habitat loss and transformation, over-exploitation, pollution, clearing for development activities, alien invasive species, climate change and urbanisation, among others. The community people, and indigenous health practitioners no longer protect the plant species. Some plants [As indicated in Table 1 of this study] in the community are being threatened by the development of the communities and no longer have space to grow, Du Toit (2015) and Van Wyk, Oudtshorn and Gericke (2002).

Besides, the selected areas in Limpopo province have become breeding grounds for township development [Urbanisation], with more residents losing on the protection of medicinal plants. The inhabitants [Many families] of the selected rural areas are living in fear of the of the extinction of these rare plants. Therefore, they have taken measures of intervention to ensure that these plants do not extinct, in anticipation of having a significant effect on the resulting urbanisation. Furthermore, there exists a cloud of no confidence in the management of medicinal plants by the Local government [Municipalities], community leaders and community members and other relevant stakeholders to restore the protection of these plants, as effective preservation strategies seem lacking. It becomes evident that, a review of the current strategies can be of paramount importance to create awareness of the effects of urbanisation on medicinal plants, with a greater chance of extinction. Consequently, although urbanisation is touted as one of the contributory factors for medicinal plants extinction, the demographic of urban land influences the loss of local [rural] biodiversity and species. The medicinal plants and THM in the study area have continuously received just a shallow treatment. The species diversity of medicinal plants and access to THM have little been evaluated in such communities. This study contributes to the body of knowledge by identifying scarce or endangered medicinal plants in a specific rural setting, and documenting reasons for plant extinction. According to Maluleke (2016) and Maluleke (2020), the findings of this study can be disseminated to provide clarity on the existence of literature studies on this subject to enable relevant stakeholders to improve their development strategies, while strongly considering rural settings and demographics for the preservation of these plants.

2. LITERATURE REVIEW

2.1 The notable effects of urbanisation on medicinal plants

Czech, Krausman and Devers (2000) share that studies describing the effects of urbanisation on rural species richness, cited urbanisation as a major contributor to the current extinction, majority of medicinal plants nearing extinction or scarcity are reportedly caused by urban development. It is stated that urbanisation can either increase or decrease rural species richness, based on geographical settings, Czech, Krausman and Devers (2000). The plants used for health purposes become scarce and negatively affected when urban areas expand (McKinney, 2008). A study conducted by McKinney (2008) reviewed 105 types of species to determine the effects of urbanisation on [rural] species richness, guided by plants. The study established that approximately 65% showed increasing species richness, based on moderate urbanisation, with the other 35% relating to non-development attempts. Bolund and Hunhammar (1999) state that biodiversity is a key output for urban environments and developments, to actively provide for ecosystem services, such as air and water purifications. Thus, ‘urban biodiversity’ is mandated to

offer teachings on the effects of increasing urban populations, the importance of protecting nature and science conservation, involving management of rare rural medicinal plants species and consequences thereof (Miller & Hobbs, 2002).

The increase of urbanisation and conservation practices should be better understood based on challenges and effects of biodiversity (McKinney, 2008). While acknowledging the effects of urbanisation on medicinal plant extinction, the complexities surrounding the nature of urban land use and availability should be prioritised to clearly accommodate local rural biodiversity and related influences (Czech *et al.* 2002; & and McKinney, 2006).

2.2 Probable scarcity of medicinal plants

Majority of individuals residing in sub-Saharan Africa rely on plants for their primary health care (Shankar, 1998). Magoro (2008) contends that medicinal plants are touted as the largest single grouping of plants. Approximately 30 000 species fall within this group globally, about 33% are said to be trees (Shankar, 1998). From 6,377 plant species used in ‘Tropical Africa,’ about 2, 074 have medicinal applications, however, this is not only regarded as their main use, only 1, 975 are primarily used as medicinal plants rather (Magoro, 2008). Culturally, the healing and spiritual qualities of plants are adopted negatively. The work of ‘African Traditional Health Practitioners (THPs) and South Africa’s Traditional Healing Folklore (SATHF)’ have been disturbed by Western medicine practices. This area is reportedly diminishing. The THPs are finding it difficult to find medicinal plants within their immediate surroundings, these plants are under threats of overexploitation and extinction. Despite this pressing challenge, the use of medicinal plants continues to be a thriving industry across South Africa (Magoro, 2008). It is recorded that 24 medicinal plants species revealed by the THPs remain essential to their practices (Magoro, 2008). Therefore, the need to harvest medicinal plants to ensure rural sustainability should be highly considered, aided by development of strategies to effectively address existing impacts of forest harvesting. The importance of medicinal plants should be acknowledged and better understood as a distinctive epistemology, coupled with a focus on the uniqueness of local THPs. Various resources should be also geared towards preservation and protection of medicinal plants (Magoro, 2008).

2.2.1 Notable scarce medicinal plants and scientific names

Consulted literature studies on the research topic outlined the following Twenty-four scarce medicinal plants, with their respective scientific names, as depicted in Table 1.

The first four listed medicinal plants in Table 1 are reported to be facing extinction in the Limpopo Province (Malamulele selected areas included). Number five to 24 of the listed plants, although scarce, could still be available. Numbers one to four of the listed plants can be found next to streams and shallow soils, around mountains and hills in rockier areas, next to streams in cracked clay soils and around mountains and hills in rocky areas (Van Wyk *et al.*, 2002). The mentioned plants are very pivotal for curing various diseases.

Table 1: Common names of scarce medicinal plants, scientific names, parts used and diseases for curing

| Common names | Scientific names | The parts used | Diseases for curing |
|------------------------------|--------------------------------|------------------|--|
| 1. Fera | Santalaceae | Roots | Diarrhoea, sexual transmitted disease, anaemia and Hepatitis B |
| 2. Rooistrong/madi a phalane | Hyacinthaceae | Roots | Wounds, sprains, internal tumours, chest pain and kidney troubles |
| 3. Pharagobe | Anacardiaceae | Roots and leaves | Acne and eczema |
| 4. Lehlwele | Gunneraceae | Roots | Menstrual pains |
| 5. Moraroana | Asclepiadaceae | Stem | Stomachache and headaches |
| 6. Hlonya | Rubiaceae | Roots | Stomach ailments |
| 7. Batswetsi | Elephantorrhiza Elephantina | Roots | Dysentery and diarrhoea, stopping bleeding, treating intestinal disorders, haemorrhoids, heart ailments and syphilis |
| 8. Mokapoomogolo | Cussonia paniculata | Roots and twigs | Fevers, uterine pain, venereal disease, malaria, nausea |
| 9. Hlokwatsela | Dipsacaceae | Roots | Colic, heartburn, sterility and painful menstruation |
| 10. Maroke | Verbenaceae | leaves and twigs | Coughs and colds |
| 11. Morothamadi | Anacardiaceae | roots and bark | Acne and eczema |
| 12. Mohlaba-batsumi | Rhamnaceae | leaves and twigs | Dysentery, wounds and sores |
| 13. Molaka | Warbugia salutaris | Leaves | Colds, lungs and sinuses |
| 14. Mphahlašilo | Flacourtiaceae | Roots | Heart problems |
| 15. Thitidi | Hypoxis Hemerocallidea | Rootstock (Corm) | Tuberculosis and cancer |
| 16. Bjere/mokwalo | Asclepiadaceae | Roots and stem | Stomachache and headaches |
| 17. Leshogwane | Asteraceae | Roots | Stomachache and headaches |
| 18. Segwete | Scabiosa Columbania | Roots | Wounds |
| 19. Tshukane | Hyacinthaceae | Roots | Rheumatism |
| 20. Bore bja Tau | Grassulaceae | Leaves and roots | Sexually transmitted diseases |
| 21. Makgolwa | Apocynaceae | Roots | Stomach ulcers |
| 22. Matlapaneng | Myrothamnus flabeuifolius | leaves and twigs | Asthma and pains in the chest |
| 23. Leakalala | Hyacinthaceae | Roots | Wounds, sprains, internal tumours, chest pain and kidney troubles |
| 24. Senamane | Eucephalartos woodii | Stem | Chest pains |

Sources: Van Wyk, Oudtshorn and Gericke (2002).

However, they are all prone to extinction. The harvested root of these plants makes them particularly vulnerable, unseasonal harvesting is another factor that negatively affects adequate growth (Magoro, 2008). It should be noted that communal land is said to be the source of traditional medicine, however, improper harvesting methods, involving unprincipled intermediaries in the collection of these plants. As confirmed by the THPs, uprooting of plants should be regarded as the work of medicinal plants collectors (Magoro, 2008). Operationally, THPs do not uproot plants, they focus on the soil covering the roots, and they do this gently revealing their root structure and setup. Equally, this method of harvesting does not destroy the plant, the potential to grow healthy again is witnessed for future usage as well (Magoro, 2008).

Usually, only side roots are often removed, leaving the taproot untouched and allowing the plant to regenerate with ease. Optimally, roots should be harvested during flowering periods and rainy season (Magoro, 2008).

2.3 Strategic management methods to safeguard medicinal plants

Community-Based Natural Resources Management (CBNRM) are responsible for plant conservation (Moeng & Potgieter, 2011). Cunningham (1991) highlights that the availability of raw material and exploration of future development require sustainability and preservation of medicinal plants. Without a specific available practice of conserving medicinal plants, government structures are implementing conservational efforts to protect various types of natural ecosystems, such as nature reserves, wildlife sanctuaries, national parks, biosphere reserves, protection forests, recreational forests, and other types of protected areas, Cunningham (1991). However, some of these conservation methods are ineffective in other areas due to vastness and widely scattered distributions of these areas. Therefore, stricter control measures and better conservation management of these areas should be implemented (Cunningham, 1991).

Further, Cunningham (1991) indicates that conservation of medicinal plants should be directed towards protection against human disturbance. Exploitation of these plants are not directly done by industries and exporters, but sometimes by rural people with capital provided by private creditors often perform these activities. Individuals collecting and harvesting medicinal plants from the wild/forests are unaware of practices of annihilating resources that can nurture them (Cunningham, 1991). They are uneducated about the importance of these plants; they continuously exploit resources for monetary value, with insignificant future considerations. Thus, dissemination of information resources regarding efficient harvesting to avoid endangering plants and communities is essential (Cunningham, 1991). The traditional leaders, enforcing good management of plants species using sanctions, customary laws, taboo systems and effective control measures for communal compliance dominated the pre-colonial era in Africa, this colonial approach is heavily affected by urbanisation and transformation practices (Magoro, 2008). Traditional medicine and associated agricultural practices form part of important economic activities across South Africa, (Magoro, 2008), however, knowledge management by rural residents for the preservation of natural resources is largely ignored, (Posey, 2000). The sustenance of indigenous knowledge of the THPs on medicinal plants and their environments of origin should be protected. The operations of rural communities and THPs should be assured to support land tenure and management of these plants (Department of Science and Technology – DST, 2004).

Understanding of ‘modern environmental conservation strategies’ is currently unclear to many stakeholders in this sector (Mavi & Shava, 1997). The adoption of traditional methods of extracting medicines from plants by rural individuals prompted the THPs to link extinction of medicinal plants and environmental degradations to urbanisation (Manaswe, 2005). This is also supported by the ‘Rural African Traditions,’ which highlight that the botanical knowledge of plant species, ecology and scarcity is largely affected by urban developments in their respective areas (Magoro, 2008). This leads to limited knowledge about conservation of traditional medicines.

Thus, requirements of understanding the relevance of traditional ecological perspectives and related knowledge to protect threatened medicinal plant species is urgently required (Magoro, 2008).

Additionally, Mander (1997) states that the ‘Provincial levels’ consists of ‘Nature Conservation Ordinances’ which endorse strict limitations on accessibility of plants. Considerably, in 2010, South Africa, along with all Parties to the CBD, endorsed an updated version of the Global Strategy for Plant Conservation and the adoption of Decision X/17 committed Parties to: ‘Develop or update national and regional targets relevant to the Global Strategy for Plant Conservation, and, where appropriate, to incorporate them into relevant plans, programmes and initiatives, including national biodiversity strategies and action plans, and to align the further implementation of the Strategy with national and/or regional efforts to implement the Strategic Plan for Biodiversity 2011–2020’ (Molewa, 2015). An example of this is the Limpopo Environmental Management Act (No. 7 of 2003), which states: *“forbid any individual who has no permit to access the protected plants or specially protected plant in the province.”*

According to Moeng (2010), the role played by ‘Traditional Medicine Shops’ and ‘Street Vendors’ on the trade of indigenous medicinal plants in the Limpopo Province is important in developing strategies to prevent loss of these plants. Nearly 231 medicinal plants are reported to be traded at about 16 shops, about 0.96 tonnes of plant material were traded per year (Moeng, 2010). It is because of such over-harvesting practices that plant medicines are declining. For sustainability, approximately 81% of traders in the province harvest few plants in a specific location to allow species regeneration and to ensure population integrity, (Damn, 2002). About 19% of traders seem to be ignorant of plant species preservation (Moeng, 2011). For recourse, their respective environments should be managed based on the implementations of ecological principles, partnership management [Between conservation authorities, tribal authorities and local communities], permit systems, to benefit communities’ socio-economically, and sustainably (Damn. 2002).

3. RESEARCH DESIGN AND METHODOLOGY

This paper employed qualitative research approach with an interpretivist design of systematic review, focusing on exploring on reports from across the globe, by specifically using a region in the Limpopo Province of South Africa as a case study. This paper selected rural areas in Malamulele as case studies. This research design and approach ensured that the collected data were extracted from public documents, for example, newspapers, minutes of meetings or official documents and the mass media, such as reports in newspapers and magazines (Akerlof, Maibach, Fitzgerald, Cedeno & Neuman, 2013). Matthews and Ross (2010) support this by stating that “one can ask questions of documents in the same ways as one might ask questions of research participants.” This was used to find new knowledge on this subject. Gough, Oliver and Thomas (2012) and Mokwena, Motsepe, Maluleke and Shandu (2020a) and Maluleke (2020) highlight that this research design identifies, describes, appraises and synthesises available research literature ‘using systematic and explicit accountable methods. For data collection, Denscombe (2010) and Maluleke (2020a) contend that it is pivotal to review relevant documents about a specific subject.

Therefore, for this study, data were collected using secondary sources, as advised by Maluleke (2016) and Maluleke (2020), as well as Mokwena and Maluleke (2020). Overall, about Thirty-Three (33) sources were consulted as evidential documents for this systematic review study.

For sampling and procedures, the non-probability also known as purposive sampling was used to restrict documents from 1990-2020 [Not in order of importance nor sequence]. This was exploratory to establish the existing problem and provide possible solutions. For this study, the sample did not deal with specific individuals, the collected data stemmed from printed mass media reports related to the research topic and related study area. Again, content analysis (CA) was used to analyse consulted textual materials and to collect as well as classify relevant information on this subject. Bryman (2012) along with Matthews and Ross (2010) mention that to achieve CA, "... documents are something more than just a source of data, since it is possible to research documents in their own right as a 'field' of research."

4. STUDY RESULTS AND DISCUSSIONS

Data as presented in paragraph 1 and paragraph 2.1 present effects of urbanisation on the availability of medicinal plants [Red data species] in Limpopo Province (Malamulele areas), South Africa. Czech *et al.* (2000) confirm that urbanisation is a major cause of native species extinction; most of the medicinal plants that have come into extinction or are recently scarce is because of urbanisation as indicated in paragraph 2.1 of this study. McKinney (2008) in paragraph 2.1 of this study agrees that all groups of species tend to reduce in areas with extreme urbanisation where large areas of land are consumed by the expansion of urban areas. For example, this is observable in central urban core areas where medicinal plants are destroyed and not protected or preserved for future medical use. McKinney (2008) in paragraph 2.1 shows that the effects of moderate levels of urbanisation vary significantly among groups because some urban developments are done in areas that do not necessarily have many medicinal species.

In addition, Martin (1995) states that medicinal plants are becoming extinct because of habitat loss, population, urbanisation, and the threat of climate change as indicated in paragraph 1 of this study. Furthermore, Mabogo (1990) and Rankoana (2000) and Rankoana (2001) in paragraph 1 of this study share that in South Africa, much of the local vegetation is depleted due to factors of urbanisation and therefore, through good management and conservation of biodiversity or medicinal plants, the quality of life of all South Africans will improve especially in rural communities and particularly the rural areas of Limpopo Province [Malamulele areas included]. Besides, depletion of plant resources is the result of indiscriminate chopping down of medicinal plants for settlement, fence posts, building of houses, animal enclosures, ploughing fields, firewood, medicine as well as for the making of artefacts and utensils which is the results of urbanisation, Rankoana (2021).

What is more, McKinney (2008) in paragraph 2.1 of this study indicates that urbanisation can either increase or decrease species richness, based on various reasons, which includes taxonomic group, spatial scale of analysis and intensity of urbanisation. The VDM IDPR (2019) support this in paragraph 1 of this study by sharing that the district fauna and flora referred to some of

medicinal plants facing extinction based on the current uncontrolled nature of development activities in the rural setting. In paragraph 2.1, McKinney (2008) indicates that the manifestations of these plants are mostly occasionally affected by increasing urbanisation in most cases, as urbanisation increases medicinal plants are negatively affected. The expansion of urban areas resulting from erecting of building developments are also cited as contributors to these effects. The applications of landscaping and maintenance of rural areas, as well as commercial areas consists of removal of vegetation and dead wood and larger grasses and herbs, leading to the destruction of medicinal plant species. In paragraph 2.1, McKinney (2006) says that [some] aspects of urbanisation can promote increasing levels of biodiversity, affecting the conventional preservations of these rare plants, as Table 1 of this study refers.

Positively, the researchers collectively agreed in paragraph 1 that efforts made by the rural people in the Malamulele areas of Limpopo Province to promote the use of medicinal plants and access to THM have not yielded expected positive results, as the accessibility of the medicinal plants to THM are seen to be receiving attention as observed throughout this study, the World Health Organisation [WHO] (2019) reveals that between 2005 and 2018, significant progress was made in the development of national policies, laws and regulations and national programmes for Traditional and Complementary Medicine (T&CM). The region fares significantly better than the global scenario in most of the measurement indicators of T&CM, apart from regulation and registration of herbal medicines, which remain a challenge for the region. Moving forward, Mothibe and Sibanda (2019) state that the use of African Traditional Medicine (ATM) by the public will persist and keep growing. The medicinal plants/ATM play a role that cannot be completely substituted by conventional medicine; hence, the effects of urbanisation should be closely monitored in South African rural areas. Moreover, this brings with it the destruction of medicinal plants and many challenges faced in accessing THM because of urbanisation and the development of urban settlements. Plant species are no longer protected by communities nor indigenous health practitioners because the landowners have more power and control access to certain areas. Urbanisation or development of humankind plays a significant role on the negative impact of the availability of medicinal plants in various rural communities in South Africa as indicated in paragraph 1 and Table 1 of this study respectively.

As presented in paragraph 1 and paragraph 2.2 of this study, the identified medicinal plants are viewed as being scarce in South Africa [I.e. Limpopo Province]. Furthermore, Du Toit (2015) in paragraph 1 of this study warns that expansion of cities due to urbanisation, affects preservation and protection of medicinal plants, thus, future research on this subject remains pivotal. Urban ecology seeks to understand complexities surrounding relationship between human settlements and their ecological contexts to ensure sustainability of plants, to avoid scarcity and extinction. Magoro (2008) in paragraph 2.2 of this study further contends that the THPs were not able to find medicinal plants within their local surroundings, based on over-exploitation and extinction. Furthermore, Table 1 of this study confirms that there are medicinal plants that are coming to extinction and listed their scientific names, the parts of harvested and the kinds of diseases cured. Additionally, Magoro (2008) in paragraph 2.2 continues highlighting that these medicinal plants

are inherently extinction prone due to their roots being improperly harvested, and not being permitted to grow back.

What is more, data as presented in paragraph 2.3 present the strategic management methods to probably safeguard medicinal plants, as confirmed by Cunningham (1991) by highlighting that to ensure the availability of raw materials, such as medicinal plants, future developments possibilities, sustainability and preservation of these plants are very important. Cunningham (1991) further states that conserving of medicinal plants is lacking and that the implementation of conservation efforts by the national government remains important. The management methods are [not well] established in some of the rural areas because the management of protected areas is ineffective owing to the vastness and widely scattered distributions of these medicinal plants (Cunningham, 1991). The DST (2004) in paragraph 2.3 reveals that ‘indigenous knowledge’ continues to play a significant role in sustaining livelihoods of rural South Africans who use medicinal plants. Magoro (2008) in paragraph 2.3 confirms that this knowledge could be applied as a tool for the preservation and protection of medicinal plants to sustain rural economies. Thus, natural resources should be effectively managed, as stated by Steenkamp (2002) in paragraph 1 of this study who expressed that human communities have a special ability to influence management and conservation of biodiversity for ecosystem improvement.

Additionally, Stern (2000) in paragraph 1 of this study highlights that the conservation and management of biodiversity remains a national concern. Many of the natural resources, especially medicinal plants, have been used and are still used for food, health, and other purposes [As Table 1 of this study affirms]. As a result, good management and conservation of these species are necessary for their continued availability. Magoro (2008) in paragraph 2.3 of this study reveals that the ‘pre-colonial era’ was fuelled by African traditional leaders’ dominance which enforced good management of medicinal plant species through the application of sanctions, customary laws, taboo systems, and effective control systems to ensure rural communities’ compliance. However, this colonial approach forcefully removed these communities from resource management to create ‘nature reserves and parks.’ Moeng (2010) in paragraph 2.3 of this study highlights a role played by the ‘Traditional Medicine Shops and Street Vendors’ on the trade of indigenous medicinal plants in the Limpopo Province, thus strategies that will prevent further loss of medicinal plants should be developed. In paragraph 1 of this study, VDM IDPR (2019) outlines that diverse number of medicinal plants species are facing extinction and therefore, the Biodiversity of the Vhembe District provides a strategic resource with a lot of potential.

Again, Mander (1997) in paragraph 2.3 of this study states that at the provincial level there are nature conservation ordinances, which have strict limit on the access of the plants. Furthermore, he (Mander, 1997) states that, the Limpopo Environmental Management Act forbids any individual who has no permit to access the protected plants or specially protected plants in the province. This study suggests that plant species should no longer be protected by communities or indigenous health practitioners of Malamulele. Especially because some plants in these communities are threatened by the development of urban communities and no longer have space to grow.

Furthermore, there exists a sense of no confidence in the management and other relevant stakeholders to restore and protect medicinal plants, as effective preservation strategies seem to be ineffective. It is evident that, a review of the current strategies can be of paramount importance to create awareness of the effects of urbanisation on medicinal plants, which have a greater chance of extinction. Miller and Hobbs (2002) in paragraph 2.1 of this study reveal that urban biodiversity has an important role in educating an increasingly urban population about nature and science conservation, which includes the preservation of plant species. Moeng (2011) in paragraph 2.3 also indicates that CBNRM has been established as one of the mechanisms for plant conservation. Damn (2002) states that the adoption of the identified mechanisms can enable rural communities to effectively manage their immediate environments, while considering ecological principles to economically benefits from medicinal plants, wildlife and land. The rural community conservation activities should be implemented to re-look at the re-establishment of grass roots democracy and freedom to control their assets and improve socio-economic status of these communities for the benefits of rural conservation. Again, Damn (2002) in paragraph 2.3 of this study states that for this to happen, conservation and tribal authorities as well as local communities must enter a partnership. An agreement should be established to offer proper management strategies of available permit systems for the protection and preservation of medicinal plants in the South African rural areas.

5. THE IDENTIFICATION OF STUDY THEMES AND CHALLENGES

5.1 The effects of urbanisation on the availability of medicinal plants

Expansion of urban areas: In paragraph 4 of this study, Czech *et al.* (2000), McKinney (2008) and Molewa (2019) in paragraph 1 agree that that all group of species, often reduce in areas experiencing extreme urbanisation, where larger portion of land is consumed by the expansion of urban areas, where medicinal plants are destroyed and not protected or preserved for future medical use.

The uncontrolled development activities: The cited researchers, such as McKinney (2008) and VDM IDPR (2019) in paragraph 4 of this study acknowledge that [District] Fauna and Flora are facing extinction owing to uncontrolled development activities, affecting sensitive ecosystems and endangered species, such as the medicinal plants.

5.2 Identified medicinal plants viewed as being scarce

Indigenous knowledge: The removal of vegetation: As indicated in paragraph 4 of this study multiple researchers, Van Wyk *et al.* (2002) and Magoro (2008) agree that removal of vegetation from its roots and burning of land during urbanisation processes lead to medicinal plant extinction.

The removal of vegetation: As in indicated in paragraph 4 of this study, Van Wyk *et al.* (2002) and Magoro (2008) admit that removal of vegetation from its roots also lead to the extinction of medicinal plants. Zhang and Zhou (2019) in paragraph 1 showed the importance of biodiversity on human welfare and how the medicinal plants are destroyed.

5.3 The strategic management methods to safeguard medicinal plants

Indigenous knowledge: As indicated in paragraph 4 of this study, researchers such as the DST (2004) and Magoro (2008) respectively admit that indigenous knowledge still plays an important role in sustainable livelihood of a significant proportion of the South African population of medicinal plants, whereas, Molewa (2019) in paragraph 2.3, relate to the importance of Global Strategy for Plant Conservation.

Strict limited access: As shown in paragraph 4 of this study, Mander (1997) states that another method for conservation of medicinal plants is through having strict and limited access to the nature reserves where medicinal plants are protected. The WHO (2019) in paragraph 4 of this study, hints on available National policies, laws and regulations and programmes for the support of T&CM, while, Mothibe and Sibanda (2019) share that the use of ATM by the public (Rural communities included) will continue growing.

6. STUDY CONCLUSIONS AND RECOMMENDATIONS

The aim of this study was to explore literature on the effects of urbanisation on the availability of medicinal plants (Red data species) in the Limpopo Province of South Africa. From this study's main aim of exploring the effects of urbanisation on the availability of medicinal plants (Red data species) in Limpopo Province, South Africa, it was established that urbanisation has a major impact on the loss of medicinal plants in this area. Furthermore, the objectives of this study were to identify medicinal plants viewed as being scarce and to outline strategic management methods to safeguard medicinal plants, as well as to explore ways in which medicinal plants can be protected against threat of urbanisation and other factors.

According to the findings of this study, the main source of how urbanisation affects the availability of medicinal plants was through the development of urban settlement. This is because the majority of people who live in villages around Malamulele relocate from villages to urban areas, where medicinal plants are destroyed without preservation or conservation. Although institutions such as CBNRM are established to protect and preserve medicinal plants, they are not successful in protecting some medicinal plants; Moeng and Potgieter (2011) support this in paragraph 2.3 of this study. As stated by McKinney (2008) in paragraph 2.1 of this study, studies on the effects of urbanisation on plant richness indicate that urbanisation can increase or decrease species richness, depending on several variables, and because of decrease in species richness it leads to medicinal plants being extinct or being scarce for their health purposes. Thus, the issue of extinction of medicinal plants is recognised as a major problem in Malamulele and nearby areas.

In Conclusion, the purpose of this study was to look at the effects of urbanisation on the availability of medicinal plants and suggest possible ways to preserve and protect them while considering urban developments in e selected South African rural areas.' The issue of urbanisation has been proven by this study that it has greater effects on the availability of medicinal plants. Recommendations are provided in the following section for possible implementations thereof.

6.2 Study recommendations

This study can be used as a guide to equip relevant stakeholders and to create awareness of the related effects of urbanisation on medicinal plants. Further research studies could be done pertaining to this subject area to ensure triangulation as a method of reliability. For the purposes of good practices to ensure that urbanisation does not affect the availability of medicinal plants and to ensure that medicinal plants are preserved and protected, this study recommends the following, as illustrated in tables 2-4 of this study

Table 2: Recommendations to improve study aim and the identified themes and challenges

| Identified themes and challenges | Recommendations |
|-------------------------------------|--|
| Study aim | To explore literature of the effects of urbanisation on the availability of medicinal plants [Red data species] in Limpopo Province (Malamulele areas), South Africa |
| Expansion of urban areas | This study recommends that, although urban expansion cannot be stopped, all medicinal species found in the site of the expansion should be well preserved in an area where they can be found when needed. |
| Uncontrolled development activities | It is recommended that during development activities, certain people such as traditional healers who need the medicinal plants on regular basis should be consulted on how these medicinal plants could be preserved for future use. |

Source: Researchers' illustrations (2020/2021)

Table 3: Recommendations to improve study objective 1 and the identified themes and challenges

| Identified theme and challenge | Recommendation |
|--------------------------------|---|
| Objective 1 | To identify medicinal plants viewed as being scarce in the Limpopo Province (Malamulele areas) |
| Removal of vegetation | It is recommended that during urbanisation in which medical plants are uprooted, people should not destroy them but plant them in another area where they can be protected. |

Source: Researchers' illustrations (2020/2021)

Table 4: Recommendations to improve study objective 2 and the identified themes and challenges

| Identified themes and challenges | Recommendations |
|----------------------------------|--|
| Objective 2: | To outline strategic management methods to safeguard medicinal in the Limpopo Province (Malamulele areas) |
| Indigenous knowledge | This study suggests that indigenous people with indigenous knowledge about medicinal plants should be part of the conservation team and they can be used to document medicinal plants. |
| Strict limited access | This study recommends that nature reserves that have strict limited access are better option that can be used to document the medicinal plants. |

Source: Researchers' illustrations (2020/2021)

7. REFERENCES

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EXPOSITION OF MOTOR VEHICLE THEFT AND HIJACKING IN SOUTH AFRICA: A SYSTEMATIC REVIEW STUDY

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ABSTRACT

The events of motor vehicle theft and hijacking in South Africa have extended to startling magnitudes and influence many lives negatively. This study exposes the contributory factors, consequences, possible solutions and measures to curb this crime. This study adopts qualitative research approach, with an aid of non-empirical research design: Systematic review by purposively selecting secondary existing literature on this subject, restricted from 2001 to 2021 (19, 8 months' years' projection – By the time of conducting this study). The findings of this study indicate that some of the major causes of this crime are corruption, socio-economic issues, ineffectiveness of the Criminal Justice System (CJS) and profit. The findings further outlined that the consequences of this crime can take many forms including physical, psychological, financial and social and, addressing this crime remains a serious challenge, not only for the National government, but also for vehicle owners. For recommendations, the study suggests that the CJS should implement strategies to effectively address this scourge, supported by proper implementation of the National Crime Prevention Strategy (NCPS) of 1996. The study also recommends that borders should be strictly managed. It is also suggested that the local South African Police Service (SAPS) should be ethical to avoid corrupt activities at all times and the National government should invest in Youth Empowerment Scheme [YES] to enhance skills in order to alleviate poverty and create jobs.

Keywords: Car hijacking, Exposition, Motor vehicle, Motor vehicle theft, Theft

1. INTRODUCTION AND PROBLEM FORMULATION

The occasions of motor vehicle theft and hijacking in South Africa have reached frightening dimensions (Kong, Blodgett, Weale, Bruce, Laing, Bekker & Clarke, 2019). This crime affects the lives of expanding number of individuals (Geldenhuys, 2015). Historically, the foremost

incident of this crime happened in Soweto during 1976 when Lorries [Trucks] stacked with conveyances were halted and looted by students who were dissenting (Internationalist Communist Union, 2006). The term ‘carjacking’ is a blend of ‘car’ and ‘hijacking’ and was initially begat by EJ Mitchell, an Editorial Manager with ‘The Detroit News’ (Marquis, 2016:np). Kong, Blodgett, Weale, Bruce, Laing, Bekker and Clarke (2019) express that paying little attention to the standard media inclusion, car hijacking remains an under-investigated and ineffectively understood wrongdoing.

In addition, this practice is regarded as group activities where hijackers form part of a syndicate or a services supplier move stolen vehicles to an organised syndicate that is at a higher level (SAPS, 2011:1). Geldenhuys (2015:24) states that this crime refers to much broader concept than how people think it is, in essence, it is a serious, sophisticated, masterminded organised crime with links that reach across many countries, both within the Southern African region and beyond. Practically, Zinn (2013:185) says that car hijacking is mostly carried out by two or three male culprits whereby a victim is loomed from a driver’s side of the vehicle. Nevertheless, if there are more perpetrators involved, the motor vehicle will be approached concurrently from the driver’s side and the passenger’s side (Zinn, 2013:185). Zinn (2013:185) further articulates that there are three main roles that are appropriated to group associates to approach the vehicle, that are, the driver, the one who drives the vehicle, the pointer, which is a person who points the weapon, and the searcher, the one in charge of searching the victim and the motor vehicle for guns and anti-hijacking gadgets. Typically, hijackers follow the targeted vehicle; force it off the road with another vehicle pretending to be police officers (Zinn, 2013:186). Besides, motorists are also forced to decrease their speed or stop with roadblocks by the placement of objects or bricks in the roads (Zinn, 2013:186).

In addition, News24 (2020:1) reports that sometimes hijackers pretend to be potential buyers of new vehicles or the ones advertised on newspapers, and while on test drive, they eject the sale representative at gunpoint and drive off with the car. In the same vein, Zinn (2013:186) writes that hijackers sometimes throw sharp objects on the road to cause the tyres to blow, forcing the motorists to stop and once they have replaced the tyre, hijackers will appear. Buys (2009:1) indicates that most hijackings occurred between Monday and Friday, which can be considered as the high impact/risk days. Whereas Saturdays are medium impact/risk, days and Sundays as the low risk days of the week. The lower figures on Saturday and Sunday can be explained by the fact that, on these two days many drivers are not working and most of the truck drivers have already reached the depots and delivered the freight (Buys, 2009:np). Admittedly, Zinn (2013:185) states that the places known as hijacking hotspots are residential places, traffic lights, intersection, stop signs and overnight stops. Zinn (2003:179) also indicates that the reason why these places are hijacking hotspots is because motorists are obliged to stop at them which makes it easier for the hijackers to spot the vehicle and approach it, while the engine is still running. Further, car hijackings can also take place in shopping centres, where hijackers observe the movements of the victims as they enter shops to determine if whether they are carrying weapons or if the immobiliser is fitted in the vehicle (Zinn, 2013:185). Doubtlessly, the BusinessTech (2021) shares that the crime statistics released by the SAPS from 1 October 2020 to 31 December 2020, showed an

annual increase of motor vehicle theft and hijacking across South Africa, further supporting South African CJS ineffectiveness.

Approximately 4,794 carjackings were reported during 2020 period; furthermore, escalation of 7.4% was recorded compared to the same period in the previous year [2019], whereby about 4,462 cases were reported. An increase of this crime was reported across all provinces within the country, with the exceptions of these Two (02) provinces, namely the Free State (FS), which saw no change, and the Eastern Cape (EC), which indicated a decrease of 2.1%. The majority of these cases were recorded in the most populous areas. The most reported cases were recorded in Gauteng [GP] (2,346), followed by the KwaZulu-Natal [KZN] (791) and the Western Cape [WC] (708). Apparently, sedans and hatchbacks are the most popular targets, followed by Bakkies and Sport Utility Vehicles (SUVs). Nyanga in the WC reported the greatest number of carjackings (133), followed by Umlazi in KZN (73). Again, Motroka in GP (48) had most reported cases. Most of these hijackings took place in Townships followed by the close residential areas, BusinessTech (2021). Notwithstanding, the data published by vehicle-tracking company ‘Tracker’ in January 2020 show that this crime (Carjacking) is popular than vehicle theft in the country, indicating an average of 53/47 split versus common theft. Thus, this crime is touted as an opportunistic tactic; majority of vehicles are targeted for their loads, fast-moving consumable goods notably. Moreover, drivers carrying large amounts of cash are also targeted. Specifically, the Tracker data indicate that: Most vehicles are being hijacked or stolen at the end of the week and most hijackings are reported on Wednesday through to Friday and between the hours of 16h00 and 20h00. Theft is mainly reported on Wednesday through to Saturday and between the hours of 11h00 and 15h00 (BusinessTech, 2021).

What is more, Tracker’s data show that GP still experiences most reported vehicle theft and hijacking, with Johannesburg and Pretoria as the hotspot, followed by KZN, with Durban as the hotspot for both hijacking and theft. In the WC, car hijacking mainly occurs in Mitchells Plain and theft in Cape Town areas, BusinessTech (2021). Nevertheless, Zinn (2013) alleges that prior to 1987, motor vehicle theft and hijacking in South Africa has significantly increased to an extent that it is viewed as one of the countries with the uppermost hijacking numbers in the whole world. Rory (2006) states that there were 16,000 announced car jackings in 1998 and the figures dropped to 12,434 reported car jackings in 2005 and kept on dropping until the 2011-12 financial year. However, motor vehicle hijackings up surged with the overall increase in violent organised crimes in South Africa and that in 2016/2017 alone, there were 17 900 occasions of motor vehicle hijacking reported to the SAPS (James, 2017). South Africa is considered a country with the highest car hijacking records, this impacts negatively on the wellbeing and security of the residents and the economy (Burgers, Wright & Nel, 2007).

Additionally, with the analysis of the statistics published every year by the SAPS, it cannot be denied that South Africa is experiencing higher rates of motor vehicle theft and hijacking. Geldenhuys (2020) states that SAPS reported 18162 cases over a Twelve months’ period (April 2019 to March 2020) that equates to 50 cars being taken per day in South Africa. Furthermore, Zinn (2013) highlights that up to 1996, vehicle hijacking was categorised as motor vehicle theft, robbery or murder. However, throughout 1996, an introduction of an operative computer catalogue or record allowed the SAPS to assign a distinct code to vehicle hijacking in police statistics (Zinn,

2013). Zinn (2013) remarks that the CJS lacks knowledge of the fact that hijacking involves violence, as such this often contributes to hijacking consequences being ignored. The CJS treats the victims of car hijacking as merely the victims of property crime thus overlooking the harsh consequences that they face (Zinn, 2013). It is clear that car theft and hijacking are violent crimes and their impact does not end on the day in which the incident took place, but continues to reverberate at various levels, including traumatising the family and close friends of the victim (Zinn, 2013). Geldenhuys (2020) reveals that the level and the nature of car hijacking in South Africa do not only influence negatively on the individuals and their families, but also on the insurance industry.

Conversely, Burgers, Wright and Nel (2007) assert that the policies put in place to govern motor vehicle theft and hijacking such as ‘the National Motor Vehicle Crime Prevention and Combating Strategy’ have been put in place to combat this problem, but the numbers of incidents of motor vehicle theft and hijacking keep on escalating. The ever-increasing hijackings may suggest that strategies put in place by NCPS, 1996 may either be impractical or out of context. Despite the fact that the high rates of motor vehicle theft and hijacking coupled with the general chaos daunt potential investments in South Africa, the hijacking situation has also become an embarrassment for South African diplomats abroad (Geldenhuys, 2015). General information concerning victims of motor vehicle hijackings, possible solutions, prevention strategies and incidents is limited. However, available data from differing literature focus on past incidents or location-based cases. Most authors do not write specifically on hijacking as a single entity, but usually treat it as part of other transnational crimes in a sense that a large number of hijacked vehicles are smuggled across South African borders. As such, this paper aims at exposing vehicle theft and hijacking in South Africa, by discussing the causes, consequences, solutions and preventative measures.

2. METHODS AND MATERIALS

This qualitative study adopts a systematic desktop study. This research design deals with efficient exploration of existing information on a specific subject (Johnston, 2017:620). Data are extracted from documentary secondary sources obtainable from University of Limpopo (UL) library and electronic databases/online sources, for instance: Journals, books, articles, reports, website, magazines and newspapers, restricted from 2001-to-2021, the keywords on motor vehicle theft and hijacking in South Africa [Not in sequence] (This reads with Table 1). The non-probability: Purposive sampling was adopted in this study based on information richness, as supported by (Etikan, Musa & Sunu, 2016:2; and Maluleke, 2020:210). Mokwena, Motsepe, Maluleke and Shandu (2020a:16141-16142) Mokwena and Maluleke (2020:16148) and Maluleke (2020:210). This study uses inductive Thematic Content Analysis (TCA) (McKee, 2001:139) to gather and analyse text information to make deductions from the texts.

Furthermore, researcher may collect qualitative documents, for example; public documents, for example; newspapers, minutes of meetings or official documents (Creswell, 2014:190). One can ask questions of documents in the same ways as one might ask questions to study participants (Matthews & Ross, 2010: 282). As initially stated, the UL library was visited to browse internet sources by accessing relevant information from these databases; Electronic Information Services (Electronic databases – Google Scholar, EbcoHost, Emerald Insight, Jstor, ProQuest, Sabinet,

Sage Online and Science Direct), journal articles, books, dissertations, and online newspapers, (Matthews & Ross, 2010), in an attempt to expose motor vehicle theft and hijacking in South Africa. The number of searchers on the used keywords are listed in Table 1.

Table 1: Frequency of predetermined keywords/phrases (Categories).

| Keywords/phrases | Number of searches | Percentages (%) |
|--|--------------------|-----------------|
| THE STUDY AIM | | |
| Exposing motor vehicle theft in South Africa. | 5 | 6.25% |
| Exposing car hijacking in South Africa. | 7 | 8.75% |
| THE STUDY OBJECTIVES | | |
| The nature of motor vehicle theft and hijacking in South Africa. | 3 | 3.75% |
| Identifying the prevailing causes of motor vehicle theft and hijacking in South Africa. | 21 | 26.25% |
| Outlining consequences suffered by victims of motor vehicle theft and hijacking in South Africa. | 9 | 11.25% |
| Violence experienced. | 11 | 13.75% |
| Determining the benefits against the losses of committing motor vehicle hijacking and theft. | 17 | 21.25% |
| Assessing of solutions and prevention measures of motor vehicle theft and hijacking. | 7 | 8.75% |
| | 80 | 100% |

Source: Researchers illustration (2021)

From Table 1, it can be deduced that the number of keywords that were used on the aim and the objectives when collecting data. The frequency represents how many times each keyword appears on the aim and the objectives. The percentage of the keywords were calculated using the overall frequency of the used keywords based on the aim and the objectives of this study (80] (Number of searches), determined by each keyword frequency and percentages (100). The percentage of each key word was calculated using this formula:

- $\text{Percentage} = \text{Frequency} \div \text{Total frequency} \times 100.$

Moreover, for data analysis, this study focuses on documentary studies, where TCA was utilised qualitatively to make sense of the keywords extracted from number of searches. As such, the researchers analyse data through this procedure. McKee (2001:139) defines TCA as a means of gathering and analysing text information and making a sophisticated deduction at some of the most likely clarifications that may be produced from the reviewed texts, with the already stated notion that one can ask questions of documents in same ways as with study participants. Data

could be more qualitative, by adhering to his question; *what ideas expressed in document, what is underlying approach or 'agenda' of document?* (Matthews & Ross, 2010: 282). Besides, Silverman (2014: 313) highlights that TCA depends upon very detailed data analysis and its effectiveness rests on limited body of data to work with. May be useful to explore different kinds of data (i.e. newspaper reports) to establish data set and limited material further by only taking a few texts or parts of texts (I.e. Headlines), by using TCA to identify, analyse and report patterns within data set, allowing for descriptive organisation of the data in a way that facilitates interpretation of various aspects of research topic, this analysis approach can be usefully applied to documents (O'Reilly & Kiyimba, 2015:75), and it can also be used to answer almost any study objectives as this study refers (Braun & Clarke, 2013:178).

3. LITERATURE REVIEW

This section provides a synthesis of relevant literature studies on this subject to demonstrate that the researchers were familiar with key authors, texts and, central concepts relevant to this study. This was done to show how this study contributed to what is already known, to fill the niche/gap identified in the introduction and problem formulation section of this study. The focus was placed on situating this study within the academic domain to substantiate aim and objective of this study.

3.1 Causes of motor vehicle theft and hijacking

3.1.1 Socio-economic conditions

Maluleke and Dlamini (2019:124) state that poverty and unemployment play a serious role in the increase of motor vehicle theft and hijacking. In the same vein, Buys (2009:76) indicates that the enormous joblessness rate in South Africa allows the illegal syndicates superiors to face no struggle in recruiting or employing the motivated offenders to do the hijacking and the conveyance of the merchandise to the accepters, for a certain sum of money. Additionally, Van der Post (2018:np) states that many people are excluded from finding employment and are faced with poverty which means that they will be happy to take more risks to make a living since they have less to lose. According to Buys (2009:29), the reason why trucks are hijacked relates to the loaded goods, such as cooking oil, alcohol, fuel and canned goods that they carry which have a high resale profit and can be easily resold and disposed on the black market. The fuel that is stolen is then sold to filling stations at R1.00 a litre. This proves that the hijackers target the trucks that have goods with a high monetary value. The principle benefit of perpetrating vehicle crime is bringing in cash.

What is more, Cherbonneau and Copes (2006:197) express that vehicle crimes grant the offenders the advantage of carrying on with their elegant way of life by giving a suitable kind of revenue. Copes' (2003:17) found that offenders said they took vehicles to benefit monetarily from the offer of stolen vehicles. Motor vehicle theft and hijacking can be a beneficial business in situations whereby one has legitimate abilities and associations. The pay from the minimum-wage occupations that portray the employment prospects of individuals in their societal standing are woefully deficient to uphold this quick lifestyle (Copes, 2003:17). Indeed, even those with employable aptitudes are left with void wallets, as one abnormally gifted perpetrator clarified:

Well, it's difficult to go to work constantly for 12 hours per day and earn 200 dollars when you got a 200-dollar drug bill daily (Copes, 2003:17).

3.1.2 Corruption, Criminal Justice System incompetency and inadequate border controls

Geldenhuys (2015:26) states that motor vehicle hijackers continue to function and prosper simply because of the corruption on border officials. According to Buys (2009:77), corruption is a requirement and a produce of organised crime and organised crime cannot occur in the absence of corruption. Furthermore, Buys (2009:77) highlights that the degree of organised crime can basically be credited to the help that is provided by corrupt officers to organised crime syndicates through the collective system. In the same breath, Bila (2015:45) shares that the normal *Modus Operandi (MO)* of this organised crime involves bribing crucial officials, or luring them into an assembly, which permits them to part proceeds. Such crucial officers can also be blackmailed, once they have accepted a bribe (Roelofse, 2015:15). Dishonest officers at various border ports typically assist in trafficking the trucks through the border ports (Buys, 2009:78). SAPS officials are involved by being paid bribes to ignore grievances and alter criminal records, abolish or give away dockets, take meagre statements from plaintiffs or eyewitnesses and to guarantee that no charges are placed against perpetrators (Buys, 2009:78).

Further, Maluleke and Dlamini (2019:118) reveal that another main motive for high hijacking numbers in South Africa is because of the uselessness of the South African CJS. According to Erasmus (2012:np), statistics indicates that for every 1000 crimes committed in South Africa, approximately 450 are reported, 230 solved, 100 criminals prosecuted, 77 sentenced, 36 imprisoned and a mere 8 serve a sentence for more than 2 years. For this reason, hijackers are motivated by the fact that chances of being prosecuted are very slim. The ineffectiveness of the CJS motivates hijackers. Furthermore, Erasmus (2012:np) stipulates that the way in which one can easily get bail, get light sentences, the notion that death penalty is abolished and the point that the current CJS is not operating at a state that can establish a reliable deterrent to hijackers is the main reason why hijacking figures are up surging. Consequently, hijackers are said to openly joke at the inability of the CJS to prevent, punish criminals and prevent all crimes in general (Erasmus, 2012:np). The more the CJS is reluctant and unable to deal with hijackers, the more they will be encouraged to commit such crimes. If people who are supposed to maintain law and order are failing, where the violation of the law continues unabated for many years, trust in them is worn. Consequently, hijackers use this incompetency to their advantage to commit more crimes.

3.2 Consequences of motor vehicle theft and hijacking on victims

Maluleke and Dlamini (2019:118) point out that the serious consequences that motor vehicle theft and hijacking hold for people is in relation to the loss property, physical wound and emotional shock and negative community response to motor vehicle hijacking, as well as intercontinental condemnation, have contributed to the SAPS considering hijacking as one of the most serious crimes they have to deal with.

3.2.1 Physical consequences

It is clear that motor vehicle drivers in South Africa are exposed to one of the most unpredictable and violent crimes in the whole world (Zinn, 2013:189). Geldenhuys (2015:26) states that the new

developed anti-hijacking technology that makes it difficult for hijackers to steal vehicles is the reason for the increment in the nature of violence of this crime. Zinn (2013:188), on the other hand, provides that most victims of motor vehicle hijacking do not necessarily sustain injuries during the hijacking because the outcome of hijacking depends on two role players, namely: A shocked victim and a nervous hijacker and that violence is a result of refusal to co-operation. Zinn (2013:189) identifies that motor vehicle theft and hijacking victims are subjected to threat of violence or violence by the perpetrators who want to seize the control of the vehicle. Victims are threatened with guns and exposed to corporeal violence as they are usually pushed about, struck on the head, pushed on the ground, pulled out of the vehicle, tied, pistol whipped and sometimes shot (Zinn, 2013:189). Consequently, after motor vehicle theft and hijacking incidents, victims are left with grievous bodily harm, broken bones and may sustain serious injuries. When pushed on the ground, the victim might hit the ground with their heads or when struck with the pistol, they may get head concussions, which may lead to chronic migraines, poor balance, mental confusion and sensitivity to light. Furthermore, being shot in any of the body parts may leave bullets inside which may lead to surgical operations to be removed and may leave permanent scars on the victims' body. Additionally, a severe physical trauma a victim can sustain is losing his/her life because of the violence endured during the incident, (Zinn, 2013:189)

3.2.2 Psychological consequences

According to Zinn (2013:189), whether the motor vehicle theft and hijacking is violent in nature or not, it appears that the victims experience it as traumatic and that it is clear that the psychological impact on victims is extremely severe. This shows that motor vehicle theft and hijacking have a serious negative effect on the psychological makeup of victims. Furthermore, Rossouw (2002:1) provides that victims of motor vehicle hijackings are emotionally implicated in such a manner that they face strong emotional state of shock, incredulity, confusion, vulnerability as well as of helplessness and loss of control during the hijacking. Zinn (2013:191) states that motor vehicle hijacking victims also show different cognitive, emotional, behavioural and biological changes post victimisation, which are usually symptoms of post-traumatic stress disorder.

According to Burgess, Regehr and Roberts (2010:1), the cognitive reactions that victims may experience after the hijacking includes panic attacks, self-blame, nightmares, flash backs and are living the hijacking event. The feelings of self-blame occur when victims think that they should have acted in a way that could have prevented the incident, they blame themselves from not perceiving the hijacking, and taking control of the situation even when they realise that it was not possible for them to wrestle the armed robbers. Flash backs and relieving the hijacking experience include the victims recalling the crime scenes, how the perpetrator conducted the crime, the verbal threats and things such as guns that were used to carry out the hijacking (Zinn, 2013:191). Lastly, victims may experience panic attacks, which may involve extreme anxiety and fear when exposed to a situation that reminds them of the situation.

The post victimisation emotional reactions consist of the feelings of bitterness, depression, anger, fear, disbelief and anxiety (Zinn, 2013:191). Victims of vehicle hijacking usually become anxious of any movement happening around them, they develop a fear of being outdoors or driving all

alone because they are scared of the reoccurrence of hijacking (Zinn, 2013:191). They also develop a phobia of guns and strangers that might approach the car they are in (Burgess, Regehr & Roberts, 2010). They tend to be in denial of what has happened to them, they usually disbelieve what has happened to them and as such become bitter towards people around them (Zinn, 2013:191). In addition, Shoman, Knepper and Kett (2010:2) state that vehicle hijacking has three elements of fear which are a fear of loss of property, a fear of dying or being injured and a fear of associated crimes such as rape and kidnapping. The victims of motor vehicle hijacking usually develop biopsychosocial reactions, which includes insomnia, continuous distressing dreams, nightmares and a loss of appetite or overeating (Zinn, 2013:191). It was found that they avoid sleeping because of the fear of reliving the hijacking incidents in their dreams or change-eating patterns because of the depression developed post the hijacking. The behavioural reactions usually include victims avoiding places or circumstances that associates with hijacking, not wanting to drive or going to areas in which the victimisation took place and social withdrawal (Zinn, 2013:191).

3.2.3 Financial consequences

Zinn (2013:183) confirms that the most significant financial consequences of motor vehicle hijacking is losing the vehicle. The private vehicle is one of the most expensive items that an average individual can acquire during his or her lifetime, as such; losing that vehicle can be a significant financial setback an individual can encounter (Zinn, 2013:191). Despite the loss of a vehicle, victims also lose personal items such as cell phones, sporting equipment, books and clothes that might have been in the car when the hijacking took place and replacing them means incurring more financial expenses (Zinn, 2013:189). Other financial harms include increased medical expenses and finding an alternative transport or replacing the vehicle, and costs of trying to claim the insurance premium, which only covers the market value of the vehicle (Zinn, 2013:191). Geldenhuys (2015:26) reasons that vehicle hijacking does not only affect the individuals, but also the economy and the transport industry. It is thus very clear that the hijacking of trucks with freight has without any doubt a negative influence on domestic and foreign investors' confidence, as well as on the development process in general and on job creation. When investors pull out, it is clear that the economy will shrink, companies will be bankrupt and shut down which will result in citizens becoming unemployed. Buys (2009:46) states that truck hijackings contributed a R3 billion loss to the country's economy.

3.2.4 Social consequences

Zinn (2013:191) alleges that the unpredictability of this crime makes it the most feared crime by societies. Fear is not the only social consequence of hijacking, but also the loss of feelings of security by communities is also associated with this crime (Zinn, 2013:183). Correspondingly, Geldenhuys (2015:25) states that the hijacking of trucks with freight has an overall negative impact on all the aspects of the CJS and that SAPS is having difficulties in addressing the crime successfully. It is obvious that a great number of cases are closed as undetected and this has a negative impact on the societies as they lose trust in the SAPS and could lead to people starting to take the law into their own hands, namely vigilante groups (Geldenhuys, 2015:26). Equally, Buys (2009:46) shares that a countless quantity of businesses are employing their own private agents to investigate the crimes of vehicle theft and hijacking, to help in trying to recover their trucks and

goods. Even though the corporations are not asserting it clearly that they have lost confidence in the SAPS capability to combat the hijackings, their employing of these investigators shows that they have indeed lost trust in the SAPS (Buys, 2009:46).

3.3 Possible solutions and preventive measures for motor vehicle theft and hijacking in South Africa

Motor vehicle theft and hijacking can be reduced if individuals, who own vehicles invest in systems such as alarms and immobilisers, use them effectively and maintain them. Alarm systems according to Tummala and Krishnaiah (2013:3) are systems used to inform individuals when a theft occurs. When a perpetrator attempts to steal a vehicle, other locomotive kit or personal possessions in a vehicle, the system detects this attempt and issues an alarm to prevent it (Tummala & Krishnaiah, 2013:3). In the same vein, Tummala and Krishnaiah (2013:3) write that immobiliser Systems are used to prevent the theft of a vehicle itself, immobiliser system disables engine start-up or prevents it from being moved, it immobilises a vehicle either electronically by restricting the operation of electric automotive equipment or mechanically by locking the steering wheel, pedals or gear shift lever. Similarly, the available control system in the market data such as global position, speed and velocity of the vehicle is transmitted over the cellular network to the users' confidential account. The user can get to know about the vehicle and can give command to the vehicle such as stopping the vehicle or door lock through the mobile phones (Tummala & Krishnaiah, 2013:3).

Moreover, legal sanctions and punishment can achieve a serious vital role in the deterrence of motor vehicle theft and hijacking even though it takes effect after the arrest and sentencing (Zinn, 2013:192). Newburn (2009) contends that sentencing only for the sake of punishing offenders will not help in preventing the crime of hijacking but will instead fill correctional facilities with the criminals. Taking into consideration the issues faced in effectively prosecuting organised crime syndicates, the South African legislator introduced the Prevention of Organised Crime Act [POCA] (No. 121 of 1998) (Zinn, 2013:192). The POCA of 1998 deals with racketeering, confiscation or forfeiture of assets that have been obtained through criminality (Zinn, 2013:192). The aim of POCA of 1998 is therefore to deprive offenders these assets in order to deter them from further committing the crime. Police visibility such as roadblocks, police activity and organised patrols in high-risk areas should be acknowledged as effective measures to curb road and vehicle related crimes (Zinn, 2013:192). Zinn (2013:193) provides that the introduction of the special tasks teams by the SAPS to respond fast to organised crimes, focused crime prevention programmes and the specialist courts can decrease the incidents of vehicle theft and hijacking. Besides, regular inspections of vehicle repair shops and scrap yards could result in tracing stolen or hijacked vehicles or spares (Zinn, 2013:193).

4. STUDY FINDINGS AND IDENTIFIED THEMES

This section presents the study findings and identified themes to afford credibility and dependability of this study. The literature studies were used for data collection to expose available perceptions, experiences and provide credible data on this subject (Vehicle theft and hijacking in South Africa). The reviewed studies presented a true and accurate picture of what is claimed by

various researchers on this subject and coherent linkages between the data and reported findings were reached to corroborate identified themes and inferences (Dependability).

4.1 Notable contributory factors of motor vehicle theft and hijacking in South Africa

The causes of motor vehicle theft and hijacking relate to the country '*socio-economic conditions*,' as presented in section 3.1.1 of this study, Maluleke and Dlamini (2019), Post (2018) and Van der Post (2018) cited 'poverty and unemployment' as some of contributory factors to this crime, while Buys (2009) shared that 'joblessness' and the 'lucrative nature of the loaded goods' are the main causes,' as revealed by Buys (2009). Furthermore, Cherbonneau and Copes (2006) looked at the 'profit' and Copes (2003) revealed that the resulting 'profit/monetary benefit,' contribute hugely to this crime. Moreover, as indicated in section 3.1.2 of this study; 'bribery, corruption, Criminal Justice System incompetency, dishonest and inadequate border control officials [And police officers] and inadequate border controls,' and police officials blackmailing causes this crime. Geldenhuys (2015), Buys (2009), Bila (2015), and Roelofse (2015) supported these submissions. Maluleke and Dlamini (2019) also blamed the uselessness of South African CJS, with Erasmus (2012) confirming the high prevalence of this crime statistically and the CJS ineffectiveness.

4.2 The physical, psychological, financial consequences of motor vehicle theft and hijacking in South Africa

In section 3.2 of this study, Maluleke and Dlamini (2019) contend that individuals often lose property, sustain physical wounds and get emotional shock due to this crime. Thus, the local SAPS consider this crime to be the most serious crime in nature. As shared in section 3.2.1 of this study by Zinn (2013), this crime is unpredictable and violence and is often used as the last resort due to lack of co-operations, this can be in a form of threat by perpetrators using guns or other immediate weapons, victims are left with serious injuries nor severe physical trauma [*Physical consequences*] and the newly developed anti-hijacking technologies positively contributes to the violence displayed by hijackers, as confirmed by Geldenhuys (2015).

In attempt to understand the '*psychological consequences*' resulting from this crime, Zinn (2013), in section 3.2.2 of this study, highlight that victims of this crime experiences traumatic events/episodes, fear, feelings of bitterness, depression, anger, disbelief and anxiety and the psychological impact on victims is extremely severe, they also show different cognitive, emotional, behavioural and biological changes after experiencing this crime. They also develop biopsychosocial reactions, including insomnia, continuous distressing dreams, nightmares and a loss of appetite or overeating, this also have a serious negative effect on the psychological makeup of victims. Rossouw (2002) shares that victims of this crime face strong emotional shocks, confusion, vulnerability and helplessness, among others. Burgess, Regehr and Roberts (2010) hint that victims of this crime might experience panic attacks, developing gun phobia and strangers, as well as self-blame, nightmares, self-blame and flashbacks, among others. While Shoman, Knepper and Kett (2010:2) reveal that the victims develop 'fear of loss of property, fear of dying or being injured and a fear of associated crimes such as rape and kidnapping.'

On '*financial consequences*,' Zinn (2013) highlight that the vehicle loss remains one of the notable financial consequences of this crime. This can have a significant financial setback on individuals.

Resulting from this crime can be directed to loss of personal items like cell phones, sporting equipment, books and clothes, thus more financial expenses may further incur. Other financial harms include increased medical expenses and finding an alternative transport or replacing the stolen vehicle and related costs of trying to claim the insurance premium. Geldenhuys (2015) and Buys (2009) state that this crime also affect economy and transport industry, this presentation stemmed from section 3.2.3 of this study. The ‘*social consequences*’ also result from this crime, as Zinn (2013) alleged that this crime is the most feared and unpredictable in the country. Communities’ loss of security is associated with this crime. Geldenhuys (2015) also confirmed that the local CJS is encountering a challenge in curbing this crime; the SAPS specifically are not winning this war. Many cases are closed as ‘undetected/untraced,’ leading to loss of public trust over the police and practices of vigilantism. Buys (2009) argues that private investigators are now hired to investigate this crime to try to recover their trucks/vehicles and goods, as stated in section 3.2.4 of this study.

4.3 Possible solutions and preventive measures for motor vehicle theft and hijacking in South Africa

To highlight the ‘Possible solutions and preventive measures for motor vehicle theft and hijacking in South Africa,’ section 3.3 of this study presented that vehicle owners should use alarms, immobilisers and smartphones. This was supported by Tummala and Krishnaiah (2013) by stating that alarm systems can be used to inform individuals when a vehicle theft occurs. Equally, the legal sanctions and punishment [Arresting and sentencing] can also act as deterrence to this crime, warns Zinn (2013). However, Newburn (2009) refuted this commendation, citing over-population of correctional centres. Zinn (2013) went on to share that prosecuting organised crime syndicates is very mountainous; he also maintained that proper implementation of POCA 1998 can ease this process in terms of confiscating assets obtained through criminality. This Act can deter them. Furthermore, local police visibility, using of roadblocks, police activities and organised patrols in high-risk areas can also positively contribute in responding to this crime, to this end, the use of the local SAPS Special Task Teams can allow quick response to the crime scenes/scenes of incidents, this can also aid to the focused crime prevention programmes and the effective use of ‘Specialist Courts,’ as well as regular inspections of vehicle repair shops and scrap yards can help in tracing stolen or hijacked vehicles or spares, it is hoped that the cited actions can combat this crime, as highlighted (Zinn, 2013).

5. CONCLUSIONS AND RECOMMENDATIONS

In conclusion, stemming from the indicated contributory factors and resulting consequences, it is evident that South Africa is facing a serious ongoing problem of motor vehicle theft and hijacking and this does not only affect individuals per se, but it also causes a serious strain on the economy of the country. It also poses serious physical and psychological impairments on the victims. The causes are physical, psychological, financial and social. Potential criminals commit this crime as a way of alleviating poverty and unemployment. The benefits of committing this crime often serve as motivation because they overly the losses associated with it. Although it is not possible to stop, combat or diminish motor vehicle theft and hijacking, addressing certain fundamental issues such as corruption and poverty and implementing solutions and prevention measures such as legislature

and technology can help reduce the number of occurrences. It is recommended that the possible solutions and preventive measures should results from the State implementations of skills training and job creation programmes for the youth (Youth Empowerment Schemes) to alleviate poverty and reduce unemployment. The state should provide more and tight security at borders. The special unit forum responsible for hijacking and other organised crimes should give attention to the trends of these crimes to be able to develop solutions to combat it and enhance the services provided by the CJS. The NCPS of 1996 in this sense should contrivance prevention strategies that are relevant to the South African context.

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CONSUMERS' PERCEPTION CONCERNING THE NATIONAL CREDIT ACT: A COMPARATIVE STUDY IN MAHIKENG, SOUTH AFRICA

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ABSTRACT

In recent years across countries, governments and other institutions concerned about social welfare of consumers have become increasingly concerned about the growing levels of debt taken. A comparative study was undertaken to compare the results from 2008 and 2020 on consumers' level of knowledge concerning the National Credit Act (NCA) and their perception of the impact of the policy on credit consumption since its inception in 2007. The primary purpose of NCA is aimed at protecting consumers against unscrupulous money lenders and regulating the credit market. The purpose of this paper is to examine consumers' level of knowledge and perception concerning the NCA as a credit regulatory mechanism in South Africa, and to examine whether the policy has had any significant impact on consumers. For purposes of this study, a quantitative longitudinal design was undertaken to examine the same sample group using the same assessment method to detect any changes with regard to the impact of the NCA on credit consumption. Respondents' level of knowledge was relatively good concerning the policy, and the majority of respondents stated that it has curbed their desire for reckless behaviour when it came to credit consumption. Consumer education is a cost-effective mechanism that provides and guarantees consumer protection. It also serves as a proactive way of protecting consumers against abuses in the marketplace.

Keywords: National Credit Act, consumers, credit, indebtedness, perception, knowledge.

1. INTRODUCTION

Globally, as explained by Adewale (2014), credit consumption has become an indispensable and integral part of household and individual spending. The important role of credit in the life of consumers is undisputed; however, few consumers make informed decisions when entering into a credit agreement and many credit providers have cashed in on this lack of knowledge, as pointed out by Clayton (2008). The National Credit Act (NCA) is aimed at protecting consumers against unscrupulous money lenders and at regulating the credit market in South Africa, principally by improving access to credit to people who have hitherto been excluded (Hunter, 2005). Despite the debt levels being high, increases in credit consumption are seen as an economic growth stimulus (Rajan & Zingales, 2003); unabated credit consumption has proven to be capable of adversely affecting economic growth as credit accumulation eventually reduces the marginal disposable household income (Ito, 1999). To strategise proactively against a potential financial crisis, regulatory interventions, essentially those that are capable of ensuring consumption

smoothing, are adopted largely to curb excessive credit consumption (The National Credit Regulator, 2012; Mittner, 2013). The recent increasing trend of personal and household bankruptcies, coupled with the financial crises that are pervading the advanced economies, is an indication that the long-run marginal household consumption is bleak, and this may eventually culminate in a prolonged global economic downturn.

The primary objective of this paper is to study consumers' perception concerning the NCA as a credit regulatory in South Africa; and the secondary objective is to undertake a comparative analysis to compare the results from 2008 and 2020 with reference to consumers' level of knowledge concerning the NCA. Furthermore, a comparison will be done to determine any similarity or contrast in consumers' perception in relation to the impact of the policy on credit consumption since its inception in 2007. The policy was introduced into the credit market with attempts to curb over-indebtedness, and ultimately to protect consumers against unscrupulous credit providers. The use of credit can be beneficial for consumers as it can enable for the acquisition of assets, education and others; however, a lack of information relating to credit has resulted in consumers' over-indebtedness that has adverse effects on them and the economy. The ensuing section will discuss the paper's theoretical background.

2. LITERATURE REVIEW

2.1 Consumer debt

The effective use of debt allows households to consume at a level greater than their current income level, with payments on purchases in the future. However, household debt has risen sharply around the globe in the past two decades, and that debt is seen as playing a more prominent role in economic decisions, as explained by Nakajima (2018). In the United States, more households than in the past are holding debt and there has been an increase in the average amount of debt over time (Kim et al., 2017). Almost 80% of U.S. families held some kind of household debt in 2007 (Kim et al., 2017). U.S. household debt increased by 176%, from \$4.6 trillion dollars to \$12.7 trillion dollars from 1999 to 2008 (Seefeldt, 2015). Following the global financial recession in 2007, overall consumer debt decreased, largely because of defaults on debt, lending practices becoming more restrictive, and a reduced demand for homes (Brown et al., 2013; Kim et al., 2017). Nevertheless, the global financial recession followed a sustained period of readily available credit and rising household indebtedness in the United Kingdom (UK) (Dearden et al., 2010). In many ways, consumers living on low incomes were among the casualties of an earlier era of easier access to credit. Low income earning consumers and the population in general, were actively encouraged to make use of credit during a period in which few attempts were made by creditors to assess consumers' abilities to repay or by the government to restrict borrowing. In a society where using credit has become the norm, many of the consumers could not resist the regular, mainly unsolicited offers of credit. Even those consumers who had the understanding that credit was not a real solution felt it was a necessary short-term means of overcoming their financial difficulties (Dearden et al., 2020). In Malaysia, particularly after the late-1990s Southeast Asian financial crisis, credit was apparently easily available (Yusoff et al., 2000; Rahman et al., 2020). Consequently, rising household and individual debts resulted in unprecedented bankruptcy filings, which weakened the intended benefits of this credit availability. In addition, according to Rahman

et al. (2020), various reports on Malaysian household debt profiles indicated that consumers' spending exceed their income and also that the number of bankruptcy cases in Malaysia increased dramatically.

In South Africa, high consumer debt levels were caused by both demand-and supply-side factors such as the overall decrease in interest rates, greater financial inclusion post-1994, a lack of financially educated consumers, vague debt contracts and reckless credit lending by financial intermediaries, as indicated by National Credit Regulator (NCR) (2012a). Household debt increased at a faster rate in the fourth quarter of 2020, with the ratio of debt to disposable income increasing slightly to 75.3% from 74.9% in the third quarter (South African Reserve Bank, 2021). Although annual growth in household debt moderated in 2020, as a percentage of nominal disposable income increased from 73% in 2019 to 77% in 2020, as the increase in household debt exceeded that of households' nominal disposable income following the impact of COVID-19. (South African Reserve Bank, 2021). The Business Tech (2021) reports that debt-to-disposable income for South African households has increased from less than 60% before 1994 to the current level of around 75%, which is higher than the long-term average of 70%. As a result, households spend approximately three quarters of their salary/income on servicing debt and a quarter of their salary is spent on goods. As analysed by Nakajima (2018), highly indebted households are more likely be bound by liquidity and credit constraints, and consequently there will be no funds or money directed towards saving. As established by ICICI (2021), saving money is one of the essential aspects of building wealth and having a secure financial future. Consumers who are over-indebted face interest rate risk, which is fuelled by inflationary pressures, which increase the nominal interest rate; an increase in the nominal interest rate will increase the amount required for debt repayments (NCR, 2012b). Consumers with mortgage debt also face investment risk if the price of their asset decreases. This will translate into the consumer owning an asset that is worth less than the total debt owed for that asset. Essentially, consumers should consider the risk of unemployment before overindulging in debt (Debelle, 2004; Waldron & Young, 2007). Griffiths (2007) and Paile (2013) acknowledged that the lack of knowledge of consumers contributes to the risk of debt. Banks have information asymmetries, and many consumers lack an adequate level of financial literacy in handling their financial affairs. South Africa is ranked as the lowest in economic literacy and the second lowest in financial education out of the 49 countries that were surveyed, as reported by Jappelli (2010). This result is alarming and highlights how essential a credit monitor is in South Africa in order to assist consumers who lack the necessary skills and knowledge to understand the intricate South African financial market fully.

2.2 The impact of the National Credit Act (NCA)

South African consumer credit legislation previously consisted principally of the Usury Act; the Credit Agreements Act 74 of 1980 (hereafter "the Credit Agreements Act"); and the Exemption Notices, 1992 and 1999 (Louw & Goodwin-Groen, 2006). A range of political, social and economic changes had influenced the consumer credit market since 1968 and these coincided with major technological advances, as explained by Renke et al. (2007). Criticism of a dysfunctional credit market was based on the following problem areas: fragmented and outdated legislation; ineffective consumer protection, particularly in relation to the 85% of the population in low-income groups; high cost of credit and, for some areas, lack of access to credit; rising levels of

over-indebtedness; and reckless behaviour by credit providers and exploitation of consumers by micro-lenders, intermediaries, debt collectors and debt administrators (Louw & Goodwin-Groen, 2006; Renke et al., 2007). The National Credit Act was introduced in the credit market replacing the Credit Agreement Act and the Usury Act; the purpose of the Act was to create a single system to regulate credit.

The new National Credit Act No. 34 of 2005 (NCA) was fully implemented on 1 June 2007 to prevent banks and other credit provision institutions from lending recklessly, a situation where the lender fails to conduct an affordability assessment, and to ensure that consumers of credit do not borrow more than they can afford (NCR, 2012b). The Act was aimed at controlling all aspects of credit in South Africa, which represents yet another sound step by the government of the Republic of South Africa to enhance the economy of the country and to build and satisfy the economic needs of South African citizens (Jordaan, 2007; Chipeta & Mbululu, 2012). There has been rising concern about an increasing number of vulnerable consumers who had little protection from falling into the trap of indebtedness in South Africa. For example, Braunsberger et al. (2004) reported that consumers generally were very knowledgeable about credit cards and their report recommended that credit providers should start to educate consumers about the product they are selling. The 2004 amended Consumer Credit Act of the United Kingdom supported product education by stipulating the use of plain and understandable language so as not to confuse the consumer, as reported by Edmonds (2014). Similarly, the NCA adopted this approach by requiring credit providers to disclose information in the language the consumer was most comfortable with.

The National Credit Act (NCA) introduced new rights for consumers, as well as measures that allow consumers to make informed decisions before buying goods and services on credit. Consumer protection lies at the heart of the Act. It attempts to prevent consumer debt and assist people who get into serious trouble (South Africa, 2005, NCR, 2012b). The National Credit Act, Act 34 of 2005, aims to reduce reckless credit behaviour. It requires credit providers to conduct a thorough analysis of consumers' affordability and understanding of the financial contract and complete transparency of the terms and conditions of the debt contract, as provided by Hurwitz and Luiz (2007). The main objectives of the Act are:

- To promote a fair and non-discriminatory credit marketplace.
- To provide regulation in the credit industry and credit information.
- To establish the National Credit Regulator and National Consumer Tribunal.
- To improve access to credit for consumers and improve the standard of information provided.
- To promote black economic empowerment and ownership within the credit industry.
- To prohibit unfair practices within the credit industry and the marketing of credit products.
- To promote responsible lending by credit providers in order to avoid over-indebtedness and reckless credit granting.
- To address consumer indebtedness by introducing debt counselling and debt restructuring.
- To regulate credit providers, credit bureaus and debt counsellors.

The Act governs all credit agreements in South Africa. A credit agreement encompasses a credit facility, credit transaction or credit guarantee, as stipulated in National Credit Act (2005) (South Africa, 2005). Figure 1 illustrates a major shift in the South African consumer credit risk profile.

Prior to 2005, the debt-to-disposable income ratio barely exceeded the 60% mark. Since 2005, as mentioned by Botha and Booyens (2015), the ratio rapidly increased to its peak of 83% in the third quarter of 2009. The arrow in the figure indicates the stage (1 June 2007) at which the NCA came into full effect. Since 2009, the ratio has slightly decreased to 74.5%, but was still considered to be aggressive, by the South African Reserve Bank (SARB) (2017). High levels of debt will leave consumers too exposed to a range of different external market shocks (Debelle, 2004a; Alan, 2006; Botha & Booyens, 2015).

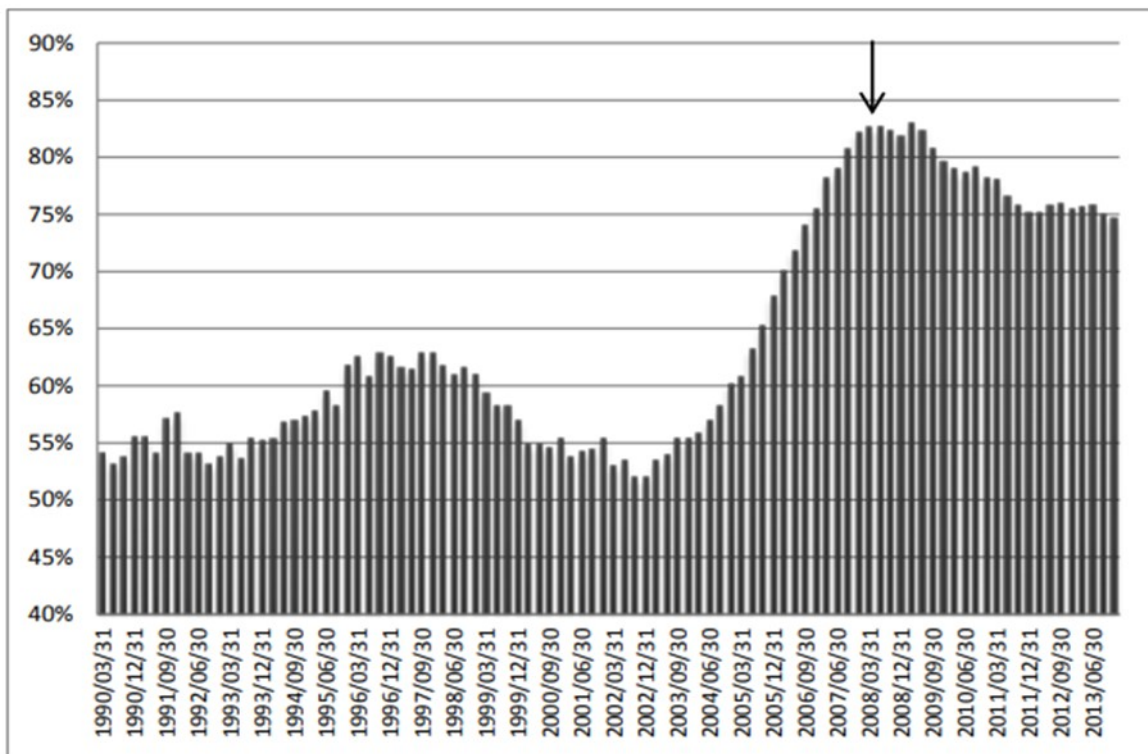


Figure 1: Household debt-to-debt disposable income ratio SARB, June 2014
Source: SARB (2017)

The NCA stipulates that if a consumer has defaulted on his/her account, the credit provider must issue a notice to the consumer to notify him/her of the default account. The credit provider must provide the consumer with his/her rights and option to see a debt counsellor within 10 days before the credit provider may take any legal actions against the consumer. Debt counsellors must examine consumers' finance in order to determine whether the consumer needs counselling regarding over-indebtedness or just poor financial management skills (South Africa, 2005).

3. METHODOLOGY

3.1 Research design

The main purpose of the paper was to examine the consumers' perception concerning the NCA and its impact on credit consumption in South Africa. Data was collected in 2008 and 2020 from government employees in Mahikeng, South Africa, to assess consumers' perception concerning the NCA, in particular the level of impact the policy has had on credit consumption in South Africa. A research design is the conceptual structure within which research is conducted – blueprint for the collection, measurement and analysis of data, as described by Kothari (2004).

Secondary data research was undertaken in order to lay the theoretical foundation upon which this paper is based, and a survey instrument was used to collect primary data from respondents

3.2 Sampling method

Since data was captured at different points in time, it provided the basis for a quantitative longitudinal research, as explained by Kehr and Kowatsch (2015). Quantitative longitudinal research, as established by Mernard (2008), Kim et al. (2009) and Laenen et al. (2010), is a method to trace changes by repeatedly measuring the same phenomenon under the same circumstances. Longitudinal studies are a type of correlation research in which researchers observe and collect data on a number of variables without trying to influence those variables, as indicated by Kehr and Kowatsch (2015). Data was collected in 2008 from a sample size of 40 government employees and similarly in 2020 to assess consumers' perception concerning the NCA, in particular the level of impact the policy has had on credit consumption in South Africa. A convenience sampling strategy, as indicated by Adams and Lawrence (2015), was used in which those who were available and willing to provide data made up the sample. In 2008, 150 questionnaires were distributed to respondents and 82 completed questionnaires were returned; nonetheless, 40 were analysable. Subsequently, in 2020 data was collected from 40 government employees to assess whether there were any changes in the findings.

3.3 Research instrument

A questionnaire was used to obtain data from respondents. The questionnaire was designed only in English for consistency, and further questions were as short as possible and as simple to understand as possible. A questionnaire was used to gather consumers' perception of the impact of the NCA on credit consumption since its inception. The questionnaire consisted of the following sections, starting with section A obtaining background information of the research population This was followed by section B, which is a series of questions concerning consumers' knowledge and perception about the NCA. A three-point Likert scale was used:

- Knowledge level – 1 = 'Relatively low', 2 = 'Average', and 3 = 'Relatively high'.
- Perception level – 1 = 'A bad policy that has seriously affected my way of life', 2 = 'A good but rather too stringent a policy', and 3 = 'A good policy that has really helped tame the way I spend'.
- Impact level – 1 = 'Serious damage', 2 = 'Average', and 3 = 'Extremely good'

3.4 Data collection

A self-administrated survey was followed, and respondents were expected to read the questions, interpret what is expected and then indicate or write down their answers. In light of the research objectives and nature of the study, a hyperlink with a questionnaire was emailed to respondents, together with the informed consent letter explaining the purpose of the study. For purposes of this study, the quantitative longitudinal research was decided upon to examine the same sample group using the same assessment method to detect any changes with findings on consumers' knowledge level about the policy and their perception concerning the impact of the policy on credit consumption from 2008 to 2020. Therefore, data was collected in the years 2008 and 2020.

3.5 Data analysis

Having collected the quantitative data, the next step was to analyse this data. All responses from the survey questionnaires were assigned numeric codes, as explained in the data collection process section, and subsequently inserted into the Statistical Package for the Social Science (SPSS) that included descriptive analysis (frequencies, mean, and logistic analysis of predictors).

4. RESULTS AND DISCUSSION

4.1 Background information

As illustrated in Figure 2, in 2008, more than three-quarters (31) of the participants indicated they were supporting three people or more. Similarly, in 2020, more than 90% of respondents participating in the study indicated that they support three people or more. The findings will suggest that participants with low salary levels (new entrants in the labour market) and have people depending on them financially might result in those individuals accumulating unnecessary debt, such as numerous credit cards to consuming perishables, student loans, and others in attempt to cope with the daily

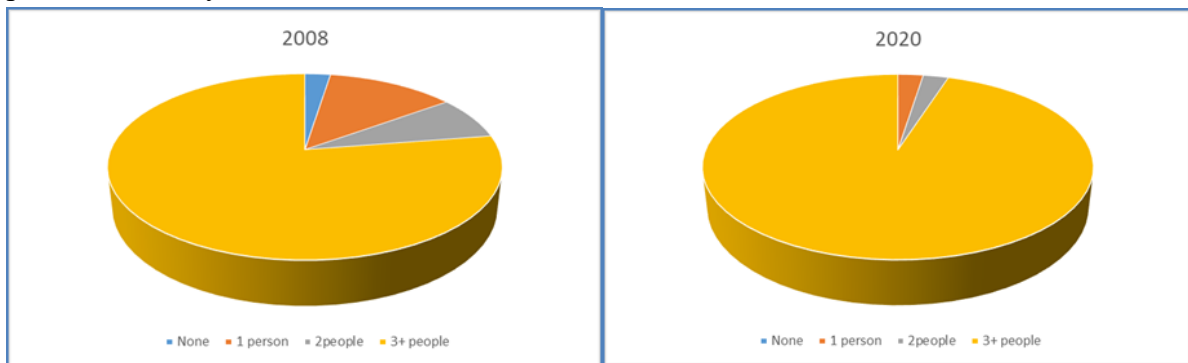


Figure 2: Number of people supporting

demands. In addition, employees who have worked for longer tend to have high levels of financial literacy and are aware of the financial distress that can be caused by insufficient personal financial management skills as compared to those who have just entered the labour market. Rahman et al. (2020) report that there is a significant difference between respondents with number of years working and two constructs (risk perception and financial literacy), whereas the rest (indebtedness, emotion, materialism) were found insignificant. The results revealed that employees working for less than three years scored higher means in indebtedness, materialism and risk perception while those working for 10 years or more scored higher means in emotional and financial literacy, respectively.

4.2 Knowledge and perception about the National Credit Act

Three questions were asked under this component of the questionnaire instrument, Knowledge and Perception about the National Credit Act, each of which was a three-point scale. Tables 1 and 2 present the distribution of responses to the three questions. Similarity in findings from 2008 and 2020 indicates a significant number of respondents (82.5% from 2008 and 72.5% from 2020) who rated their level of knowledge about the National Credit Act as ‘average’. The findings will advocate that consumers had a slight understanding of the new rights introduced, as well as the

measures in place, as this can assist them to make informed decisions when it comes to purchasing on credit.

Consumer credit is associated with significant economic benefits that assist individuals to accumulate assets, obtain education and exploit economic opportunities that can improve their standard of living. However, it is important for consumers to have a thorough understanding and appreciation of the credit legislation and regulation in the credit market in South Africa. The NCA’s primary purpose is to protect consumers when entering into credit agreements with credit providers and prevent over-indebtedness of consumers. When respondents were asked to indicate their level of perception about the National Credit Act, a greater percentage (22 or 55.0%) was of the view that it was a good policy that has really helped tame their expenses in the year 2008, while in 2020, 48% of the respondents who participated in the study indicated that the policy was a good policy that has helped tame their expenses, with 50.0% of participants indicating that it was a good policy that has really helped tame their expenses in the year 2008, while in 2020,

Table 1: Knowledge and perception about the NCA in 2008 and 2020

| Variables | | | | |
|--|-----------|--------------|-----------|------------|
| Knowledge level about National Credit Act | | | | |
| | 3 | 7.5 | 6 | 15 |
| | 33 | 82.5 | 29 | 72.5 |
| | 4 | 10.0 | 5 | 12.5 |
| Total | 40 | 100 | 40 | 100 |
| Perception about National Credit Act | | | | |
| | 2 | 5.0 | 3 | 7.5 |
| | 16 | 40.0 | 20 | 50 |
| | 22 | 55.0 | 17 | 42.5 |
| Total | 40 | 100 | 40 | 100 |
| Damage/Benefit had due to National Credit Act | | | | |
| | 1 | 2.5 | 4 | 10 |
| | 29 | 72.5 | 25 | 62.5 |
| | 10 | 25.0 | 11 | 27.5 |
| Total | 40 | 100.0 | 40 | 100 |

48% of the respondents who participated in the study indicated that the policy was a good policy that has helped tame their expenses, with 50.0% of participants indicating that it was a good but rather stringent policy. Only two (5.0%) in 2008 and three (7.5%) in 2020 specified that it was a bad policy that has seriously affected their way of life. The results tend to suggest that consumers’ understanding of the credit laws in the market combined with personal financial planning is key to avoiding being over-indebted. Essentially, the more financial intelligence the consumers acquire, the more informed decisions they can make with regard to the use of credit. Personal financial planning, as indicated by Masilo (2014), assists to determine an individual or household’s short- and long-term financial planning goals and it helps to create a balanced plan to meet those goals. Over-indebtedness of households can also arise as a result of reckless lending, not following due process to verify the consumer’s creditworthiness and subsequently high interest charged by credit providers (Swart, 2020; National Credit Act Info, 2012).

Table 2: Knowledge and perception about the NCA – summary statistics

| Variables (2008) | | | |
|--|----|------|-----|
| Knowledge level about National Credit Act | 40 | 2.0 | 0.4 |
| Perception about National Credit Act | 40 | 2.5 | 0.6 |
| Damage/Benefit had due to National Credit Act | 40 | 2.2 | 0.5 |
| Variables (2020) | | | |
| Knowledge level about National Credit Act | 40 | 1.98 | 0.5 |
| Perception about National Credit Act | 40 | 2.4 | 0.6 |
| Damage/Benefit had due to National Credit Act | 40 | 2.2 | 0.6 |

In such occurrences, the debt becomes a burden for the consumer, which contributes to over-indebtedness. Respondents were also asked to give their overall estimate of damage/good the National Credit Act has had on their lives since its introduction into the credit market. There are similarities in results from 2008 and 2020. Of the 40 respondents in 2008, 29 (72.5%) pointed out it had been relatively good, while 10 indicated it had been extremely good. Only one respondent revealed it has resulted in serious damage to him/her. In 2020, the results were fairly comparable. The results clearly indicate that consumers have a positive view point towards the new credit regulator in South Africa.

Table 3: Logistic analysis – Predictors of perception about the National Credit Act

**Note: Correlation is significant at the 0.01 level

| Variables | DF | Chi-Square | Pr > ChiSq |
|---|-----------|--------------------|----------------------|
| Intercept | 2 | 0.89 | 0.6399 |
| Gender | 2 | <u>5.16</u> | <u>0.0758</u> |
| Age group | 2 | <u>5.05</u> | <u>0.0802</u> |
| Highest educational level achieved | 2 | 2.53 | 0.2819 |
| Marital status | 2 | 2.65 | 0.2657 |
| Employment level | 2 | <u>4.27</u> | <u>0.1185</u> |
| Salary range | 2 | 2.65 | 0.2661 |
| Number of credit account owned | 2 | 0.90 | 0.6366 |
| Level of knowledge about National Credit Act | 2 | 3.54 | 0.1707 |
| Likelihood Ratio | 56 | 36.58 | 0.9793 |

**Note: Correlation is significant at the 0.01 level

Both dataset of 2008 and 2020 were used to investigate the predictors of respondents' perceptions about the National Credit Act, and a logistic regression models was employed and seven variables were used, namely: (1) gender, (2) years worked, (3) marital status, (4) employment level, (5) salary range, (6) number of people being supported by the respondent, and (7) number of credit accounts owned by respondent, and the results summarised in Table 3. Judging the contributions of predictor variables at the 0.1 (10%) level of significance, the results reported in Table 3 reveal

that two variables have a significant effect on level of perception held by respondents – gender and age (the probabilities of the chi-square statistics for gender, 0.00758, and age group, 0.0802, are all less than 0.1 level of significance). However, the probability of the chi-square statistic for employment level, 0.1185, does not differ much from the 0.1 level of significance, suggesting that employment level has a slight effect on the level of perception about the National Credit Act.

5. CONCLUSION

Credit plays a vital role in the lives of most consumers in South Africa. The big problem is that people are inclined to over-commit themselves financially. Credit has become so easy to obtain that millions of South Africans are in financial difficulty because they have to pay for their house, car, electricity, and credit card, and they just do not have enough money to do this. The result is that many people are over-committed and end up being over-indebted. The research paper undertook a comparative analysis to study consumers' perception with reference to the NCA in 2008 and 2020. The findings revealed that there were no significant differences between the two sample groups that participated in study, as findings from the survey indicated that participants had a relatively good knowledge of the National Credit Act, and overall they had a positive perception towards the new credit regulator. This might suggest that consumers are aware of services offered by the National Credit Regulator and measures that are in place that serve as enabler for consumers to make informed decisions that relate to their financial well-being. When respondents were asked to indicate their level of perception about the National Credit Act, a greater percentage (55.0%) was of the view that it was a good policy that has really helped tame their expenses, while 16 (40.0%) said it was a good, but rather stringent policy. In addition, the findings highlighted consumers' positive view point towards that NCA, which is a clear indication that consumers are in support of the credit regulatory framework and in a way is an acknowledgement the Act was implemented to safeguard them from unscrupulous credit providers and curb their reckless behaviour when it came to credit purchases. This might indicate that consumers should focus on saving and reduce debt wherever they can. Consumer education is the only single cost-effective mechanism that provides and guarantees for consumer protection. Besides serving as a proactive way of protecting consumers against abuses in the market place, consumer education also serves as a preventive measure. For example, educated consumers will protect themselves and prevent exploitation in the marketplace. All governments should be urged to conduct programmes such as personal financial planning and credit management programmes to enhance consumers' understanding about the benefits and harmful effects of debts. Financial literacy is key for consumers as it aids development of a healthy and functional relationship with credit. The role of credit consumers' life is important; however, of more significance for consumers is having knowledge concerning the credit regulations and laws to ensure that they make informed decisions when entering credit agreements.

The study had limitations; firstly, the sample comprised of public sector employees only; and secondly, resource constraints, in particular financial constraints. Conclusions of the study can be linked to the larger population, and future research should include inferential statistics and a larger sample size.

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IMPORTANCE OF PRODUCT QUALITY IN CUSTOMER SATISFACTION: EMPIRICAL STUDY OF AN INFORMAL MICRO-FAST-FOOD RESTAURANTS

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ABSTRACT

The informal fast-food restaurant sector has been growing rapidly in South Africa over the previous years. The sector is important for the development of township economies, as it creates opportunities for self-employment and jobs in township communities. The quality dimensions such as food, service and environment setting of a food businesses are critical factors in customer satisfaction and continual business growth. The objective of the paper is to examine the importance of product quality on customer satisfaction in an informal micro-fast-food restaurant; product quality is important to the informal micro-fast-food restaurant's survival and growth. A survey was conducted on customers of informal micro-fast-food restaurants using a convenience sampling method. The collected data was transferred to the Statistical Package of Social Science (SPSS) for data analysis. The results showed how to enhance customer satisfaction and increase loyalty by means of improving product and service quality. The results further suggest that an incorporation of product quality management system by micro-business owners/managers is key to business growth. A well-constructed growth strategy will enable micro businesses to overcome direct and indirect competition in the marketplace, and accelerate business continued existence, development and long-standing success.

Keywords: Micro-business, fast-food sector, product quality, customer satisfaction, business growth, informal sector.

1. INTRODUCTION

The informal micro-fast-food restaurant (IMFFR) sector has been growing rapidly in South Africa over historical years, more specifically in townships. The sector is important for the development of township economies, as it creates opportunities for self-employment and jobs in township communities (Mhlanga, 2018; Petersen & Charman, 2018a; Petersen & Charman, 2018b; Knox et al., 2019). The rapid growth of the IMFFR in townships brings along a progressively multifaceted and highly competitive sector, according to Mhlanga (2018). In such environment, restaurant owners should have knowledge of the market factors and its effect on the eating place's performance, and more importantly its growth prospects.

In this study, the micro-fast-food restaurants sector in South Africa is normally situated in the informal economic-trading sector alongside the township roads and side-walks nearby eventful

transportation nodes and markets. They function in regions of dense foot movement and were public transport operate, as indicated by Battersby et al., (2016) and Knox et al. (2019), places were societies suitably purchase meals nearby their place of work or school, as they buy meals on the way to and from place of employment or education institutions in the daytime and into the late afternoon. The micro fast food restaurants cook, prepare and trade a variety of reasonably priced food-cuisines such as customary meals, snacks, roasted meat, deep fried foods, boiled eggs, refreshments and many others. Consumers are able to carry out these food-items with them to consume at home or consume the items at the restaurants where seating areas are provided, which often are inadequate. According to Musara and Nieuwenhuizen (2020), with a considerable sizeable percentage of this unregistered businesses that function in the food restaurant sector, the situation is challenging to quantify the complete proportions of the sector or the sum of the general public that is depended on the earnings that they produce. Nevertheless, it is projected that worldwide no less than sixty percent of working societies sustain their livings in the unregistered business sector, with figures going up to 86 percent in Africa, as analysed by Statistics South Africa (StatsSA) (2016), Medina et al. (2017) and International Labour Organisation (2018). In South Africa, 20 percent of the people are employed and earn their livelihoods in the informal sector (Rogan & Skinner, 2020; StatsSA, 2020), which recommends that the country's economy, while important and significant, is somewhat insignificant as compared to other countries, joined with extraordinary points of joblessness, with the authorized and extended rates of joblessness in the first term of 2020 at 30 percent and 40 percent respectively (StatsSA, 2020).

In the main, the informal sector offers occupation with below-par earnings as continued existence and casual personnel and informal micro-entrepreneurs operating at a survival phase, as established by Mahadea and Zogli (2018) and Etim and Daramda (2020), underlining the importance for the micro-enterprises to gradually step from survivalist to developmental levels in the business life-cycle. In order for the enterprises to survive, grow and generate greater profits, the micro-fast-food restaurants ought to be attentive to the following dimensions: price, service quality, food quality and physical environment (Kotler & Armstrong, 2010; Rothenberger, 2015; Zhang & Moon, 2020). Of these four dimensions, food quality is the most critical influential. Food quality, as constructed by Jahanshahi et al. (2011), Leek and Christodoulides (2012), Kharani et al. (2018) and Samudro et al. (2020) is important because the dimension can effect customers' insight of restaurant quality. More importantly, the food quality dimension of a restaurant is a critical determining factor of consumer fulfilment. Sustaining consumer fulfilment is very essential since it can be central to recurrence buying by consumers and improved sales. The purpose of the paper is to examine the importance of food quality on consumer satisfaction in the informal micro-fast-food restaurant; product quality is important to the informal micro-fast-food restaurant's survival and growth. The succeeding segment will commence with the literature analysis of the micro-food restaurants operating in the informal sector, and the product quality dimension of a restaurant as a crucial determinant of customer satisfaction and more importantly the effects of product quality in business growth. Section 3 presents the research method strategy implemented for the paper. This is followed by empirical findings in section 4, and conclusion and policy recommendations in section 5.

2. LITERATURE REVIEW

2.1 The importance of the unregistered economic segment

The unregistered economic sector is part of an essential contributor in correcting the socio-economic factors confronting several developing nations (Gurtoo & Williams, 2009; Webb et al., 2013; Autio & Fu, 2015; Williams & Youssef, 2015). The unregistered sector in South Africa contributes significantly in the direction of creating jobs in the country, more in particular people staying in townships and rural areas where unemployment is high. StatsSA (2015), in term three, indicated that as much as two million people in South Africans are hired in the unregistered economic sector. The sector contributes approximately 16.7% towards people that have actively working in South Africa. Similarly, Rogan and Skinner (2017) indicated that approximately 3 million community members in South Africa are hired in the unregistered economic sector, of whom roughly 1.5 million community members have their own business that they operate and manage. Furthermore, Rogan and Skinner (2017) indicate that the period between 2008 and 2014, unregistered economic business segment contributed approximately 18% to the South African employment total figures. The impact of informal sector start-up businesses to the gross domestic product (GDP) is also noteworthy, as analysed by Musara and Nieuwenhuizen (2020). Saunders and Loots (2005), in their previous research undertaking of the unregistered economic sector contribution to the GDP, established that the unregistered economic sector of start-up businesses were in the region of 9.5% that was contributed to the economic growth of South Africa through the historical date of 1967 to 2002. The South Reserve Bank (SARB) (1999) also projected that the aid of the unregistered economic division to South Africa's economic growth was roughly 7% in 1999. In sensibly latest assessments, StatsSA (2018) and SARB (2018) have projected that the unregistered economic segment adds up to 5.5% to the South African's economic development.

In general, the informal sector, comprising – of voluntary workers in family enterprises, casual wage employment, seasonal employment, home-based worker, employment for immigrants, street vending, are the means for survival for poor communities in townships and rural areas (Mahadea & Zogli, 2018), which is also widespread once there are sluggish growth and series of slump in the economy, consequently resulting in a decline in countrywide GDP as a result of external factors such as the Coronavirus pandemic that has adversely impacted the economy and people's livelihoods. Consequently, these have widened the output gap and have led to an expanding inequality in income distribution, as supported by Pettinger (2017). The inadequacies of government and the formal sector to provide employment for communities, in particular in the township and rural areas, have meant that the communities have been involved in the informal business sector from a point of need and existence (Petersen & Charman, 2018a; Etim & Daramda, 2020; Musara & Niewenhuizen, 2020). The informal micro-fast-food restaurants should be considered the grass roots of economic self-reliance and entrepreneurship with the township economy, as explained by Petersen (2020). Many of these enterprises, as explained by Botha (2012), represent an important financial income stream and subsidised food source for township communities who may otherwise be unable to access formal employment. The South African government has not thus far had a full comprehension the effect of the micro-environment on informal micro-fast-food restaurants, resultant in great restaurant catastrophe (Maumbe, 2012; Mhlanga, 2018). StatsSA (2016), indicated that approximately 62% of micro-fast-food businesses

become unsuccessful during their initial year of functioning, and 87% fail inside five years. The numbers are startling considering the importance of micro-businesses for the South African, as the economy struggles with a high unemployment rate (StatsSA, 2021).

2.2 The effects of product quality on customer satisfaction

Beyond the formal retail economy in the streets of Central Business Districts (CBDs) and shopping malls, as indicated by Ligthelm (2008), Charman et al. (2017) and Petersen and Charman (2018a), lies a real of business activity that is typified by micro-enterprises in rural-township settlements. These businesses are considered to be informal in that they generally lie outside the legal and institutional regulatory framework, and are generally unregistered (Statistics SA, 2010). The enterprises form part of the informal economy, and among these enterprises operating in the informal economy are micro-fast-food restaurants.

The micro-fast-food restaurants are facing intense competition from established fast food restaurants in South Africa (Nair, 2016). Amongst the recognized fast food restaurants is Kentucky Fried Chicken (KFC) which is the principal player with over 771 restaurants across the country (Sullivan, 2018; Masocha & Mandipaka, 2020). The IMFFRs are also facing strong opposition from main superstores, namely: Checkers, Pick'n Pay, Spar, Shoprite, and other retail chains (Insight Survey, 2016). The main superstores now deal progressively more popular ready-to-eat meals in their deli sections (Veitch, 2017). These competitive nature of the fast-food-chain industry present micro fast food business managers with a distinctive challenge regarding in what way to preserve productivity in a shrinking marketplace whilst offering consumers with great quality products and services (Mhlanga et al. 2014; Goko, 2017).

In order to compete successfully, the micro-fast-food restaurants must heed to quality dimensions namely: price, service quality, product quality, and physical environment. Of these four features, product quality is of paramount important to a restaurant. Product quality, as described by Trentin et al. (2012), is the capability of a product to accomplish its purpose. Sun (2011) stated that product quality is a product distinctive that offers the capacity to meet consumers' requirements. Furthermore, Khoironi et al. (2018) describe product quality as a product with its capability to satisfy the stated or implied customer requirements. For the purpose of this paper, product quality refers to food quality provided to customers by IMFFRs. Food quality can influence how customers perceive the micro-fast food restaurant and enhance customers' satisfaction levels (Seyedi et al., 2012; Cruz, 2015). According to Hanaysha (2016), food quality is very important in influencing consumers to feel satisfied and be fulfilled, and eventually result in consumer loyalty. In general, food quality denotes to numerous features containing food exhibition, flavour, menu variety, healthy, and freshness. If consumers are fulfilled with the food, they will repeat their purchase, demonstrate devotion to the restaurant, and act as voluntary agents for the micro fast food restaurants by telling other people of their experience (Nindani et al., 2018). On the contrary, should customers be dissatisfied with the product, as assessed by Nair (2013), it will have an adverse effect on the restaurant's image and probably their long-term survival. Additionally, the extent of fulfilment is reliant on the level to which the desires of consumers were fulfilled. Then to attain great consumer fulfilment, it is imperative for the restaurants to produce foodstuffs that meet the specification of its consumers, as derived by Suchanek et al. (2014), as

the key feature in gauging product quality is consumer fulfilment itself. Consumer fulfilment is significant for every sector, and consumer fulfilment has a noteworthy connection with productivity and business growth, as justified by Aftab et al. (2016). Furthermore, Jahanshadi et al. (2011) comprehended that fulfilled consumers are more certainly to replicate their buying and develop into devoted consumers. The results of Bowen and Chen's (2001) study substantiated the nonlinear and irregular association between consumer fulfilment and consumer faithfulness, and more importantly the importance of the correlation with business growth. Nevertheless, the association between fulfilment and devotion is anticipated to be reliant on the excellence of product produced.

In the IMFFR industry, every restaurant must strive to attain customer satisfaction as this leads to a stronger competitive position under intense competitive environment, as explained by Samudro et al. (2020), as these micro-businesses are not only competing with homogeneous businesses that sell foods having great similarities often using the same components, but are competing with established restaurants and supermarkets that have superior resources in general. Andersson and Karlstrom (2014) conclude that customer satisfaction is the most important factor in business survival and growth. It is a common business practice that the true value of a restaurant is the actual satisfaction a product brings to a customer

3. METHODOLOGY

3.1 Research design

A research design is the preparation of settings for the gathering and examination of data in a method with the goal of combining the significance to the research goal, as established by Kothari (2004). In addition, the research design is the theoretical structure within which research is conducted – a proposal for the gathering, examining and analysis of data. Secondary data research was embarked on with the purpose of establishing the theoretic basis upon which this paper is based, and a questionnaire instrument was used to collect data from customers of an IMFFR in Mahikeng, South Africa (Leedy & Ormrod, 2013), to gather their views concerning the quality of food offered by the restaurant. Positivism philosophy was applied in this paper because positivism philosophy assists in addressing the purpose of the paper, namely to examine the importance of product quality on customer satisfaction in a micro fast food restaurant, and to determine the relationship between variables. In addition, positivism also assists in determining the starting point for a research approach, which is adopted in the research process, thereby providing justification for the research method (Ritchie & Lewis, 2003; Harrison & Reilly, 2011). In addition, positivism according to Ritchie and Lewis (2003), Noor (2008) and Harrison and Reilly (2011) is based on the natural science model of dealing with facts, and is more closely associated with quantitative analysis.

3.2 Sampling method

A non-probability sampling method was preferred for this paper and this sampling method, as mentioned by Bernard and Ryan (2010) and Devlin (2018), does not make use of a random selection of population elements. A core characteristic of the non-probability sampling technique, as proposed by Ivankova (2015), is that samples are selected based on the subjective judgement

of the researcher, rather than random selection. Furthermore, a non-probability convenience sampling was used in this paper, and the target group was customers of the IMFFR situated in the township of Mahikeng that represented the research population with a predetermined sample size of 180 customers.

3.3 Research instrument

A survey instrument in a form of a questionnaire was used to obtain data from respondents. The questionnaire was designed only in English for consistency, and further questions were as short as possible and as simple to understand as possible. A questionnaire was used to gather customers' viewpoints and perceptions of the product quality offered by the restaurant. The questionnaire consisted of the following sections, starting with section (A) obtaining a demographic description of the research population and their level of association with the restaurant. This was followed by section (B), a series of questions concerning customers' insight concerning the restaurant's product and service provided. The following section (C) dealt with measuring the respondents' level of satisfaction with the restaurant in general. Lastly, section (D) dealt with general comments. In designing the questionnaire as research instrument to collect the quantitative data needed, validity and reliability were considered. For measuring the variables of this study in the quantitative method approach relevant items were selected from various authors (Sun, 2011; Trentin et al. 2012; Cruz, 2015; Khoironi et al., 2018) that were guided and aligned to the study's objectives and literature review section to form the measurement scales for the study. The measurement scales were used to measure the customers' perception concerning the product quality offered by the restaurant.

3.4 Data collection

A self-administrated survey was followed, and respondents were expected to read the questions, interpret what is expected and then indicate or write down their answers. Respondents were well informed about the purpose of the study and their rights before participating in the survey, and in addition, were informed that the results of the study were intended to be used for academic purposes. In light of the research objectives and nature of the study, fieldwork was conducted by distributing questionnaires to the business site by the researcher. The questionnaires were placed at the restaurant for respondents to complete whilst waiting for their meal or after consumption. Participation in the study was voluntary and data was collected for a period of four months. From the 180 questionnaires that were distributed to respondents for data collection, 132 were completed and then data cleaning process was undertaken to remove incomplete and incorrect data for analytical purposes and as a result only 104 questionnaires were analysable. The questionnaire was assigned numeric codes for analytical purposes.

3.5 Data analysis

Having collected the quantitative data, the next step was to analyse the data. All responses from the survey questionnaires were assigned numeric codes, as explained in the data collection process section, and subsequently inserted into the Statistical Package for the Social Science (SPSS) that included bi-variant, multivariate and regression analysis, as mentioned by Field (2013).

4. RESULTS AND DISCUSSION

4.1 Demographic profile

The findings comprise of the demographic description of the customers of an IMFFR and the customers' views on the quality of product offered by the restaurant and their level of satisfaction with the restaurant. Table 1 indicates that of the 104 customers who participated in the survey, 68.3% of customers were students, with 82.7% of participants being below the age of 30 years. From the 104 customers that participated in the survey, only 48 (46.2%) answered the question relating to their income level, and 26 out of 48 customers revealed that they have an income of R1 000 or less in a given month.

Table 1: Demographics of customers

| Age group (%) | Occupation status (%) | Income level (monthly) (%) | Number of times eating at a restaurant (%) |
|---------------|-----------------------|----------------------------|--|
| > 17 years | 6.7 | Students | 68.3 |
| 18–30 years | 76 | Employed | 16.3 |
| 31–40 years | 15.4 | Own business | 7.7 |
| < 41 years | 1.9 | Unemployed | 7.7 |
| | | Missing | 56 (53.8) |
| Total | 104 (100%) | 104 (100%) | 48 (46.2%) |

The results propose that the bulk of the restaurant's customers are students who have enrolled at the public university or colleges in Mahikeng, and have a monthly allowance of R1 000 or less received from their guardians or government student bursary scheme.

4.2 Product quality

Customers' preference for a particular product may be as a result of how the customer rated the quality and the degree to which it satisfied their stated needs, as suggested by Agwu and Afieroho (2016). Food quality can shape the perception of customers to be positive towards the micro-fast food restaurant as indicated by Hanaysha (2016), and ultimately result in customer loyalty. Table 2 points out that most customers were satisfied with the quality of food as it had a mean score of 1.45. However, as the customers have indicated that they were satisfied with the quality of food served, they were neutral and slightly dissatisfied with the restaurant's comfort and sitting arrangement as it has the highest mean score of 2.68. Subsequently, it has the highest standard deviation score of 1.176, which indicates that the data points are spread out over a large range of values, and the results proposes that customers had dissimilar views with regards to comfort and sitting availability of the restaurant; and this point is substantiated by a high median score of 3.

Table 2: Product quality

| Statement | N | Mean statistics | Median statistics | Std. dev statistics |
|--------------------------------------|-----|-----------------|-------------------|---------------------|
| Comfort and sitting availability | 104 | 2.68 | 3.00 | 1.176 |
| Availability of sauces and beverages | 104 | 2.26 | 2.00 | 1.005 |
| Cleanliness and hygiene | 104 | 1.91 | 2.00 | .883 |
| Menu has a good variety of items | 104 | 1.89 | 2.00 | 1.023 |
| The food meets the price value | 104 | 1.68 | 1.00 | .839 |
| Staff knowledgeable of items sold | 104 | 1.46 | 1.00 | .835 |

| Statement | N | Mean statistics | Median statistics | Std. dev statistics |
|---------------------------------------|-----|-----------------|-------------------|---------------------|
| The quality of food is excellent | 104 | 1.45 | 1.00 | .695 |
| The food is served hot and fresh | 104 | 1.41 | 1.00 | .719 |
| The food is tasty and rich in flavour | 104 | 1.39 | 1.00 | .703 |
| Friendly service | 104 | 1.36 | 1.00 | .723 |

As shown in Table 3, customer loyalty has no relationship with value for money; the result obtained is -0.008, which is close to 0. If the correlation coefficient is 0, no relationship exists between the variables, whereas, the correlation between food quality and value for money is positively significant as the value is close to 1. There is a positive relationship between the variables, and this means that if one variable moves a given amount, the second moves proportionally in the same direction. A positive correlation coefficient less than 1 indicates a less than perfect positive correlation, with the strength of the correlation growing as the number approaches 1. It is important to note that customers of the restaurants are well satisfied with the price of the food as they get value for their money. The results will suggest that the food offered

Table 3: Correlation of variables – Pearson correlation coefficient

| | | Pearson correlations | | | |
|-------------------|---------------------|----------------------|-----------------|------------------|--------------|
| Variables | | Occupation status | Value for money | Customer loyalty | Food quality |
| Occupation status | Pearson correlation | 1 | .088 | .097 | .153 |
| | Sig. (2-tailed) | | .375 | .328 | .120 |
| | N | 104 | 104 | 103 | 104 |
| Value for money | Pearson correlation | .088 | 1 | -.008 | .631** |
| | Sig. (2-tailed) | .375 | | .934 | .000 |
| | N | 104 | 104 | 103 | 104 |
| Customer loyalty | Pearson correlation | .097 | -.008 | 1 | .104 |
| | Sig. (2-tailed) | .328 | .934 | | .295 |
| | N | 103 | 103 | 103 | 103 |
| Food quality | Pearson correlation | .153 | .631** | .104 | 1 |
| | Sig. (2-tailed) | .120 | .000 | .295 | |
| | N | 104 | 104 | 103 | 104 |

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

at the restaurant is reasonably priced, and can be afforded by its customers, specifically as the greatest number of its customers are students who have a low monthly income allowance, as displayed in Table 1.

4.3 Measurement of overall satisfaction

Customer satisfaction is the result of the correlation between a customer’s expectation and experience. As observed from Table 4, the customers’ overall satisfaction levels were high as it had an aggregate mean score of 1.90, which indicates that an overwhelmingly majority of customers from the study were satisfied with the performance of the restaurant. In addition, the satisfaction

Table 4: Measurement of overall satisfaction

| Statement | N | Min | Max | Mean statistics | Std. dev statistics | Std. error mean | Skewness |
|-----------------------------------|------------|----------|----------|-----------------|---------------------|-----------------|--------------|
| Quality of food | 104 | 1 | 5 | 1.67 | 1.065 | .104 | 1.869 |
| Quality of service | 104 | 1 | 5 | 1.67 | 1.028 | .101 | 1.953 |
| Setting and environment | 104 | 1 | 5 | 2.47 | 1.292 | .127 | .464 |
| Product price | 104 | 1 | 5 | 1.80 | .969 | .095 | 1.397 |
| Overall satisfaction level | 104 | 1 | 5 | 1.90 | 1.09 | .110 | 1.420 |

level with the quality of food and service both had a mean score of 1.67, and this indicates that the majority of the customers were satisfied. However, it is important to note that the results further revealed that customers were relatively neutral concerning the setting and environment of the restaurant. The more satisfied the customers are with the quality of food and overall performance of a restaurant, the more likely they will repeat they purchase, become loyal customers, share their positive experiences, recommend restaurants to their friends and family, and share their good experiences online with strangers. Specifically, IMFFRs are reliant on positive word of mouth, existing customers disseminating information to other people or prospect customers on their encounter with the restaurant, more importantly because micro-businesses do not have the advertising budget of established fast-food brands. In addition, Zhong and Moon (2020) pointed out that customers are increasingly caring about what, how, and where they eat, so competition between established fast food restaurants and IMFFRs is inevitable. In order to compete with established fast food restaurants and generate greater profits, IMFFRs must pay more attention to food and service quality, the physical environment, and product pricing. These quality dimensions of a IMFFR are crucial determinants of customer satisfaction, and from the four factors, food quality is the most critical influence to customer satisfaction.

5. CONCLUSION

These restaurants are essential for township economies in South Africa, as they provide community members an opportunity to start their own enterprises and be economically self-reliant, and typically will create employment for those members of the community who might not acquire jobs in the registered business market segment. In general, the informal sector is important to the country’s economy as it significantly contributes towards the total employment in the country. The purpose of this research was to examine the importance of product quality on customer satisfaction in an informal micro-fast-food restaurant. For the purpose of this paper, product quality refers to food quality delivered to customers by IMFFR. Food quality can influence how customers perceive the micro-fast food restaurant and enhance customers’ satisfaction level. Food quality refers to several aspects that include food presentation, taste, menu diversity, healthiness, and freshness. The findings revealed a mean score of 1.45 for quality of food offered by the restaurant, which clearly indicates that customers were satisfied with the quality of food. In addition, customers who participated in the study indicated

that they were very satisfied with the taste and rich flavour of the food. However, customers had differing views concerning the seating and comfort of the restaurant as the statement had the highest standard deviation score as compared to others in the product quality section.

The present article has been written mainly to examine the importance of product quality on customer satisfaction, and therefore the importance of product quality management is a continuous process because (1) customer taste, preference and behaviour change, for example, customers becoming more health conscious and as a result seeking healthy diet meals, (2) emergence of substitute goods, and (3) threat of competition. Therefore, the results have implications for restaurant managers – in order to enjoy customer loyalty, increased market share and maximise their business revenue, the quality of the product must be constantly improved upon. In addition, the restaurant should adopt a learning approach to gain knowledge and be committed to customer satisfaction through continuous improvement such as the improvement of the ambiance of the restaurant, as it is crucial to create an atmosphere in the restaurant conducive to the type of food the restaurant serves, as well as the type of customers the restaurant attracts. A need exists for further research into the examining the importance of total quality management in the growth of informal micro-fast-food restaurants.

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ADOPTION OF ONLINE MARKETING RESIDENTIAL REAL ESTATE AGENCY IN MALAWI: A CASE STUDY OF BLANTYRE CITY

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ABSTRACT

Online marketing has become a significant part of the marketing mix. Real estate companies are using search-engines, social media and webpages to market real estate services. Worldwide, this is being done at the expense of a reduced patronage on other advertising media for example print and radio. This study sought to investigate the extent to which the Malawian real estate sector has adopted online marketing. Specifically, the study assessed how much online marketing is being used in the real estate industry; examined the effectiveness of online marketing and evaluated how much real estate agents are willing to spend on online marketing. The study employed a non-probability purposive sampling technique to select real estate agency firms registered to practice estate agency in the country. Close ended and open ended questionnaires were used to collect data from the research participants. Data was analysed using Microsoft Excel and Google Forms to quantify variables and presented by descriptive analysis using figures and tables, qualitative data was analysed using thematic analysis. The study used purposive sampling to sample 10 estate agent's firms in the city and only 6 firms responded to the questionnaire. The study found that the estate agent companies had some form of online presence which they use for marketing. Over the 5-year period under study, the research reveals a relatively constant expenditure on online marketing due to the fairly low costs of such media. Furthermore, the study found that residential real estate sales have increased since 2017. The study also revealed that to maximise the benefits of online marketing, it is imperative to use paid online advertising. Real estate agency has embraced online marketing at different magnitudes and over 75% clientele is being reached out. However, despite online marketing being cheaper, traditional marketing still has a role to play to achieve absolute success in agency. The study recommends a combination of online promotion and traditional media to complement it. Furthermore, estate agency firms could make use of paid advertising as it is precise in customer targeting.

Key words: Real estate; Estate agency, Online marketing, Advertising, Malawi

1. INTRODUCTION

Lack of centralised real estate market place like that of the stock market has led to a higher emphasis on marketing and selling of property to inform the demand side of the property market (Cadman & Topping, 1995). Over the years, the medium for marketing and selling real estate

has drastically moved to the internet, with a slightly decreased patronage of other advertising mediums for example, the print media (Wilkinson & Reed, 2008). Today, online marketing has become an important part of the marketing mix with search engines, social media profiles and web pages being used to strengthen the image of real estate agencies and for better communication with customers (Dumpe, 2015). In the study that was assessing internet usage in Malawi in 2014, it was estimated that only 6.5% of the total population had access to the internet countrywide (NSO, 2014). However, MISA Malawi (2019) found that this number had increased to 13.1%. This means, in 4 years' period, the nation's internet access had doubled. Elsewhere, such an increase in internet usage has led to more home buyers using the internet to help them make purchase decisions (Sandhu, 2016). Dumpe (2015) suggests that internet has become an effective marketing tool and is used by most real estate buyers to help in making decisions. This presents an opportunity for companies to reach out to a technologically savvy audience that is continuously interacting with the World Wide Web for various interests (Kasatria, 2019).

Real estate agency, being market orientated and fully conversant with all aspects of the market (Wilkinson & Reed, 2008) has since picked up online marketing as it always has utilised all potential marketing features so as to sell properties as the convenient time possible (Dumpe, 2015). As a result, real estate agency in Malawi is expected to capitalize on the increase in internet usage numbers as well as find this as a platform the industry can use to reach clients and potential customers. Despite such being the case, literature is dearth on the online real estate agency marketing in Malawi. Therefore, this study sought to explore the adoption of online marketing on residential real estate agency in Malawi.

2. LITERATURE REVIEW

Agents either work for the seller or the buyer and advise clients on how to price the property and prepare it for sale or rent or search for available properties that match the buyer's price range and wish list (Investopedia, 2003). Where the agent represents the buyer, this is known as buyer agency; and when he represents the seller, it is known as seller agency but depending on the legal jurisdiction, dual agency which is where an agent represents both the buyer and the seller is another form of agency (StudyCom, 2019).

The creation of agency may be expressed or implied in that implied agency is created by the words and acts of a principal or agent operating under the guise of a formal agreement while expressed agency is created by oral or written agency agreement (StudyCom, 2019). However, estate agency appointment largely depends on the circumstances as well as the type of the real estate involved and the likely market to dispose of the property (Cadman & Topping, 1995).

2.1 Marketing and methods of marketing

Marketing refers to an advertisement, event or other activity used to advertise a product or a service or the use of these advertisements, events etc. (Cambridge University, 2019). To avoid wasting time and money resources, marketing should be aimed at the target market with a clear understanding of it including its needs (Cadman & Topping, 1995). For real estate, marketing is done by an agent or a team of agents (Wilkinson & Reed, 2008). Any marketing targets

potential buyers and renters and according to Cadman & Topping (1995) and Wilkinson & Reed (2008); the following are the various methods of marketing:

2.2 Site boards and site boardings

As soon as the developer acquires a site, a site board needs to be erected. It is an effective and inexpensive way of communicating the presence of a real estate development even before there is any sign of it (Cadman & Topping, 1995). On the board are the details of the developer and final details of the development.

2.3 Particulars and Brochures

Particulars are meant to be follow ups to address enquiries that may come in response to the site board erected (Cadman & Topping, 1995). These particulars are meant to help the target market understand better what is on offer with the development. Particulars include such information as location of the property, dimensions of the property and specifications, services available and nature of the land interest (Wilkinson & Reed, 2008). Brochures on the other hand include maps, plans, photographs and a brief specification (Cadman & Topping, 1995).

2.4 Advertisements

Adverts are either aimed directly at occupiers or indirectly through their agents and are placed usually in newspapers (Cadman & Topping, 1995). Their placement in the print media, however, varies depending on readership and the competition by other advertisers for the space in that medium (Wilkinson & Reed, 2008). An advertisement includes such information as the type of property, approximate size, location and whether the property is for sale or rent and contact details of the owner or his or her agent (Cadman & Topping, 1995).

Other methods of marketing include launching ceremonies, show suites and offices, public relations etc. (Cadman & Topping, 1995).

2.5 Online marketing

Online marketing is the use of online services to deliver paid for messaging (Adshead, Forsyth, Wood, & Wilkinson, 2019). A successful real estate development must have a presence online which for some developments includes having a website where updates about the progress of the development are posted (Wilkinson & Reed, 2008). Online videos can show how the project will look upon completion and online marketing is also used to give a chance to potential buyers or renters who may not be able to visit the property to explore the project through a virtual tour (Hanks, 2019). Online marketing is also unique in that it can store vast amounts of information that can be searched and disseminated in a cost effective manner which is accessible virtually by everyone on the internet (Sandhu, 2016). It is also interactive and able to give out information on demand (Peterson, Balasubramanian, & Bronnenberg, 1997) and provides a superior perceptual experience to a printed catalogue (Sandhu, 2016).

The first ever banner ad appeared in 1994 and managed to hit 44.4% of click throughs (Chi, 2018); a figure which is meagre considering the large number of people online nowadays. In 2017, for example, the UK estate agency industry spent over £11 billion in online marketing;

a figure representing a 14% annual increase and also signalling that online marketing has overtaken other forms of advertising (television, press, radio, cinema and outdoor) combined (Adshead, Forsyth, Wood, & Wilkinson, 2019).

2.6 Types of online advertising/marketing

Depending on form and function of advertising and how it appears to consumers, online marketing is either search, display or classified ads (Adshead, Forsyth, Wood, & Wilkinson, 2019).

2.7 Search Advertising

Search advertising is paid for listing in search results such as sponsored or promoted listings on Google (Adshead, Forsyth, Wood, & Wilkinson, 2019). Businesses that place ads in search results pay a fee every time somebody clicks on one of their ads (Word Stream Advisor, 2019). It is effective as it is based on the explicit need of the users, rather than on implicit information about what they might be after (Wlosik, 2018). Advertisers select a list of keywords that are relevant to their company or products, and can bid to have their ad show when someone searches for those words or phrases (WebFX, 2019). Search ads have a lot of benefits including more targeted audience and the ability to only pay when someone engages with your ad but choosing the right keywords requires a strong understanding of your audience and chosen platform (ibid, 2019).

2.8 Display Advertising

Display advertising is a form of advertising that conveys a commercial message virtually using text, logos, animations, videos, photographs or other graphics (Kasatria, 2019). It is available in four formats: banner, native, sponsored content, out-stream video and in-stream video (Adshead, Forsyth, Wood, & Wilkinson, 2019). This appears in specifically designated areas of a website or social media platform (Jacob, 2018). A banner display advert is shown in standard display units on webpages or in apps and include images and animations whereas a native display advert is integrated into the surrounding content, predominantly in feed advertising such as promoted posts in social feeds or paid for recommendations on webpages. Video advertising is for example the ad units appearing in websites or a short video ads shown before YouTube videos (ibid, 2019).

2.9 Classified Advertising

Classified advertisement is a small message or advertisement that is placed in newspapers, magazines or periodicals under specific headings, also called classifications, in a separate section and which recently have started appearing on websites and social media networks (Bhasin, 2018). They may be paid listings such as recruitment, property, cars and services, etc. Depending on the type and cost of the ad, they are column wide, may or may not have graphics and can be of any size in height and in width, the minimum of which is 3 centimetres (Fang, Zang & Qiu, 2017).

2.10 Advantages of online marketing over traditional marketing

Sandhu (2016) gives the following advantages of online marketing:

- It is cost effective because there is no physical infrastructure needed to set up this kind of promotion and one is still able to reach maximum target audience at minimal cost.
- It has a vast reach where online promotion can reach a lot of people than the traditional media.
- Most internet platforms offer effective targeting tools that help to minimise the risk of promoting real estate to the wrong audience.
- Everything can be tracked and illustrated to indicate traffic growth, leads and sales conversions from one's promotion.
- A regularly updated online presence can help maintain people's interest and help in conveying how you offer the best value to your clients without the traditional advertisement and word of mouth and or personal relationships with clients.

2.11 Online marketing in real estate agency

An agent's ability to sell a home is magnified if you are able not only to list a property online but also market it there (Johansson, 2016). In the US, for example, over 70% of homebuyers in 2018 found their home online (Hart, 2019). It is not that traditional marketing is dead but digital marketing fills a void and appeals to an audience that physical marketing alone cannot reach (Johansson, 2016). Real estate adverts are used, then, to promote realtors and real estate companies and they come in many forms including text, image and video (Hart, 2019). The online marketing of real estate involves advertising, public relations and sales promotion (Grover, 2012). The success of which results in the sale or renting out of a property (Dumpe, 2015).

3. METHODOLOGY

3.1 Research design

The study used mixed methods i.e. qualitative and quantitative data (Saunders et al., 2016; Kothari, 2004). Primarily, the study used quantitative data to understand how the estate agents had adopted and used online marketing in residential real estate agency in Blantyre City, thereafter qualitative data on the opinions of residential estate agents had on the future of online residential estate agency marketing in Malawi.

3.2 Sampling method

The study used purposive non-probability sampling to identify the participants (Kumar, 2011). The study targeted major real estate agency companies in Blantyre city since these were deemed appropriate for the study due to their knowledge of the estate agency industry in the city. Estate agency is a regulated profession in the country hence the study used only registered estate agent

firms which were 10 in total and only 6 responded and returned the questionnaires.

3.3 Data collection

Study data was collected by use of questionnaires which had open ended and closed ended questions (Saunders, 2016). Close ended questions used to restrict respondents on the optional answers whereas open ended questions were used to give respondents freedom to express opinions on the subject matter.

3.4 Data analysis

Quantitative data was analysed using Microsoft Excel and Google Forms to quantify variables. Qualitative data was analysed using thematic analysis. Themes generated on the participants' adoption and use of online marketing in residential real estate agency were generalized, interpreted and triangulated by an analyst to check for consistency. Emerging themes were analysed inductively (Creswell, 2013; Tranfield et al., 2005) to map out a general position of online marketing in residential real estate agency in Blantyre city, Malawi.

4. RESULTS AND DISCUSSION

4.1 Demographic data

Study participants consisted of the registered estate agents. Just like elsewhere, estate agency is a regulated profession where one would not practice before being registered with the Land Economy Surveyors, Valuers, Actioneers and Estate Agents Act chapter 53:08 of the Laws of Malawi. However, the estate agency sector in Malawi is highly proliferated with unregistered and “illegal” estate agents who could not make it to this study by virtue of being unregistered. These “illegal” estate agents are however responsible for a huge number of transactions and conveyances taking place in the estate agency market. Therefore, the study targeted estate agents who were registered with the Land Economy Board to practice as Estate Agents in the country. A total of 10 questionnaires were sent out with a response rate of 6 representing 60%. Saunders et al. (2009) point out that a response rate of 45% is acceptable for analysis hence study's 60% response rate qualifies for the analysis of the findings of this study. Table below represents the respondents' profiles:

Table 1: Respondents' demographics Source: Field Data (2020)

| Respondent | Age | Highest qualification | When started practicing |
|-------------------|------------|------------------------------|--------------------------------|
| RN1 | 43 | Bachelor's Degree | Earlier than 2015 |
| RN2 | 69 | Bachelor's Degree | Earlier than 2015 |
| RN3 | 24 | Bachelor's Degree | 2019 |
| RN4 | 27 | Bachelor's Degree | 2015 |
| RN5 | 35 | Bachelor's Degree | Earlier than 2015 |
| RN6 | 29 | Bachelor's Degree | Earlier than 2015 |

The study found that there was no relationship between respondents' age and their adoption of technological innovations like the online medium for estate agency marketing over

traditional media and the relationship between the respondent’s education and use of online marketing. Similarly, the study failed to identify any relationship between the agents’ experience and use of online marketing. All the respondents used online marketing regardless of whether they were novices or had been practising estate agency for a long time. This agrees with Dumpe (2015) who found that due to an increase in number of internet usage, online marketing mix has become an important tool to strengthen the business image and enhance better communication with customers.

4.2 Preferred online marketing platform

On the question of how much social media, search engines and websites factor into the online marketing strategies of residential estate agency. The study found that Facebook and WhatsApp were the most preferred choices of online estate agency marketing platforms considering the huge patronage the platforms enjoy as stipulated by Simon Kemp report (2020) that since the goal of marketing is to reach as many potential buyers as possible, hence using Facebook and WhatsApp is ideal for online marketing. This agrees with Wilkinson and Reed (2008) and Dumpe (2015) who observed that real estate is market oriented and estate agents would utilise all marketing features to demise as many properties as possible.

On the other hand, the study found that use of websites is joint second with WhatsApp. This can be attributed to an increase in number of social media usage in the country as observed by Misa Malawi (2019) report which is believed to be driven by affordable social media bundles. However, to browse specific webpages for example visiting estate agents’ webpages requires unbundled internet which is expensive. However, the study did not delve into why the estate agents had decided to adopt webpage marketing in such numbers. As the figure shows, 100% of the respondents have some sort of online presence. Of the 6 estate agent firms, 5 have webpages, Facebook account pages and WhatsApp accounts while only 1 had an Instagram account.

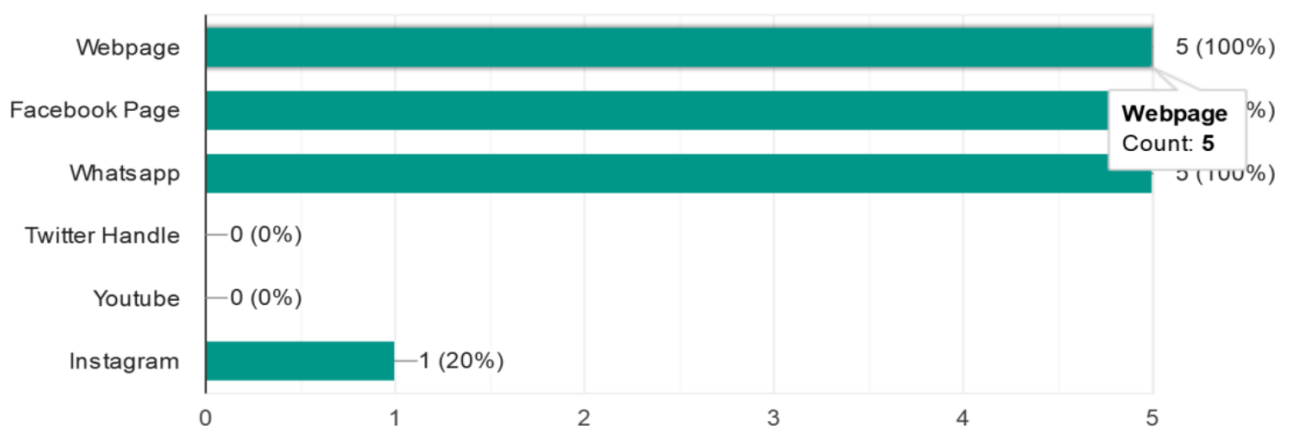


Figure 1: Online presence of the estate agency firms

On the question to what extent have the estate agency firms adopted the use of online marketing; how effective it is and how much is spent on online residential estate agency marketing. The study found that not only has online estate agency marketing been adopted by residential estate agents in the study area, but the use of these online marketing tools has been increasing tremendously.

The study found that all the estate agent firms had adopted online real estate marketing to reach out to their clientele easily due to the changing technological world and the significance of the search engines, social media and websites have on the marketing mix. Furthermore, estate agents understand that increased internet usage numbers had led to more homebuyers using the internet which helps them in decision making. Additionally, it was found that adoption of online marketing has been necessitated due to the need to reach out to a tech savvy audience that is continuously interacting with the World Wide Web for various interests as Kasatria (2019) observed that there is a large market audience which cannot normally be reached by traditional advertising alone.

4.3 Budget share of the various online platforms being used on residential real estate agency marketing in the City

On the question to establish how much of the estate agents’ total marketing budget is spent on online marketing as compared to other means of marketing for example traditional marketing;

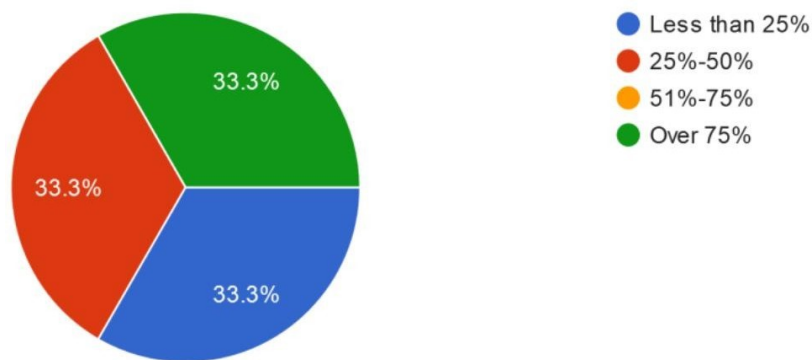


Figure 2: Expenditure on Online Ads as part of total expenditure on marketing

According to the figure above, the study found that only 33.3% of the respondents spent over 75% of their marketing budget on online platforms. On the other hand, two thirds of the respondents, spent between less than a quarter to half of their budgets on online marketing. The study further found that this was as a result of online marketing being relatively cheaper as compared to traditional marketing. Therefore, those that use both online and traditional forms of marketing tend to spend more on traditional marketing than they do on online marketing. One respondent categorically stated that;

“[their] online marketing platform was mainly Facebook, WhatsApp and [their] webpage. The webpage, [however], has not been in use for sometime now... WhatsApp advertising is free and only Facebook has paid advertisements. This means, 90% of the money the firm budgets for marketing is used for Facebook adverts alone. But even then, the amounts [the firm] spends on Facebook Ads cannot be compared to the hefty sums the firm spends on traditional ads.”

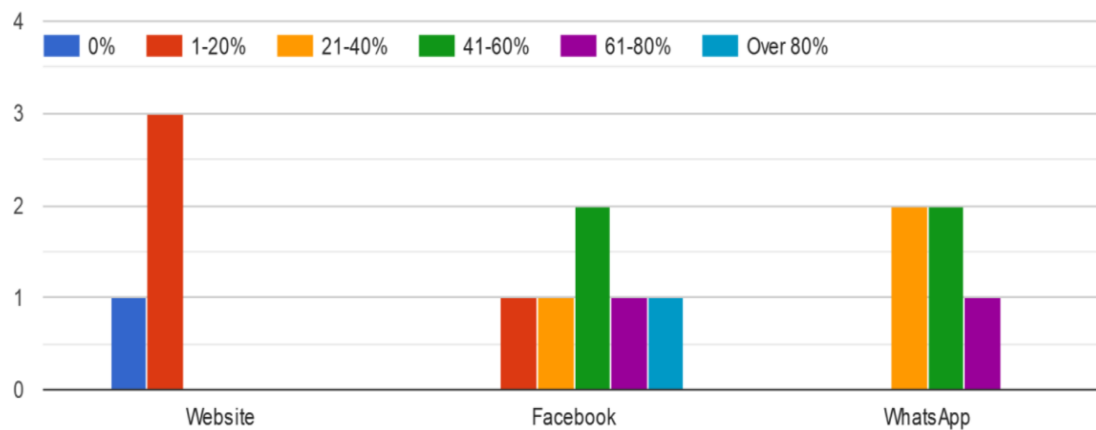


Figure 3: Preferred Platforms for Online Promotion

In terms of the total marketing budget, the study found that online marketing received a smaller portion of the budget. However, the study found that there was no any estate agent firm that employed search advertising. Additionally, since WhatsApp does not have paid advertisement platforms like Facebook and Instagram, most of the funds budgeted for online marketing were directed towards Facebook and Instagram hence most of the online marketing funds are spent on display marketing. This agrees with Adshead et al., (2019) who found that online marketing has now surpassed traditional marketing methods hence a huge chunk of the advertising budget goes to search advertising.

In addition, apart from the webhosting fees that agents must meet for their webpages to remain online; there is not much spent on website display marketing. Sandhu (2016) found that with online marketing, one’s advert can be analysed and illustrated in terms of traffic growth, leads and sales conversions. This study found that such analytics (which are also available for websites) have helped agents to limit their display marketing to social media. Furthermore, the study found that agents do not use their websites for display advertising because there is fewer traffic on websites than on social media; a phenomenon that may be compounded by the cost of unbundled internet in Malawi.

However, as opined by one respondent, the costs of online marketing are nowhere near those of traditional classified advertising. Sandhu (2016) calls this the cost effectiveness of online marketing which has resulted into most of the marketing budgets agents make being spent on classified (traditional) advertising than on online advertising. This agrees with Johannson (2016) that while online marketing can reach buyers that normally traditional marketing would not; traditional marketing is not dead. Unlike Adshead (2019) who finds UK online marketing to have surpassed traditional marketing, Malawi’s online marketing is still growing

4.4 Change in online marketing usage by residential real estate agents over the past 5 years in Blantyre City

The study found that there has been a continuous increase on the use of online marketingsince the respondents started using the platform. This was attributed to the increase in number of

internet users in Malawi over the years (MISA Malawi, 2019). However, 1 company indicated that there had been less efforts put on online marketing platforms as the company found its customer base elsewhere other than online platforms.

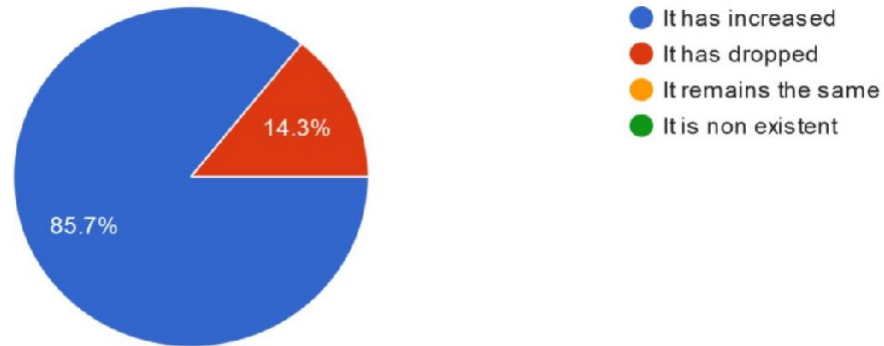


Figure 4: Change in online promotion since Agency started using the platform

4.5 Changes in use of online ads since 2015-2019

On the question of how the estates agents have adopted online marketing under the period of study, the study found that online marketing started on a low elb. However, midway through the period, most estate agents adopted the marketing model and saw increased sales of over 75% of all their listed residential properties to online buyers. This can be attributed to the increased uptake of internet usage that was witnessed in the country during the same period. This finding is similar to Hart (2019) who reported that 70% of US homebuyers found their homes online. However, from the findings presented, agents have seen at least a doubling of conveyances to buyers that saw their online ads. From 2017 to 2019, residential real estate agents in Blantyre have moved from selling or renting at least a quarter of all their listings online to selling or renting out over three-quarters of the same. This study found that this is due to the vast reach of online marketing as compared to traditional marketing as well as the effective targeting online marketing employs which reduces the risk of advertising to the wrong audience; two factors Sandhu (2016) addressed at length.

4.6 Year on year sales

As can be seen from figure 5, the study found that there had been dwindling sales on properties marketed online between 2015 and 2016. However, the study found that sales picked across the board from then on. In 2017, one third of the respondents selling or renting out over 75% of their properties to buyers or renters who saw their online adverts. This figure is up from the 16.7% of the respondents that did the same in 2015 and 2016. While this number remains constant until 2019; there are changes in the numbers elsewhere. This constant 16.7% attributes their high sales numbers to utilisation of paid advertising which allows them to reach more customers than their counterparts who only use free advertising.

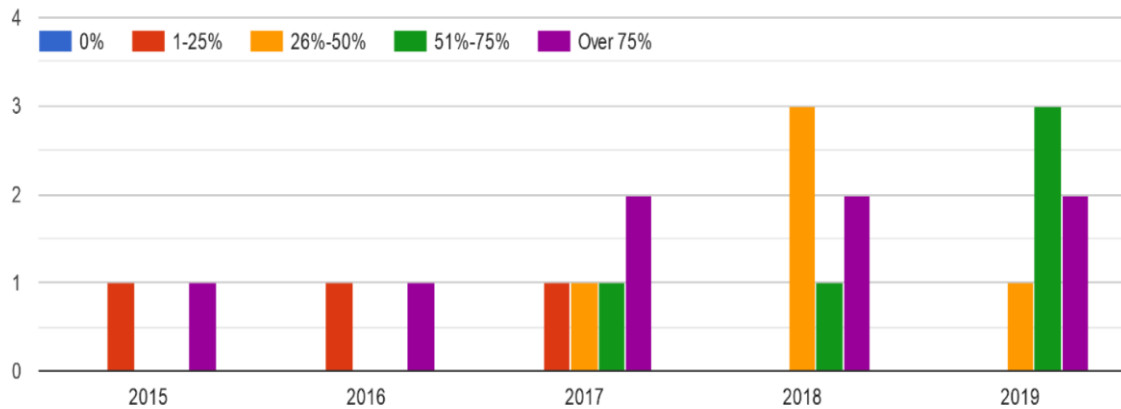


Figure 5: Sales to Online Customers 2015-2019

The study also found that in 2017, 17% of the respondents had sold or rented out between 26- 50% of their properties to online customers, a number that increased to 50% in 2018 and dropped back to 16.7% in 2019 when the other 33.3% seem to have started selling more. On the other hand, 16.7% of the respondents sold or rented out between 50-75% of their properties online in 2017 and 2018 the number which increased to 80% in 2019.

4.7 Future of residential real estate online marketing

On the question of prospects of online marketing in the estate agency industry, the study found that all the study participants would increase their online marketing as their presence on the online platforms had increased their business opportunities and this was like a key performance indicator which would affect the business in a positive way. As illustrated by figure 5 above, all of the respondents maintain that they will increase the use of online promotion in residential real estate agency. This is due to:

“[effectiveness] of online promotion” – Respondent 1,

“Increase in number of internet users [in the country]” – Respondents 2,3,4 and 5 and “[the convenience of] online ads [and] that online ads enhance [agent’s] popularity and boost business.” – Respondent 6

5. CONCLUSION

The study has shown that it is imperative for residential estate agents to have an online presence and the mostly preferred and visited online marketing tools are Facebook page and WhatsApp as all the estate agents reached over 75% of their customers through these platforms. Additionally, the agents could take advantage of paid advertising as the study found that the estate agents reported sales of over 75% year on year from 2017 as a result of using paid advertising. Furthermore, the estate agents must still maintain a sizeable number of traditional marketing strategies as the study has shown that while online marketing is cheaper and effective, most of the respondents do not use online marketing only. They maintain a fair percentage of ads on offline forms of advertising. Therefore, despite traditional marketing being expensive, it is still vital in as far as marketing is concerned. Lastly, the study has shown that online marketing requires patience as not at all the times does it reach to the effective

customer targets as sometimes the business is affected due to different economic conditions.

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EVALUATING PROPERTY ASSET PERFORMANCE FRAMEWORKS: CASE OF A SCOTTISH HOUSING ASSOCIATION

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ABSTRACT

Regularly, social landlords commission condition surveys to assess the performance of their stock to inform asset management decision making in order to achieving optimal asset performance standard and keep the housing stock in allowable standard to meet social housing requirements. Despite that, social landlords have expressed dissatisfaction with stock condition surveys because of the 'inappropriate' approaches used in condition surveys. This study sought to evaluate property asset performance framework of a systematically important Scottish Housing Association with respect to the stock condition survey it commissioned. The study used systematic review of literature to identify themes which was followed by face to face discussions with the top management officials of the Housing Association. Thereafter, semi- structured questionnaire was administered to the officials to solicit views on how stock condition survey influenced asset management decision making at the Housing Association. The study found that there are high levels of dissatisfaction with stock condition survey outcomes due to *'inappropriate frameworks'* used in carrying out the surveys. This has resulted into inaccurate stock information which has brought challenges in property asset management decision making since stock condition data is used as a 'project management tool'. It is hereby recommended that there be a mutually agreed stock condition survey approaches between RSLs and condition survey consultants. The housing Association should incorporate strategic management plans in the management of its housing stock since that is where its business and wealth lies and the Association should integrate its property asset information management system to inform robust asset management.

Keywords: stock condition survey; social landlords; asset performance; asset management; strategic asset management; decision making

1. INTRODUCTION

Asset management includes the management of infrastructural assets. Different scholars have defined asset management differently for example Ngwira & Manase (2016); Ngwira et al., (2012); Phelps (2009); Gruis et al., (2004); Gruis and Nieboer (2007); Ngwira (2015); Rasolonjatovo et al., (2015); RICS (2012); RICS (2016). However, Hanis (2012, p.34) defined asset management as *"a systematic, coordinated and continual improvement process to optimally and sustainably manage the lifecycle of physical assets and its systems in achieving organisational objectives and strategic plans through asset availability, safety, reliability, and longevity of the assets with the control of performance measurements"*. The seemingly different but conceptually similar definitions emanate from the authors' institutional, professional and country backgrounds. This study focused

on real property assets (buildings aspect) only hence 'asset management' in this respect refers to real property assets.

All Registered Social Landlords (RSLs) and Local Authorities (LAs) are mandated to keep their housing stock to a minimum allowable standard. This is ascertained through stock condition surveys. This is an exercise 'commissioned to assess the state of repair and condition of an organisation's building stock in connection with preparation of maintenance programme' (Wamuziri, 2013, p.186). "Asset management is associated with best practice maintenance arrangements such as planned maintenance" (Ngwira et al., (2012, p.113). To ensure compliance, the Scottish government established a watchdog, Scottish Housing Quality Standard (SHQS) to enforce housing stock quality standard (Wamuziri, 2013; Jones et al., 2011). In that regard, asset information that informs critical decision making is needed. Therefore, it is necessary to improve technical performance of the property asset by assessing asset performance system (Hanis, 2012).

Recently, social housing sector has moved from being predominantly led by LAs to one with RSLs competitively controlling larger market share. (Jones & Cooper, 2007; Soetanto and Davies, 2010). To improve performance and inform decision making, stocks' performance ought to be assessed of their standard to keep it relevant, in allowable and usable condition to reduce the rate of disrepair (van Overmeeren & Gruis, 2011). This puts stock condition surveys at the centre of property asset management decision making. However, literature indicates that RSLs are dissatisfied with stock condition surveys (Chapman, 1999; Kempton et al., 2002; Jones and White, 2007; Jones and White, 2012). Therefore, this study is founded on the premise of inadequacy of stock condition surveys at one of the RSL-HA with the background that the HA commissioned condition survey of its housing stock to assess its performance to inform decision making.

2. LITERATURE REVIEW

2.1 Social housing status in the UK and Scotland

Housing "accommodates people to live in a suited place..." (RICS, 2012, P.11) whereas social housing is "that which is administratively allocated on the basis of need" (Scanlon, et al., 2014, p.1). As a way of privatising and decentralising the housing sector, the UK government stopped financing social housing sector, making social landlords self-reliant in the management of their housing stock. However, RSLs do not operate like commercial enterprises as "financial return is not their primary objective" (Gruis et al., 2004, p1233; Jones et al., 2011) despite being mandated to effectively manage their housing stocks to maximise lettable life and establishing sound maintenance practices (Scottish Homes, 1989).

Planned asset management requires '*strategies*' to determine medium to long-term asset activities for realisation of best value of the assets (Gruis et al., 2004). Johnson et al., (2011) argue that strategy is highly applicable to organisations that are business oriented and whose objective is wealth creation. However, strategy is also applied to not-for-profit organisations whose objectives are not wealth creation but survive on funds since its absence result into inefficient use of the property asset which leads to reactive maintenance, improper monitoring and inadequate information to facilitate decision making (Ngwira et al., 2012).

Despite HAs and LAs operating in parallel environments, management approaches to their housing

stock differs (Gruis and Nieboer, 2004). However, Mullins et al., (2006) argue that to delineate management practices due to where it is being practiced is unnecessary. However, Ngwira (2015) suggests that property asset management practices differ across different organisations due to different reasons for example organisational culture, leadership etc.

2.2 Asset performance framework

Asset performance framework helps organisations supporting their commitment in the management of assets by among other things providing clear and systematic management of the building asset performance and enhancing decision making through 'robust performance information'. (Queensland Govt., 2014). Gruis and Nieboer (2004) contend that the efficiency of property asset performance is determined through assessing the stock condition. "With the expectation that HAs should develop strategic business like approaches to stock management, the associations need to operate with viable and adequate resources to meet current and future business and financial commitments by making better use of their property assets through strategic planning. These plans denote priorities and strategies for achieving objectives which are informed and inspired by condition surveys that encourage good practice guidance and asset management information which result into sophisticated property asset management". Good asset management ensures that maintenance of the stock is planned well in advance before the need for maintenance arises. In that regard, asset management analyses an organisation's stock performance to support critical decision making over the assets (Scottish Housing Regulator, 2017; Gruis et al., 2004; Jones et al., 2011). That information is gathered through stock condition surveys. Sharp and Jones (2007) opine that stock surveys are crucial to asset management decision making as they give a 'snap shot' of the stock's physical condition and that information builds 'stock condition profile model' to inform maintenance requirements.

Kim (1997) argues that asset managers need to make decisions to create asset performance plans and keep track of them. For all these to be achieved, there is need to have accurate stock condition information. Furthermore, physical, financial and operational features of the asset have to be available and to attain this, performance benchmarks have to be put in place. Therefore, the onus is on the HAs to ensure BV on their services.

2.3 Property asset performance and information management

Prompt asset management decision making requires readily available information. This requires information management system that can manipulate information whenever and wherever possible. Long term maintenance planning and development demands integration of condition data into life cycle cost models. Queensland Government (2014) report found that likelihood of getting inaccurate or confusing information is high if asset performance information is used in seclusion of other contextual data sets. RICS (2005) contends that wise investment into information management system that can be easily updated and accommodative to changes such that the existing condition survey information and the strategies to keep that information updated in the course of asset management is desirable. Therefore, well informative and responsive frameworks to asset performance is vital as property asset management is raising interest with wide spread market oriented approach to social housing, questions like which units to sale and which stock to renovate etc. (Sharp and Jones, 2012).

3. METHODOLOGY

The study used case study approach. "This extensively investigates a contemporary phenomenon in its real-world context" (Yin, 2014, p.2). Case studies are used when a researcher wants to deeply appreciate a specific phenomenon since they "give a holistic account of the subject of the research" (Fisher, 2011) as they give an in-depth studying of a particular issue from a single or a number of instances that yield insights (Kitchin & Tate, 2013). This study sought professional and organisational expertise based information on stock condition surveys to answer the study objectives.

3.1 Research design and Data Collection

The study adopted a multi-method qualitative design. This is whereby the study uses at-least one 'data collection' and 'data analysis' methods in a single study (Saunders, et al., 2009). This study used structured questionnaires which informed semi-structured interview guides and a focus group discussion (Biggam, 2011). The researcher administered 6 questionnaires, 3 in-depth interviews and one focus group discussion with the social housing top management officials who included the CEO, Procurement and Asset Manager, Investment Manager and Urban Regeneration Director. The participants' sample was representative according to Creswell (2013) who recommended that a sample size of 5 to 25 study participants with thorough knowledge of the study topic is representative enough.

3.2 Sampling method

The study used non-probability sampling technique whereby the researcher purposively sampled out social housing professionals with sound experience on the subject matter. These were deemed relevant and knowledgeable to meet the purpose of the study (Smith et al., 2009; Patton, 2002). Saunders et al., (2009) suggests that fewer study subjects give quality data needed.

3.3 Data analysis

Data collected was analysed using content analysis whereby the interview contents were transcribed and coded to identify themes that frequently came from the respondents. Themes generated were generalized, interpreted and triangulated by an analyst to check for consistency and the themes that emerged were analysed inductively (Creswell, 2013; Tranfield et al., 2005). From there, new theories were developed and/or already existing theories confirmed.

4. RESULTS AND DISCUSSION

4.1 Background of the housing stock with respect to the condition survey

Questions 1 to 4, 9, 24 and 25 sought to gather information about the Association's housing stock, thereby ascertaining maintenance needs of the housing stock. The study found that the Association has a variety of housing stocks with different age ranges some dating back to the early 1900s and some considerably new. However, most of the housing stocks on average were relatively new build. This, somehow agrees with Chapman (1999, p.212) who found that "most RSLs stock is relatively new, some which is post 1945".

Furthermore, the study found that some stocks were either transferred from Scottish Homes or GCC

which came as 'packages'. Therefore, some stocks were 'unpopular'. This meant a mixture of good, average and considerably poor conditioned stock. Asked on the challenges the Association was facing with its stock, the study found that the 'unpopular' stocks were a challenge in terms of management as there are some stocks which are in bad condition and to maintain them needs a lot of capital investment. Specifically, the Investment Manager specifically mentioned that:

“...there are what we call one apartment; a living room and a bedroom combined, kitchen and bathroom. These are very unpopular. There is no one demanding them so there is absolutely no justification to be spending money on the houses that people don't need”

Furthermore, the CEO added that;

“...there is no way we can spend £2.5M on twenty-seven houses which cannot stack up, there comes a point when you have to sale up. ...the £2.5M we would spend on the twenty-seven houses could do more good if you spend it somewhere else like spending about a million pounds in building new houses”

These sentiments highlight some of the challenges the housing Association was facing in the management of its stock. This concurs with Ngwira et al., (2012) who found that without strategic asset management, principles, management of the property assets becomes expensive.

4.2 The Housing association's perception on the quality of the condition survey

On the Association's perception towards the condition survey it commissioned. The study found that before the commencement of the survey, the Association gave specifications and expectations to the consultants during tendering against using less qualified surveyors or students to carry out the survey so that quality is not compromised. However, the Procurement and Asset Manager revealed that;

“...although they surveyed 625 properties in the first phase, 400 were cloned. A lot of times you're working on assumptions made which is not easy. However, that's the name of the game unfortunately, and you find sometimes that since you have made assumptions like; for example, we had a void property that came in not long after we had received this report and one tenant came and said to me; you know, I think we require a modernized kitchen, bathroom and rewire and I said ok. Since we have just had a condition survey completed, let's just look at the surveyors are going to tell us. So, we went to check the report and the surveyors said the property had a new kitchen because it was a cloned and they had taken a form the property which previously had a new kitchen but the tenant had pictures of the kitchen in a damaged state, so that tells you a story”

In his study, Chapman (1999) also found that among the reasons why condition survey outcomes are compromised is because surveyors use students or less qualified personnel for the work.

Therefore, in this condition survey, the consultant used senior surveyors. However, the study found that despite using senior surveyors in the condition survey, there were other challenges that emanated from cloning. The Urban Regeneration Director corroborated that;

“...when I look at the whole of the actual survey, it doesn’t meet our needs, for me overall because we accept responsibilities. We have to meet certain requirement by 2020. The stock condition survey was cloning. I don’t like cloning, I like dug data. So that stopped the stock condition survey... someone cannot survey 200 houses, clone 400 and say giving you hard and complete data...”

These themes on condition survey dissatisfaction agree with previous studies by Chapman and Beck (1998); Chapman (1999) who found that social landlords are not satisfied with stock condition surveys. Furthermore, Soetanto and Davies (2010, p.33) categorically pointed out that "stock surveys that are based on cloned or sampled data lead to inaccurate information. Such is the case because surveys are mostly percentage based and not full stock surveys hence cannot be used as good asset management tools".

4.3 Housing association’s aims and objectives guiding stock condition survey

On the question if the Association had specific aims and objectives before commissioning the stock survey, the study found that there were aims and objectives in place before the survey was commissioned, i.e. the Association was preparing LCC for the stock hence required asset condition report. Furthermore, the Association was meeting SHQS requirement to inform maintenance, investment and redevelopment decision making. This concurs with Wamuziri’s (2013) observation that RSLs use condition surveys to inform asset decision making. However, the study further found that despite most of the Association’s housing stock being in habitable condition, some had derelict ‘issues’ due to vandalism hence could not pass SHQS criteria.

4.4 Strategic asset management to support asset management plans.

On the questions whether the HA had strategic plans that support asset management, the study found that the Association was still developing strategic plans hence the commissioning of the condition survey. The CEO pointed out that the survey was meant to meet “*plans of taking a long term view on the stock to bring in new stock and new tenants in the area*”. Furthermore, it was revealed that the 'unpopular' units and some ‘700 units’ would be demolished and sold respectively to come up with most popular and market demanded units. Consequently, feasibility and viability studies were conducted to ascertain the viable housing project. This concurred with the Scottish Housing Regulator (2017, p.1) report that the Association was coming up with asset management strategy by exploring some opportunities in development context and weighing options on the lowly demanded stock.

4.5 Asset management knowledge and expertise to enhance asset management

On the question if the Association had human resources in place to ably discharge asset management functions. The study found that the Association had a full structure of the required personnel with specific functions to the management of the housing stock including Procurement and Asset Manager, Property Services Manager/Officers, Housing Manager, Senior Housing Officers and IT Consultant. It was further revealed that some officers at the Association have been working in the social housing sector for over forty-five years making them highly experienced and relevant to the growth and critical decision making in asset management planning.

4.6 Asset management and lifecycle costing

The question sought to find out if there was a relationship between asset management plans and life cycle costs of the stock. Schuman and Brent (2005) established that effective asset management increases the operational life of an asset as well as tenants' service satisfaction whilst minimising the operational costs. The study found that the Association had a 30-year lifecycle cost plans of managing and maintaining its stock. Although the lifecycle costs were prepared by industrial standards, one respondent was cautious that although the LCCs were for thirty years but experience had shown that sometimes the period may vary than estimated due to different component lifespans. This concurs with Schuman & Brent (2005) who pointed out that lifecycle costs are less subject to change when constructing the asset. However, during the asset's lifecycle, some cost drivers are lost. The study found that some stock elements/components were being replaced.

4.7 Asset information management system

The question sought to find out if the housing Association had an integrated asset management information system to incorporate condition survey data and maintenance program. However, the study found that there was no integrated asset management information system capable of incorporating stock condition surveys to enhance maintenance program. Nevertheless, it was observed from the 'Letter of appointment' to the condition survey surveyor/consultant that some of the deliverables with the condition survey report were:

- (1) Developing a comprehensive data recording pro forma;
- (2) Reviewing the existing LLC/cyclical maintenance information;
- (3) Producing new LCCs for planned/cyclical works;
- (4) Producing SHQS compliance information;
- (5) Producing EESSH compliance information.

Consequently, the Association used bespoke information management systems to suit current needs. This meant the Association was short of integrated asset information management system which could likely lead to inaccurate asset management planning. Gruis and Neiboer (2004) citing NHF Report (2001, p.1) opined that "without properly costed asset management plans, the business of the RSL is a short in the dark". RICS (2016) adds that stock data that is not well integrated with other management systems like financial systems which are crucial for reporting and performance analysis causes cloudy operations to the organisation since lifecycle cost measurements become difficult to ascertain where the funds are being spent.

However, it was revealed that the bespoke information system was meeting the current demands since the IT personnel was able to juggle around the program protocols to capture the required information. However, the Association is inclined to rely on that asset management information system since it is currently their 'project management tool.' Scottish Housing Regulator (2012, p.13) reported that despite having stocks that support operations, most RSLs have information systems that do not clearly analyse raw data to give clear picture of asset performance.

4.8 Factors considered in property asset management and maintenance

On the question of where the Association puts its focus in terms of property asset management considering that condition survey is a source of information on its stock. The study found that the Association puts tenant satisfaction to heart. The CEO pointed out that;

“Social housing is about individuals, families and communities. Getting success is not easy to achieve but we’re doing whatever we can...The world is changing, yes we’re strong, we’re a big housing association but maybe we can be much stronger so that come next years, people will say, there are the results of condition survey. So, we need to try as much as we can to meet to meet the standards, at the same time make tenants happy”.

This agrees with Scottish Housing Regulator (2016) who found that tenants were satisfied where the association scored highly in almost all the areas of interest surpassing SHQS requirements.⁸

RICS (2016) revealed that property asset managers consider tenants' satisfaction as a measurement of success because satisfaction measures how comfortable the tenants are in the building and how they perceive other building related services including safety/security.

4.9 Property asset performance assessment

On the question of whether the housing association carried out asset performance assessment, the study found that periodically, the association was able to carry out performance reviews on its housing stock. The CEO pointed out that:

“...actually, the decision to dispose of the unpopular stock was arrived at from one of the asset performance reviews. As an association, we have the responsibility to make sure that we remain relevant and at the same time meet the needs of our tenants and the community”

In their report of 2016, Moray Council suggested that performance assessment is the important and critical aspect of ‘good asset management practices’. Therefore, it ought to be part of the service plan and needs to be carried regularly. The study found that the Association dedicates time to review how the stock is performing and deliberate on what to be done on the less satisfactory performing stock. Additionally, Gruis and Neiboer (2004) citing the NHF Report (2001, p.1) pointed out that "the board, the chief executive and the senior management team should devote enough time to understand their existing asset base and making decisions on investments and sales.

On the question of the importance of asset performance assessment. It was revealed that such reviews are critical to the Association for critical asset management decision making. The Procurement and Asset Manager pointed out that

"...there are plans to come up with the new stocks. However, to decide which houses to bring on the market we have to know how other stocks are performing, which ones are in demand which ones are unpopular and where do we come in to fill. Mind you, the council also is looking up to us that we provide the houses which are needed in the city. On the other hand, we have information of what our housing types our tenants are looking for. So to strike a balance between these conflicting ideas demands critical decision making which can be arrived at in the context of performance review".

5. CONCLUSION

RSLs rely on stock condition surveys as an asset management tool to inform decision making. However, the housing Association was not satisfied with the stock condition survey it commissioned because the information generated was deemed inaccurate which ultimately affected its asset management decision making. Despite that condition surveys are at the centre of informing effective asset management decision making practices and maintenance programs, the housing Association was not satisfied with the condition survey as it did not give them the information they required to enable critical decision making. Despite the Association's stock largely performing satisfactorily, however, some stocks have maintenance needs requiring attention and has incorporated them in the stock lifecycle costs to be rectified in the short, medium and long run. Despite not having an integrated asset management information system, the Association is aware of its stocks' overall performance and plans to replace the stock that is not performing to satisfaction. Although the stock survey was commissioned to inform decision making, the survey was stopped and another consultant engaged due to property cloning to which management of the Association expressed dissatisfaction. Before, commissioning the survey, the housing Association had aims and objectives put in place which were to inform professional input so that the asset management programmes are accurate and reliable and to comply with the social housing regulator guidelines. Despite the Association's stock performing considerably satisfactorily, the Association had no standardised asset management information system to integrate stock condition survey data and inform asset management plans and effective asset maintenance programs.

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THE INFLUENCE OF PERSON-ENVIRONMENT FIT, PERSON-ORGANISATION FIT AND PERSON-JOB FIT ON CAREER SATISFACTION AMONG UNIVERSITY ACADEMICS

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ABSTRACT

The nature of South African universities' academic environment has changed rapidly over the past decade, primarily propelled by transformation issues, emerging policies and practices, which required academics to have certain skills and attributes. Recruiting and retaining key academics is not a once-off event but rather an ongoing process that has been a huge challenge experienced by higher education institutions (HEIs). This study aimed at exploring the influence of person-environment fit (PEF), person-organisation fit (POF) and person-job fit (PJF) on career satisfaction (CS) among university academics. The study is rooted within the positivist paradigm, using a quantitative research approach. A structured questionnaire was used to measure constructs. A total of 550 questionnaires were distributed among the identified sample of university academics, of which only 202 were usable for data analysis. Findings revealed the existence of strong positive associations between PEF and CS, POF and CS, PJF and CS. In terms of effect sizes, medium to large practical effect sizes were also found between the study constructs. The reliability values were all above 0.70 for all the constructs and deemed acceptable. PEF, POF and PJF positively affect academics' CS levels and to improve CS it is necessary to ensure the existence of fit between the academic and environment, organisation and job, respectively. The desired fit levels should be evaluated during the interview process, as this action will provide the HEI with the platform to select and retain individuals that have the desired compatibility levels to work within the HEI. Academics' CS can be enhanced by the implementation of a career advancement policy that may ensure that academics are provided with fair and equal training and development opportunities and are promoted based on their individual performances.

Key words: Person-environment fit, person-organisation fit, person-job fit, career satisfaction, academics

1. INTRODUCTION

A country's development and well-being is primarily dependent on the input of higher education (HE) and the social, economic and political development of its citizens (Council on Higher Education, 2010). Managing and maintaining career processes of academics, therefore, becomes necessary. As in the case of the rest of Africa, the South African (SA) HEIs are gradually challenged with recruiting and retaining exceptionally qualified academics, as they are essential for the success and competitive advantage of any HEI (Robyn & Du Preez, 2013). Grogan and Youngs (2011) highlight that for the desired competitive advantage to be achieved, the attraction, recruitment and retaining of key talent should be done with caution.

The SA HE academic environment has been changing over the past years due to the country's ongoing transformation, restructuring and improvements happening in technology and society (Mabelebele, 2015). The SA political history has also played a major role in the history and nature of the current HE system. The present HE system is resultant from the conflict between Afrikaners and the British and it was designed to exclude Black SA nationals automatically (Leibowitz & Bozalek, 2014). The exclusion of Black nationals was, however, eradicated over the years through the transformation that aimed at the promotion and removal of demographic and economic barriers that excluded Black nationals (Higher Education South Africa, 2015). All the restructuring eventually led to a change in the demands of the labour market, which led to the change of the SA HE environment (Janse van Rensburg, Rothmann & Diedericks, 2017).

Despite the excessive amount of pressure placed by the transformation of the HE sector on HEIs, the main aim of HEIs is to be modern environments that seek and promote knowledge and also develop all its employees, including academics, by providing them with ongoing training and development initiatives that will help them to build and progress in their respective careers (Daniel, Liben & Adugna, 2017). Exposure to a variety of developmental initiatives may result in employees who are generally satisfied with both their jobs and careers. Although there is existing literature and knowledge on the three fit variables and CS, very little is known regarding how fit constructs influence CS among university academics within the SA context, which may suggest that this particular relationship has been overlooked. This study, therefore, aimed at investigating the influence of PEF, POF and PJF on CS among university academics.

2. LITERATURE REVIEW

2.1. Person-environment fit

The concept of PEF originated from Parsons' 1909 Tripartite Model of Vocational Selection, as individuals practiced an occupational habit of selecting and shaping their work environments to favour their values (Su, Murdock & Rounds, 2015). It is commonly defined as the level of congruence that occurs when employee values are well-matched with environmental characteristics (De Cooman, Mol, Billsberry, Boon & Hartog, 2019).

Person-environment fit, as a complex and multidimensional concept, can further be distinguished in terms of complementary and supplementary fit. Complementary fit refers to how the characteristics of the environment perfectly match the unique traits and qualities of the academic, such that individual

abilities complete environmental characteristics (Van Vianen, 2018). It is, therefore, divided into demands-abilities fit, because environmental demands are met by academics' abilities and needs-supplies fit, since academics' needs are satisfied by the rewards supplied by the environment (Pee, 2012). Supplementary fit is the level at which academics and the work environment share values and characteristics. It evaluates the similarity between academics and the environment; hence, it is defined using the Schneider's attraction-selection-attrition (ASA) framework, as it posits that academics are attracted to and choose to pursue careers in environments that have similar values (Schantz, 2018). In addition to its multidimensional nature, PEF comprises several levels, namely POF, PJF, person-group fit (PGF) and person-vocation fit (PVF) (Janse van Rensburg *et al.*, 2017). This paper, however, focuses only on PEF, POF and PJF.

2.2. Person-organisation fit

Khaola, Mohapi and Matobo (2012) define POF as the level of compatibility between employees (academics) and employers (HEIs). It is a form of supplementary fit that refers to the similarity between employees' attitudes, values and goals and organisational culture, demands and core values (Saether, 2019). The behaviours of academics in the HEI will, therefore, differ, depending on the level of perceived similarity by the academics. The POF concept follows the ASA framework as it suggests that individuals are naturally drawn to organisations that are attractive to them and ignore those that are not. It is hypothesised by the ASA framework that individuals are attracted to organisations that share similar interests and values, selected by those organisations based on the level of similarity and decide to stay due to the compatibility between their personal attributes and organisational values and culture (Tsai & Fen, 2017). Thus, academics within the HEI will be similar in terms of personalities and values. Academics, however, may leave the HEI when they feel organisational values no longer match their goals.

2.3. Person-job fit

Unlike POF, PJF is conceptualised in terms of complementary fit, as individual features fill the gap within the requirements and demands of the jobs. Deniz, Noyan and Ertosun (2015) define PJF as the correspondence between individual skills and abilities and the demands of the job. As PJF exists between two parties, it is evaluated both subjectively and objectively. The subjective view is the academic's perception of how well the rewards supplied by the job fulfil their expectations and career goals, whereas the objective view refers to the organisation's standpoint of how academics' knowledge, skills and attributes (KSA) satisfy job requirements (Chhabra, 2015).

Due to the complementary conceptualisation of PJF, it is classified into demands-abilities fit and needs-supplies fit as stated in Section 2.1. Demands-abilities fit indicates that the job's demands and requirements are fully satisfied by the academics' KSA (De Crom & Rothmann, 2018). Academics are deemed capable of meeting the required standards of the job. Van Vianen (2018) defines needs-supplies fit as the suitability that occurs when employees' personal and career goals are gratified by what the job offers the academics.

2.4. Career satisfaction

Career satisfaction is the overall contentment employees experience in their organisational occupations and work life over a period of time (Lee, Bosco, Steel & Uggerslev, 2017). It is also referred to as subjective career success, since employees (academics) internally evaluate the progress they are making towards accomplishing their career goals by comparing their career expectations to the provisions of the organisation – HEI in the case of the present study (Park, 2018).

Academics' CS is influenced by both extrinsic (objective careers) and intrinsic (subjective careers) factors. Objective careers refer to satisfaction from external factors that an academic has no control over, such as promotions, salaries, job status and training and development opportunities provided by the HEI. Performance of an academic is evaluated exclusively by the HEI and an academic has no control over how extrinsic factors influence his/her career contentment (Trivellas, Kakkos, Blanas & Santouridis, 2015). Subjective careers involve satisfaction on academics' perceptions of their overall career journey, as individuals internally evaluate their progress alongside factors that are essential to them, such as work-life balance, job satisfaction, career achievements, organisational and job commitment (Ishak, 2015).

3. METHODOLOGY

3.1. Research approach/method

This study is situated within the positivist paradigm and as such, a quantitative research approach was applied in the empirical section of the study where relationships between variables were tested and supported by sensible and relevant evidence. A quantitative research approach is a form of descriptive research that analyses and interprets numerical data through statistical techniques (Swedberg, 2018). A quantitative research approach is more effective and efficient when dealing with large-scale data since it provides the use of systematic techniques that generate objective outcomes that are generalised to a larger population (Daniel, 2016).

3.2. Sampling method

Sampling is a technique used to draw conclusions from small selected parts of the entire population so that estimates are generalised to the whole population. Just like research methods, sampling methods are mainly determined by the research paradigm the study is situated in. Maree (2016) refers to sampling methods as the practical, analytical and statistical guidelines a researcher has to consider when collecting data. Sampling methods assist the researcher in determining the extent to which the study findings can be generalised to a larger population (Showkat & Parveen 2017). This study followed the convenience non-probability sampling technique, since the researcher used planned methods to draw the study sample. Convenience sampling suggests that the sample is easy and convenient to access.

3.3. Participants and setting

The study's participants were selected from one SA HEI (i.e. Vaal University of Technology), with the targeted population comprising of 710 permanent academic employees. Of the 550 distributed questionnaires, only 202 questionnaires were returned to the researcher, resulting in a response rate of 36.7%.

3.4. Data collection and measuring instrument

The researcher collected data by means of a pre-tested self-administered questionnaire, where questions were adopted from past studies to design a questionnaire directed at sourcing the necessary and relevant information from respondents to meet the research objectives. Prior to conducting the main study, a pilot study of 50 questionnaires was conducted in order to test the reliability and validity of the questionnaire. Forty-four questionnaires were completed and returned and presented the researcher with flaws in the measuring instrument; hence, the questionnaire was corrected and the desired reliability coefficients were achieved. The questionnaire consisted of six sections (Section A: Demographic attributes, Section B: PEF, Section C: POF, Section D: PJF, Section E: CS and Section F: ITL). Sections B to F required participants to rate the extent to which they agreed or disagreed with statements, using a five-point Likert-type scale that ranged from 1 and 2 = disagree, 3 = neutral, 4 and 5 = agree.

3.5. Statistical data analysis

Due to the deductive reasoning nature of an exploratory research design, a deductive data analysis strategy was applied in the analysis and decoding of data. The responses were coded using numerical themes and the Statistical Package for Social Sciences (SPSS), version 25 for Windows was utilised for the statistical analysis of collected and recorded data.

4. RESULTS

4.1. Descriptive statistics

Table 1: Demographic attributes

| Gender of academics | |
|---|-------|
| Male | 59.4% |
| Female | 40.6% |
| Age of academics | |
| Under 34 years | 11.4% |
| 34-44 years | 31.2% |
| 45-54 years | 35.1% |
| 55-65 years | 20.8% |
| Over 65 years | 1.5% |
| Ethnicity of academics | |
| Black/African | 71.8% |
| White | 20.8% |
| Indian | 5.0% |
| Coloured | 2.0% |
| Asian | 0.5% |
| Qualification types of academics | |
| Masters/doctorate | 67.8% |
| Postgraduate diploma | 16.3% |
| Degree | 14.9% |
| Diploma | 0.5% |
| Other unspecified qualifications | 0.5% |

Academics' 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% |

Table 1 indicates that the majority of academics who participated in this study are male academics (59.4%), and female academics are in the minority with 40.6%. With regard to age, the majority age group was 45-54 years (35.1%), followed by 34-44 years (31.2%), the age group 55-65 years (20.8%), the under 34 years' age group (11.4%) and the age group of over 65 years was in the minority with 1.5%. With reference to ethnicity, 71.8% of academics are Black/African, while 20.8% represented White academics and 5.0% represented Indian academics. 2.0% represented Coloured academics and Asian academics are in the minority with 0.5%. In terms of qualification types, 67.8% of academics hold master's/doctorate qualifications, followed by post graduate diploma qualifications (16.3%) and degree qualifications (14.9%). Diploma and other unspecified qualifications are both in the minority with 0.5% respectively. With respect to years of experience, 64.9% of academics have experience of more than 12 years, followed by 20.8% of academics with experience of between 8-12 years. Only 10.9% of academics have experience of between 3-7 years and 3.5% of academics were in the minority with experience of less than 3 years. The majority of respondents have more than 12 years' experience which qualifies them to form an opinion of their fit and CS.

Table 2: Statistical representation of academics' perceptions of study constructs

| Study constructs | Mean | Standard deviation |
|------------------|------|--------------------|
| PEF | 3.45 | 0.8994 |
| POF | 3.62 | 0.8809 |
| PJF | 4.27 | 0.6744 |
| CS | 3.60 | 0.8906 |

Overall, academics were neutral in their perceptions about how they fit in the environment (PEF), organisation (POF) and how content they are with their careers (CS). This indicates that academics were non-committal with reference to the perceived levels of PEF, POF and CS. The mean score of PJF (4.27) was relatively higher, which indicates that academics perceived a good fit to their respective jobs. This could further highlight that academics were under the supposition that their job fit had higher congruence levels than that of the environment and organisation, as their KSA met the job demands and, in turn, the job supplies satisfied academics' needs and goals.

4.2. Correlation analysis

The relationship between PEF and CS had a medium effect size on Cohen D statistics, ($r = 0.445$), indicating a positive moderate correlation between the two constructs, as academics perceive the existence of PEF to be positively related to their CS.

Table 3: Correlation analysis results reporting

| Relationships between constructs | Correlation coefficient (<i>r</i>) | Cohen D effect size | Significant (p value) |
|----------------------------------|--------------------------------------|---------------------|-----------------------|
| PEF and CS | 0.445 | Medium | 0.000* |
| POF and CS | 0.537 | Large | 0.000* |
| PJF and CS | 0.531 | Large | 0.000* |

The existing literature supports this finding as academics tend to show satisfaction in their respective careers when they feel a sense of similarity with the organisational environment. Such an environment supports and allows for the attainment of both the personal and career goals of academics. Person-environment fit is positively correlated with CS only if academics acknowledge the existence of fit with the organisational environment.

Person-organisation fit and CS presented a large practical significance ($r = 0.537$) on the Cohen D statistics, highlighting the existence of a strong positive relationship. Academics' compatibility with the HEI is a key factor in understanding how positive attitudes and behaviours allow for both the effective and efficient performance of overall organisational duties and academics meeting their career goals. This implies that high compatibility between academics and the HEI allows academics to pursue and progress in their respective careers due to the existing similarity in organisational goals and academics' goals and values. Positive behaviours and attitudes are influenced by how academics perceive and respond to the organisational structure and values, which improves their overall performance, including how they address their personal career prospects. When academics are content with working in the HEI and are able to progress in their careers, they will show high satisfaction with their careers.

Another major significance was reported by the positive correlation between PJF and CS, at $p < 0.05$. In terms of Cohen D- effect sizes, the relationship between PJF and CS also showed a large practical significance ($r = 0.531$). The desired compatibility between the academics and their jobs was achieved when academics' KSA satisfied the requirements and demands of the jobs and in turn, the jobs fulfilled academics' personal and career goals. Providing academics with sufficient resources enabled them to progress accordingly in their different careers, resulting in the desired CS. When academics are satisfied with their careers, their job performance levels improve drastically.

5. DISCUSSION

This paper contributes to the existing body of knowledge by providing the HR department of the HEI with meaningful insight on how academics' CS can be improved. The desired fit levels should be evaluated during the interview process, where HR personnel in charge could require prospective academics to complete a questionnaire that will assess the level of congruence between organisational characteristics and individual values and abilities. This action will provide the HEI with the platform to select and retain individuals who have the desired compatibility levels, thereby improving its competitive advantage. The existence of high fit levels leads to improved academics' performance and work engagement, which intrinsically motivates and drives academics, generally, to be the best at what they do and be more committed to both their jobs and the HEI.

Organisational attributes and characteristics could be improved to enhance the similarity with individual values and career goals. The HR department could ensure the implementation of a career advancement policy that will provide academics with career advancement initiatives and resources (e.g. training of new additional skills) that may improve their job performances. Based on individual job performances, the HR department could encourage the movement of academics within the organisational hierarchy by promoting academics that deserve to be elevated.

The HR department, additionally, could attempt to develop a deeper understanding of the nature of academics' CS, including factors that lead to satisfaction among academics. In studying the nature of CS, PJF and POF it is suggested that all factors that influence CS should also be paid attention to in order to expose areas that need further improvements. The HR department could also ensure for the provision of a more conducive working environment, as it may allow academics to perform their organisational duties more effectively and have better working relationships with their co-workers.

6. LIMITATIONS AND IMPLICATIONS FOR FUTURE RESEARCH

Although this paper provides valuable information for the HR department of the HEI, the study was subject to a number of limitations, as the study sample was limited to only one public HEI, preventing the results and findings from being generalised to all SA HEIs. Future research, however, can broaden the scope of the study by focusing on all academics of public and private HEIs in South Africa. Such studies will allow for the comparisons in strengths and weaknesses of how both sectors could use the fit dimensions to improve the CS of academics. This study was limited in that data were only collected and analysed quantitatively. Future studies can be done following a mixed method approach (application of both quantitative and qualitative methods). This will provide the HEIs with more relevant strategies to implement in using fit variables to improve CS of academics. Future research studies can also focus on establishing how existing data collection methods can be improved for more effective and efficient data collection procedures. This may break existing barriers in achieving the desired response rate.

7. CONCLUSION

The initial aim of this study was to investigate the influence of PEF, POF and PJF on CS among university academics and this was successfully achieved, as academics' perceptions guided the researcher in drawing conclusions about how fitting in within the HEI impacted on their levels of CS. Because the findings of this study found PEF to have no significant impact on CS, despite the positive correlation, the HEI could ensure the creation of a conducive work environment that would allow academics to excel in performing their organisational duties. The HEI in question was also advised of the need to understand the importance of evaluating and considering fit variables during the recruitment and selection process of prospective academics. This could enable the HEI to monitor the exact influence that fit variables place on CS.

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BUSINESS CHALLENGES, OPPORTUNITIES AND GROWTH DRIVERS FACING SMEs IN THE SEDIBENG REGION

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ABSTRACT

In emerging economies such as South Africa, SMEs are faced with enormous challenges that obstruct their growth. Despite the existence of such challenges, SMEs also encounter several opportunities that drive their business growth. This study investigated the significant challenges and opportunities that affect the business growth of SMEs in the Sedibeng Region of Gauteng province. A survey questionnaire was distributed to a sample of 126 owners and managers of SMEs in the Sedibeng Region of Gauteng Province, South Africa. The collected data were analysed using descriptive statistics, exploratory factor analysis, Pearson correlations and regression analysis. Six factors were identified as follows; two SME challenges (economic aspects and crime and technology), two opportunities (environmental aspects and information technology) and two business growth (business sustainability and external business aspects). The results showed that SME challenges and opportunities positively predict their business growth. The study enables SME owners and managers to understand the sources of the challenges and opportunities and use this information to develop solutions for the sustained growth of their businesses.

Keywords: Small and medium enterprises, economic aspects, crime and technology, environmental aspects, information technology, business sustainability, external business aspects

1. INTRODUCTION

Interesting developments continue to unfold in the narrative of small to medium enterprises (SMEs) worldwide. A leading dynamic is the impact of SMEs at both micro and macro-economic levels. SMEs remain the dominant form of business in most economies and have been described as an essential factor in sustaining most countries' economic growth and development (Smit & Watkins 2012:6325; Pooe, Mafini & Okoumba 2015:2). Economists often describe SMEs as job creators and the fuel providing propulsion to any country's economic engine (Abor & Quartey 2010:219). SMEs are labour intensive, capital saving and capable of stimulating the creation of millions of new jobs (Agwu 2014:101). The presence of SMEs in an economy demonstrates the existence of healthy and essential competition against big businesses that may exploit and have monopolistic power in the

economy (Stan 2014:170). Furthermore, the growth and success of SMEs lead to economic development and the reduction of regional disparities by curtailing rural-urban migration (Ahiawodzi & Adade 2012:34; Xheneti & Bartlett 2012:607). SMEs are also known for pioneering and originating new knowledge which they test before it disseminates to either large businesses or industries (Muriithi 2017:39). Hence, SMEs have immense potential to grow an economy, thereby making continuous investment in such enterprises necessary.

Although SMEs are vital to economic growth and are at the centre of all growing economies, most of them are subjected to many challenges. These challenges include, among other things, access to finance and credit, management competencies, economic pressures, labour laws, crime and corruption (Rogerson 2008:64; Olawale & Garwe 2010:732; Cant 2012:1109; Smit & Watkins 2012:6326; Leboea 2017:5; Debeila 2018:16). The impacts of these challenges are substantial, ranging from reduced growth and financial losses to ultimate business failure. For instance, according to a survey conducted by Small Business Project (SBP) in 2013, 35% of the surveyed SME owners in South Africa reported to have the survival or existence of their businesses threatened; and 49% of SMEs exhibited either a stagnant or shrinking turnover (Finmark Trust 2015:5). Thus, continuous efforts, both empirical and practical, are necessary to turn around the pattern of such discontinuities among SMEs in the country.

Despite the challenges faced by SMEs, several opportunities exist for them. In South Africa, the government has increased its budget to support SMEs in different areas of the country (Agwa, Ejon & Mbohwa 2015:522). The government has established several provincial support programmes to support SMEs (Mago & Toro 2013:19). The government has established institutions such as the Small Enterprise Development Agency (SEDA) and Khula Enterprise Finance established in December 2004 respectively to provide SMEs with financial loans (Khula Enterprise Finance Ltd 2007:5; Bureau for Economic Research 2016:6). In addition, legislative pieces such as the Broad-Based Black economic empowerment (BBBEE) and the Preferential Procurement Policy Act of 2003 are intended to provide leverage to indigenous SMEs. When applied objectively, these tools and avenues provide SMEs in South Africa with opportunities for growth and success. However, despite the existence of such acknowledged opportunities, failure rates among SMEs remain unprecedented, providing a further impetus for perpetual efforts intended to establish other prospects that may spur the growth and success of SMEs.

This article investigates the challenges and opportunities, and business growth drivers facing SMEs in the Sedibeng region of Gauteng province in South Africa. As mentioned above, SMEs in the country continue to fail, with up to 90% of such businesses facing the possibility of business failure (Agwa-Ejon & Mbohwa 2015:521). This sustained failure of SMEs in South Africa continues to inspire common interests among researchers and practitioners alike in the quest to find lasting solutions. Although the literature is awash with information on SME challenges in South Africa, most studies (e.g. Cant 2012:1109; Smit & Watkins 2012:6326; Ngcobo & Sukdeo 2015:510; Leboea 2017:5; Debeila 2018:16; Bushe 2019:25) have adopted a localised approach by narrowing down these problems to specific contexts in the country. By implication, SME challenges and opportunities may vary depending on location since operational environments and markets are not homogenous.

This being the case, a contextual approach was deemed necessary in which the present study focuses exclusively on the Sedibeng region, which has its unique dynamics (*c.f.*, *Sect 3.1*). Moreover, most studies have concentrated on SMEs' challenges while devoting less attention to the potential opportunities and business growth drivers available. The present study attempts to address these gaps and redefine existing trends.

2. RESEARCH METHODOLOGY

This section provides a summary of the research design and sample, instruments and data collection techniques, statistical analysis, scale accuracy and ethical considerations considered in this study.

2.1. Research Design

The study followed a positivist paradigm, using a quantitative survey design. This selection was premised on the ability of a survey to provide a numeric description of trends, attitudes or opinions of large numbers of respondents. Moreover, the method permits a faster and more convenient collection of data and adequate statistical-oriented analysis of the information gathered from the respondents. In addition, the survey method leads to a better generalisation of results across larger scopes of studies (Nardi 2015:12).

2.2. Sampling Design

Respondents were composed of owners and managers drawn from selected SMEs in the Sedibeng Region of Gauteng Province. The Sedibeng region is a district municipality located in the Southern part of Gauteng Province. It is composed of three local municipalities, namely Emfuleni, Lesedi and Midvaal. The region has a population of approximately 900 000 people and spans nearly 4500 square kilometres (Statistics South Africa 2020:1). Sedibeng was selected as the focal context of the study because it is primarily an industrial region composed of numerous businesses in diverse industries, most of which are SMEs.

The final sample was made of ($n = 230$) randomly selected respondents. The sample size used is in line with similar studies conducted by Brink, Cant and Ligthelm (2003:7), Olawale and Garwe (2010:733), Agbenyegah (2013:264), Wiese (2014:47) and Lekhanya (2016:74) that focused on the challenges and opportunities of SMEs. They used a sample size of 300, 100, 570, 450 and 150, respectively.

2.3. Instrumentation and Data Collection Techniques

Primary data were collected using a four-section questionnaire. Section A of the questionnaire elicited information on the demographic characteristics of the respondents as well as the profile of the SMEs. Section B elicited data on the challenges faced by SMEs in the Sedibeng Region. Questions used in Section B were adapted from previous studies (Ackah & Vuvor 2011:55; Gustavo-Nahum 2013:736; Wiese 2014:127), which also focused on challenges faced by SMEs. Section C elicited questions on the opportunities realised by SMEs, adapted from two previous studies (Bullock & Hughes 1997:21; Soini & Veseli 2011:65). Section D elicited questions on the level of business growth encountered by the SMEs. These questions were adapted from two previous studies (Bullock & Hughes 1997:22;

Ncube 2015:164). Questions on Sections B, C and D, were configured in a five-point Likert style format anchored by 1= strongly disagree and 5=strongly agree.

2.4. Statistical Analysis

Data analysis was performed using the Statistical Packages for the Social Sciences (SPSS version 25.0). The actual statistics employed in the study included descriptive statistics to analyse the demographic details of respondents, Exploratory Factor Analysis (EFA) to test for the structure of data, and correlation and regression analysis to examine the relationships between the research constructs.

2.5. Scale Accuracy

Reliability and validity were applied to ensure the accuracy of measurement scales. Reliability, which refers to the consistency of test results (Akib, Najib & Ghafar 2015:64), was tested by using the Cronbach's alpha (α) coefficient. As Tavakol and Dennick (2011:53) prescribed, measurement scales should have attained Cronbach's alpha values greater than 0.7 to be classified as reliable. The Cronbach's alpha values for the measurement scales used in the study ranged between 0.718 and 0.866, which were acceptable because they fell above the recommended 0.7 minimum threshold (Bryman & Bell 2012:4500).

Validity refers to the truthfulness of responses to the measure in a study (Burns & Bush 2014:146). Three types of validities, namely face, content and construct validities, were considered. Face validity was measured by assessing the questionnaire by a panel of academics to ensure that all scales measured exactly the elements stated in research objectives and therefore lead to accurate results. To ensure content validity, the questionnaire included various questions that adequately assessed all aspects of the views regarding SME challenges, opportunities, and growth. A pilot study involving 40 SME owners and managers drawn from the Sedibeng Region was also conducted prior to the primary survey, which facilitated minor adjustments to the questionnaire. The questions in the final questionnaire were based on information gathered during the literature review to ensure that they were representative of what SME owners and managers should know about the three constructs. Construct validity was tested using factor loadings computed in the EFA, correlations and regression analysis. All items retained in the EFA attained factor loadings higher than 0.5, thereby confirming the adequacy of construct validity. In addition, positive correlations below 1.0 between the research constructs were computed, thus further indicating that construct validity was satisfactory.

3. RESEARCH RESULTS

This section discusses the demographic details of respondents, EFA correlation analysis and regression analysis.

3.1. Profile of SMEs and Respondents

Of the 230 SME owners and managers who participated in this study, 59.1% (n=136) were male. A total of 38.3% (n=88) of the respondents were aged between 27 and 36, making them the highest

represented group in the sample. In terms of education, the largest group of respondents (17.8%; n=94) were holders of diploma qualifications. The highest number of respondents (42.6%; n=98) were black. As expected, most businesses that participated (65.6%; n=151) had been in operation for less than five years. Most of the businesses that participated in the study (38.8%; n=88) were in the retail industry.

3.2. Exploratory Factor Analysis

The EFA procedure was performed to check whether the factor structure of data collected correctly captured the challenges, opportunities and business growth factors experienced by SMEs. EFA refers to a cluster of common methods used to explore the underlying pattern of relationships among multiple observed variables (Baglin 2014:1).

The procedure culminated in the extraction of six factors representing two, each from the challenges, opportunities, and business growth among SMEs. The factors are presented in Table 1;

Table 1: Results of the Factor Analysis

| Factor | Label of Factor | Description |
|--------|----------------------------|--|
| 1 | Crime and Technology | his factor represented problems such as theft, fraud, and vandalism, which affect SMEs in different environments. |
| 2 | Economic Aspects | This factor represented aspects that affect the overall state of a country or region’s economy. |
| 3 | Information Technology | This factor represented various aspects that affect trends in technological change, the maturity of technology and investments in technology. |
| 4 | Environmental Aspects, | This factor represented support that SMEs obtain from the government, more established businesses and communities of practice. |
| 5 | External Business Aspects, | This factor represented all aspects that affect the business environment, such as customers’ taste and fashion, climate change, health consciousness and importations. |
| 6 | Business Sustainability, | This factor refers to the management and coordination of financial, social, and environmental aspects of business, also known as the triple bottom line. |

Conceptual Model Developed Based on Exploratory Factor Analysis

A conceptual model was developed based on the data structure generated in the EFA. This study identified two challenges (economic aspects and crime and technology), two opportunities (environmental aspects and information technology). These four are predictor constructs influencing the two SME business growth (business sustainability and external business aspects).

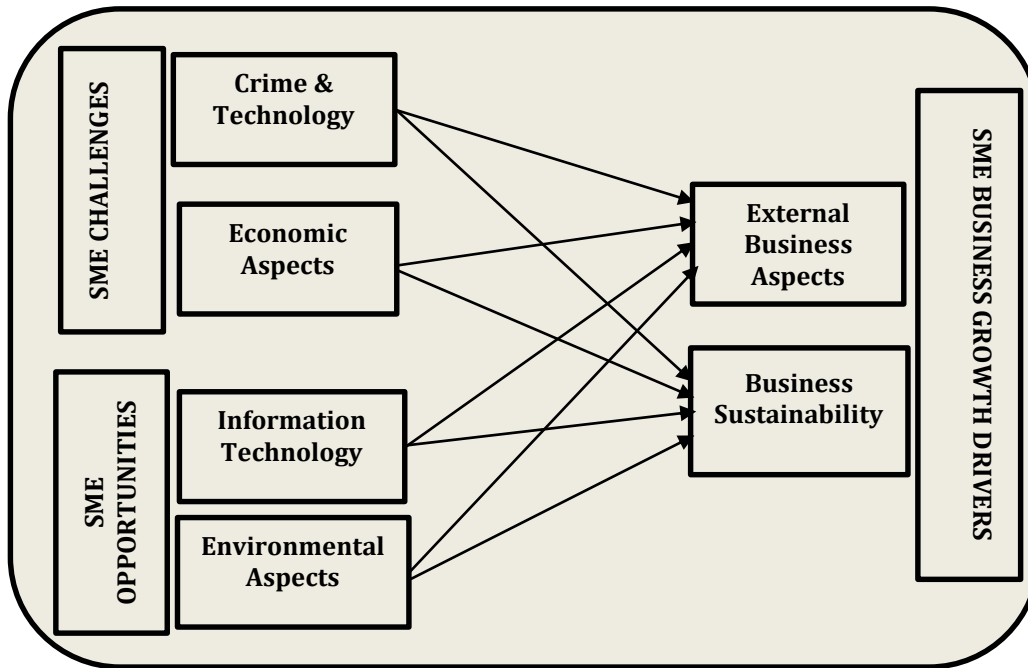


Figure 1: Conceptual Model for SME challenges and opportunities and business growth drivers

Source: Compiled by authors

The conceptual model was subsequently tested through Pearson correlations and regression analysis.

3.3. Correlation Analysis

Linear associations between the challenges, opportunities, and SME growth were tested using the Pearson correlation analysis. The Pearson correlation coefficient (r), which assesses the degree to which quantitative variables are linearly related in a sample, was used (Samuels 2014:1). It is a statistical test that determines the strength and direction of the relationship between two numerical data variables (Saunders, Lewis & Thornhill 2016:723). The Pearson coefficient of correlation is represented by “ r ” and measures the degree of the linear relationship between two variables such as x and y (Nikolić, Muresan, Feng & Singer 2012:65). In this study, the Pearson correlation is derived by measuring the variations in one numerical data variable as another variable also varies (Sekaran & Bougie 2016:286) and was applied to determine the association between challenges, opportunities and growth of SMEs. The results are presented in Table 2.

An analysis of the correlation matrix (Table 2) reveals significant positive correlations ranging between ($r = .437$; $p < 0.0$) and ($r = .670$; $p < 0.00$) between the challenges, opportunities, and SME growth constructs identified in the study. These results demonstrate that an increase in any one construct can trigger increases in any of the other constructs. Conversely, any decrease in any variable may also stimulate a decrease in any of the other variables.

Table 2: Correlations: SME Challenges, Opportunities and SME Business Growth Drivers

| Factors | | EA | CT | EN | IT | BS | EB |
|---------|---------------------|--------|--------|-------|-------|-------|----|
| EA | Pearson Correlation | 1 | | | | | |
| | Sig. (2-tailed) | .000 | | | | | |
| CT | Pearson Correlation | .627** | 1 | | | | |
| | Sig. (2-tailed) | .000 | | | | | |
| EN | Pearson Correlation | .558** | .467** | 1 | | | |
| | Sig. (2-tailed) | .000 | .000 | | | | |
| IT | Pearson Correlation | .437** | .612** | .462* | 1 | | |
| | Sig. (2-tailed) | .000 | .000 | .000 | | | |
| BS | Pearson Correlation | .667** | .670** | .503* | .508* | 1 | |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | | |
| EB | Pearson Correlation | .497** | .617** | .497* | .607* | .542* | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | |

EA = economic aspects; CT= crime & technology, EN= environmental aspects; IT= information technology; BS= business sustainability; EB= external business

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

Source: Compiled by authors

3.4 Regression Analysis

Since there were positive associations between the constructs, it was deemed necessary to check for prediction between the constructs, achievable through regression analysis. Regression analysis is a statistical technique used to test the significant impact or influence of independent variables on the dependent variable (Mooi 2014:194). It facilitates the prediction of the score on one variable based on the scores observed in several other variables (Collis 2011:62). In the present study, regression analysis using the ‘enter’ method was performed to identify the variables that provide the best explanation for the portion of the total variance in the scores of the dependent variables

In regression models 1 and 2, the two SME challenges (economic aspects and crime and technology) were entered as the independent variables. In contrast, external business aspects and business sustainability were entered as the dependant variables, respectively. In regression models 3 and 4, the two SME opportunities (environmental aspects and Information Technology) were entered as the independent variables, while external business aspects and business sustainability were entered as the dependant variables, respectively.

The results of the regression analysis are indicated in Table 3. The constructs representing SME challenges and opportunities were entered as the independent variables, while the two SME business growth constructs were entered as the dependent variables. In regression model 1, the two SME challenges ($R^2=0.545$) accounted for almost 55% of the variance explained in business sustainability. In regression model 2 ($R^2 =0.395$), they accounted for nearly 40% of the variance explained in external business aspects. In regression model 3, the two SME opportunities ($R^2 =0.344$) accounted for 34% of the variance explained in business sustainability. In regression model 4 ($R^2 =0.423$), they

accounted for 42% of the variance explained in external business aspects. Collinearity diagnostics did not signal a significant threat from multicollinearity in all four regression models since tolerance values were higher than the prescribed minimum of 0.2 while variance inflation factor values were lower than the recommended upper threshold of 10 (O'Brien 2007:674).

Table 3: Regression analysis

| Independent variables: | Beta | T | sig | Tolerance | VIF |
|--|--|----------|------------|------------------|------------|
| Regression Model 1: SME Challenges and business sustainability | | | | | |
| Challenges | Dependent variable: Business sustainability | | | | |
| Regression Model 2: Challenges and external business aspects | | | | | |
| Challenges | Dependent variable: External Business Aspects | | | | |
| Regression Model 3: Opportunities and business sustainability | | | | | |
| Opportunities | Independent variable: Business sustainability | | | | |
| Environmental aspects | .341 | 5.651 | .000 | .832 | 1.512 |
| Information Technology | .351 | 5.809 | .000 | .743 | 1.374 |
| Regression Model 4: Opportunities and external business aspects | | | | | |
| Opportunities | Independent variable: External Business Aspects | | | | |
| Environmental aspects | .275 | 4.860 | .000 | .787 | 1.271 |
| Information Technology | .480 | 8.485 | .000 | .787 | 1.271 |

Source: Compiled by authors

The results regarding SME challenges and business sustainability were rather interesting, indicating a significant positive correlation ($r=0.667$; $p=0.00$) between economic challenges and business sustainability. In the regression analysis, the economic aspects factor was statistically significant ($\beta=0.407$; $t=7.108$; $p=0.000$) in predicting business sustainability. These results suggest, somewhat unpredictably, that more significant economic challenges enhance SME business sustainability. Similarly, there was a significant strong positive correlation ($r=0.670$; $p=0.00$) between crime and technology and business sustainability. In the regression analysis, crime and technology challenges also significantly predicted business sustainability ($\beta=0.415$; $t=7.251$; $p=0.000$). This result denotes that business sustainability among SMEs thrives when there are crime and technology challenges.

A moderate positive correlation ($r=0.497$; $p=0.00$) was observed between economic aspects and external business aspects. Analysis of Regression model 2 shows that the economic aspects factor was statistically significant ($\beta=0.181$; $t=2.739$; $p=0.000$) in predicting an external business aspect. This result implies that the strengthening of economic challenges provides greater opportunities for SME external business aspects. Furthermore, a significant strong positive correlation ($r=0.617$; $p=0.00$) was observed between crime and technology challenges and external business aspects. Further analysis of the regression model shows that crime and technology challenges significantly predicted the external business aspect ($\beta=0.504$; $t=7.629$; $p=0.000$). This result denotes that external business prospects among SMEs flourish when there are more intensive crime and technology challenges.

A strong positive correlation ($r=0.503$; $p=0.00$) existed between environmental aspects and business sustainability. Regression analysis indicated that the environmental aspects factor was statistically significant ($\beta=0.341$; $t=5.651$; $p=0.000$) in predicting business sustainability. This result illustrates that the availability of environmental opportunities increases the chances of success of an SME. Furthermore, a strong positive correlation ($r=0.508$; $p=0.00$) existed between information technology and business sustainability. Further examination of the outcomes of the regression analysis shows that information technology significantly predicted business sustainability ($\beta=0.351$; $t=5.809$; $p=0.000$). This result reveals that business sustainability among SMEs improves when they adopt information technologies.

A moderate positive correlation ($r=0.497$; $p=0.00$) emerged between environmental opportunities facing SMEs and external business aspects. Regression analysis indicates that the environmental aspects factor was statistically significant ($\beta=0.275$; $t=4.860$; $p=0.000$) in predicting external business aspects. There was also a significant strong positive correlation ($r=0.607$; $p=0.00$) between information technology and the external business aspects facing SMEs. The regression analysis outcome shows that information technology significantly predicted external business aspects ($\beta=0.480$; $t=8.485$; $p=0.000$). This result implies that the strengthening of environmental opportunities propels SMEs to greater business successes.

4. CONCLUSIONS, THEORETICAL AND PRACTICAL CONTRIBUTIONS

This study aimed to identify the challenges and opportunities that affect the business growth of SMEs in the Sedibeng Region of South Africa. Literature emphasised that it is crucial to study SMEs and their contributions to the economy. It further emerged in the literature that although SMEs are essential contributors to the South African economy, they face numerous challenges and opportunities affecting their growth. Through the EFA procedure, the study identified two challenges, opportunities, and SME business growth drivers apiece. These are economic aspects, crime and technology, environmental aspects, information technology, business sustainability, and external business aspects. In testing for connections between these factors, the study found that the two challenges and opportunities positively predicted business sustainability and external business aspects. Thus, the study first concludes that some economic and crime and technology challenges, contrary to conventional perspectives, present possibilities for increasing the success of an SME. The study further concludes that the availability of environmental opportunities and the adoption of IT enhances the chances of business success among SMEs.

Theoretically, the study adds value by identifying the internal and external factors influencing the growth and sustainability of SMEs in South Africa. The study further reveals the connections existing between challenges, opportunities, and business growth drivers in SMEs. Practically, owners and managers of SMEs can allocate more resources to providing solutions to those challenges that emerged as most important in this study. Crime and technology challenges can improve business sustainability when the managers and owners of SMEs in the Sedibeng region apply measures that will mitigate the effect of these challenges on the business. Adoption of IT should be strengthened in light of its widely-recognised benefits to SMEs. Sustained environmental scanning and intelligence by SMEs are necessary to keep abreast with developments and take advantage of existing and

potential opportunities. Thus, the study provides a reasonable basis for the adoption of best practices in enhancing the opportunities and mitigating the effect of the challenges on the business growth of SMEs. SMEs can use the study as a diagnostic tool for business growth.

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ADOPTION OF ELECTRONIC AIRTIME AS A GREEN MARKETING CUE: EVIDENCE FROM THE TELECOMMUNICATIONS SECTOR IN ZIMBABWE

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ABSTRACT

Telecommunications operators in Zimbabwe have been slowly adopting green marketing strategies in their business models including the sale of electronic airtime. However, physical recharge cards remain popular amongst consumers, accounting for 40% of airtime sales. This clearly shows that there is sustained buyer behaviour by consumers who continue to prefer buying physical recharge cards. Globally, the consumption behaviour of individuals has commonly been attributed as the major contributor to the various environmental issues such as climate change, environmental pollution, and the loss of biodiversity. Therefore, couched in the theoretical framework of the Technology Acceptance Model (TAM), this research study investigated the influence of subjective norms, perceived usefulness and perceived ease of use on consumer intentions to adopt electronic airtime in the Zimbabwean telecommunications sector. A quantitative research design was adopted, with survey data collected using the mall intercept following a simple random sampling technique which realized a sample of 384 respondents. Scales were valid and reliable, with reliability coefficients above 0.7. Correlation and regression analyses were performed, with the research findings showing that subjective norms, perceived usefulness and perceived ease of use all have a significant impact on the intention to adopt electronic airtime. The regression results show that the independent variables in the model explain 82% of the variance in consumer intentions to adopt electronic airtime. Therefore, subjective norms, ease of use and perceived usefulness are key in influencing consumers' intentions to adopt electronic airtime. Consequently, subjective norms such as family, friends and societal views are considered important and need to be emphasized in marketing efforts which encourage intentions to adopt electronic airtime. In addition, telecommunications operators should emphasize the convenience and advantages of electronic airtime and show how it is easier to use in order to encourage more consumers to embrace electronic airtime.

Keywords: electronic airtime; green marketing; technology acceptance model; Zimbabwe

1. INTRODUCTION

Globally, the consumption behaviour of individuals has been recognized as the major contributor to the various environmental issues such as climate change, environmental pollution, and the loss of

biodiversity (Lange & Dewitte 2019:92). Early efforts to achieve sustainable consumption focused on using technological innovation and process efficiencies to reduce the resource intensity of products and create new, less toxic, more environmentally friendly products. However, the inadequacy of consumers to adopt and buy pro-environmentally products have been widely noted. Moreover, recent efforts to achieve sustainable consumption have highlighted that a change in the behaviour of individual consumers is a prerequisite for its achievement (Lange & Dewitte 2019:92). Consequently, the notion of pro-environmental consumer behaviour and sustainable consumption is in the forefront due to its impact on the economy, society and environment (Quoquab, Mohammad & Sukari 2019:791). It advocates for the purchase and use of pro-environmental products and sustainable consumption habits which show that consumers care for environmental welfare (Quoquab et al., 2019:791).

Consequently, the public is becoming more concerned with the natural environment, actively lobbying and making businesses modify their behaviour and production processes as a response to the society's new concerns (Parker, 2013). In addition, governments and non-governmental organizations as well as pro-environment consumers have started to challenge businesses to produce eco-friendly products, as they become more concerned about protecting the environment and safeguarding health as well as preserving the earth's limited resources (Yeng & Yazdanifard 2015:17). Accordingly, firms have slowly applied green marketing practices in their projects and manufacturing processes as a part of social conscience (Yeng & Yazdanifard 2015:17). Green marketing, which entails the marketing of products that are presumed to be environmentally preferable to others, has emerged in response to these growing demands. Green marketing incorporates a broad range of activities such as product modification, consumer protection, and modifying production and distribution processes. Charter and Polonsky (2017) further demarcated green marketing as the marketing or promotion of a product based on its environmental performance and its improvement thereof.

The concept of green marketing practices involves several features. The term is understood nowadays to include marketing of eco-friendly and safe products; manufacturing of product promotion, goods packaging harmonious with the environment and minimizing of any hazard to the environment (Singh & Pandey, 2012). Green marketing practices thus construct a bridge between the business and customer (Ko, Hwang & Kim, 2013). Moreover, past studies have shown that customers would want to be associated with green compliant companies (Kimani, 2015; Freiberg, 2014 and Sadiki, 2012). Buttressing this view, Sparks and Shepherd (1992) argue that customers' behaviours are the main contributors in turning green. Thus, customers' who have worries about sustainable consumption and are pro-environmental do buy eco-friendly products (referred hereafter as green products). However, as a contingency effect, these buying behaviours haven't decreased the market share of non-green products.

This situation is detected by so many literature studies. It is determined by problems such as consumer's cynicism, the complexity of the green product, green persistence and the general trust problem about green marketing. These problems come together in two core issues. Firstly, consumers find the performances of green products are insufficient while secondly, they are suspicious about

implementation. For example, claims such as biodegradable, recyclable and eco-friendly are non-proven, unconvincing and unrealistic claims (Keleş, 2017). Nevertheless, Pettit and Sheppard (1992) have claimed that consumers must pay some cost while they pass from not-green products to green products. Each changed behaviour causes such costs as stress and time wasting for learning different behaviours besides its benefits. Green consuming thus requires some dedication. According to Pettit and Sheppard (1992), such dedication includes (1) paying more for the green, (2) spending effort for some behaviour changes (washing the bottle, picking plastics and fastening and storing newspapers), (3) accepting a defective replacement product for a good, (4) decreasing the consumption. Additionally, green alternatives are not better in terms of their functions yet are so expensive that their labels are not persuasive, and finding green alternatives is hard.

Although, green marketing has been widely explored in developed nations of the world, it appears to be a distant dream in developing nations, as studies on green marketing are conspicuously missing in the context of developing economies like India, Pakistan, Brazil, Russia, China and most Africa countries. It is against this background that this study investigates the factors influencing the pro-environmental consumer behaviour and sustainable consumption in the telecommunications sector in Zimbabwe.

2. PROBLEM STATEMENT

The telecommunications industry contributes to general environmental degradation and land pollution due to its excessive use of physical recharge cards which are not properly discarded. There has therefore been a massive drive for environmental conservation by using electronic airtime vouchers in the past 5 years in Zimbabwe's telecommunications industry. However, a considerable portion of subscribers still prefer to use physical recharge cards for their mobile phones (POTRAZ, 2019). Nevertheless, telecommunications players in Zimbabwe have been slowly adopting green marketing strategies in their business models including the electronic distribution of airtime via Electronic Voucher Distribution (EVD), Mobile money, Hot Recharging, Mobile banking through Unstructured Supplementary Service Data (USSDs) and Pinless recharge. However physical recharge cards are still being distributed by airtime vendors at various towns and cities across the country. According to POTRAZ (2019), physical recharge cards make up close to 40% of airtime distributed in Zimbabwe. This clearly shows that there is sustained buyer behaviour by consumers who still prefer buying physical recharge cards despite the availability of convenient methods of airtime top up, with their many advantages to the consumers and the environment. For instance, consumers will have the convenience of recharging anytime and anywhere in Zimbabwe, whilst keeping the environment and the ecosystem clean and minimizing land pollution.

Despite the Zimbabwean government's attempts to achieve 100% electronic distribution of airtime to minimize land pollution and attain sustainable growth, airtime sales indicate a rather different scenario. As such, this research study therefore is aimed at investigating attitudes, behavioral controls and subjective norms which limit the adoption of electronic recharge cards in Zimbabwe. Local studies have mainly focused on the benefits of electronic airtime sales management, mobile money growth and benefits of electronic recharging in the telecommunications sector. However, the research has not had a clear focus on why consumers have resisted the full adoption of electronic recharging.

3. CONCEPTUAL MODEL DEVELOPMENT

Prior research studies on adoption of innovative technology have used many models, with origins in the disciplines of psychology, information systems and sociology. The purchase and use of electronic recharge vouchers are behavioural acts reliant on technology use. Therefore, models that originate from behavioural psychology and information systems research are relevant and therefore may be applied to understand the different factors that determine the level of electronic recharge voucher adoption in Zimbabwe (Blagoeva & Mijoska 2017: 545). Thus, to understand what influences consumers' use of electronic airtime, this study was couched in the Technology Acceptance Model (TAM) and added subjective norms from the Theory of Planned Behaviour (TPB) as another predictor of consumer intention to use electronic airtime. TAM views perceived ease of use, perceived usefulness and attitude toward use as fundamental determinants of user acceptance (Taherdoost, 2017). The two variables, perceived ease of use and perceived usefulness influence the intention to use a system, which in turn correlates with actual use. Furthermore, the Theory of Planned Behaviour (TPB) links one's beliefs and behaviour (Stevenson, 2017). The TPB states that attitudes toward behaviour, subjective norms and perceived behavioural control together shape an individual's intentions and behaviours. The theory was proposed by Ajzen and Fishbein in 1991 to improve on the predictive power of the theory of reasoned action by including perceived behavioural control. It has since been applied to studies of relations between beliefs, attitudes, behavioural intentions and behaviours in various fields such as advertising, public relations, advertising campaigns and healthcare for smoking, drinking, health services utilization, breastfeeding and substance use, among others. In this study, subjective norms are integrated with the TAM model. The conceptual model of the study is depicted in Figure 1.

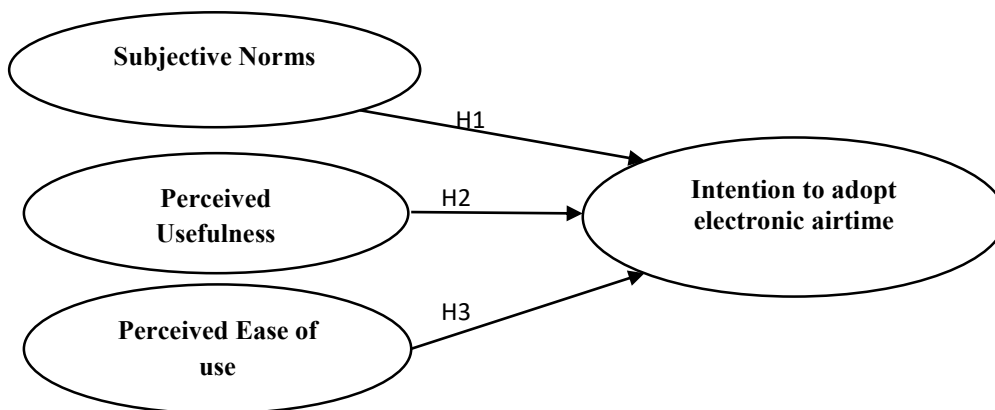


Figure 1: Study Conceptual Framework

Firstly, subjective norms are defined as an individual's perception of whether people important to the individual think the behaviour should be performed. The contribution of the opinion of any given referent is weighted by the strength of motivation which an individual feel to comply with the wishes of that referent (Sheeran, 2018). Thus, a subjective norm is any social influence that may determine whether the individual performs or does not perform a certain behaviour (Ajzen, Brown & Carvajal, 2014). It relates to a person's beliefs about whether peers and people of importance to the person think he or she should engage in the behaviour (Sheeran, 2018). Therefore, in this study, it is proposed that:

H1: There is a positive relationship between subjective norms and the intention to use the electronic recharging platforms in local telecommunications.

Secondly, perceived usefulness is the strength of belief that using a system would enhance job performance or everyday life (Davis, 1989). In the context of this study, perceived usefulness implies that buying electronic recharge cards gives consumers the convenience of recharging anytime and anywhere in Zimbabwe. This thereby reduces the time and travelling costs associated with going to buy physical recharge cards. Accordingly, it is argued that consumers who believe that a technology is endowed with desirable attributes which make life easier are more likely to adopt and use it. This study therefore proposes that:

H2: There is a positive relationship between perceived usefulness and the intention to use the electronic recharging platforms in local telecommunications.

Thirdly, perceived ease of use is the strength of belief that using a system would be free of effort (Isaac, Abdullah, Ramayah, Mutahar & Alrajawy, 2016). Many empirical studies have already confirmed and proved the link between ease of use and user acceptance in various fields of study. Studies of mobile money payments also suggest that ease of use is an important success factor in determining acceptance and use of mobile money payments. For example, research into adoption of mobile payment procedures revealed that most respondents found easy handling important (Pousttchi, 2003). Based on the prior studies therefore, it is presumed that if consumers perceive payment systems and procedures for buying electronic airtime as easy, they will most likely accept and use electronic airtime. Accordingly, the following hypothesis is formulated:

H3: There is a positive relationship between perceived ease of use and the intention to use the electronic recharging system in local telecommunications.

4. METHODOLOGY

An exploratory quantitative research design was adopted for this study. The population of the study included consumers of telecommunications services in the cities of Harare, Bulawayo, Gweru, Kwekwe and Mutare in Zimbabwe. The reason for selecting these cities is that they are the biggest cities in Zimbabwe, with Harare being the capital city. Research participants were asked to record their level of agreement with the statements provided regarding electronic airtime voucher usage. Closed ended questions used a five-point Likert scale, where 1 indicated 'strongly disagree' whilst a 5 indicated 'strongly agree'. The items in the questionnaire were adopted from previous studies and were adapted to suit the context of the study. Through employing a simple random sampling technique, a total of 450 questionnaires were distributed, with 384 filled in correctly and used for data analysis. The mall intercept technique was used by randomly selecting respondents as they were leaving the malls. The study objectives were explained to every respondent and all ethical guidelines were observed and adhered to. Data capturing and coding was done on Ms Excel, with SPSS version 26 used for statistical analysis. The Cronbach's alpha test was used to assess the reliability of the items used. Furthermore, correlation and linear regression analysis were used to test the hypothesised relationships and determine the fitness of the conceptual model in explaining the use and acceptance of electronic airtime as a cue to green marketing.

5. RESULTS AND DISCUSSION

Table 1: Reliability Statistics using Cronbach’s Alpha

| Variable | Cronbach’s Alpha Coefficient | No of items |
|-----------------------|------------------------------|-------------|
| Subjective Norms | 0.733 | 4 |
| Perceived Usefulness | 0.799 | 4 |
| Perceived Ease of use | 0.742 | 4 |

The reliability coefficients for all the scales used in this study were above the acceptable threshold of 0.7, with subjective norms being 0.733, perceived usefulness 0.799 and perceived ease of use with a reliability coefficient of 0.742. Thus, there was high internal consistency in the scales used in this study.

Table 2: Correlation Analysis

| VARIABLES | | | Subjective Norms | Perceived usefulness | Perceived ease of use | Intention to adopt electronic airtime |
|----------------|---------------------------------------|-------------------------|------------------|----------------------|-----------------------|---------------------------------------|
| Spearman’s rho | Intention to adopt electronic airtime | Correlation Coefficient | 0.520** | 0.399** | 0.424** | 1.000 |
| | | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | 0.000 |
| | | N | 384 | 384 | 384 | 384 |

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

The correlation results show a strong, positive, significant relationship between subjective norms and the intention to adopt electronic airtime as indicated by $r=0.520$ and $p=0.05$. This shows that subjective norms are strongly related to consumers’ intentions to adopt electronic airtime. Perceived usefulness and intention to adopt electronic airtime also share a strong positive significant relationship as indicated by $r=0.399$; $p=0.000$. This means that the customer perceptions of the usefulness of electronic airtime relates to their intentions to adopt electronic airtime. Table 4.8 shows that there is a strong positive significant relationship between perceived ease of use and the intention to adopt electronic airtime, as indicated by $r=0.424$; $p=0.00$. This implies that perceived ease of use has a positive correlation with the intention to adopt electronic airtime in the telecommunications sector.

5.1.1 ANOVA Testing

ANOVA was conducted to ascertain the suitability of performing regression analysis in this research study. As indicated in Table 3, an F value of 2.329 which is positive and statistically significant was obtained. According to Cooper and Schindler (2012) a positive F value with statistical significance $p<0.001$ means that it is possible to undertake a regression analysis and that the adopted regression model is fit and suitable for the study.

Table 3: ANOVA Test Results

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|-------|-------|
| 1 | Regression | 9.222 | 21 | 0.470 | 2.329 | 0.000 |
| | Residual | 9.210 | 41 | 0.404 | | |
| | Total | 18.432 | 384 | | | |

a. Predictors: (Constant), Subjective Norms, Perceived Usefulness, Perceived Ease of use

b. Dependent Variable: Adoption of electronic airtime

5.1.2 Regression Analysis

Multiple linear regression analysis was performed to determine the extent to which the independent variables (subjective norms, perceived usefulness and perceived ease of use) influence the dependent variable (consumer intentions to adopt electronic airtime).

Table 4: Regression Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1 | 0.964 | 0.818 | 0.781 | 0.411 |

a. Predictors: (Constant), Subjective Norms, Perceived Usefulness, Perceived Ease of use

b. Dependent Variable: Adoption of electronic airtime

As shown in Table 4, results of the regression model of $R = 0.964$ imply that subjective norms, perceived usefulness and perceived ease of use are predictors of consumers' intentions to adopt electronic airtime. The adjusted R Square value of 0.818 means that the independent variables explain 82% of the variance in intentions to adopt electronic airtime whilst the 18% is explained by other factors.

Table 5: Regression Model Coefficients

| Variable | Beta | t-statistic | p-value | Decision |
|-----------------------|-------|-------------|---------|-------------|
| Subjective Norms | 0.399 | 3.033 | 0.000* | H1 Accepted |
| Perceived Usefulness | 0.412 | 3.267 | 0.000* | H2 Accepted |
| Perceived Ease of use | 0.458 | 3.390 | 0.000* | H3 Accepted |

Table 5 shows that the subjective norms had a beta value of 0.399 with a p-value of 0.001. The positive beta value of 0.399 shows that there is a moderate positive relationship between subjective norms and intention to adopt electronic airtime. The p-value of 0.000 indicated that this positive relationship was significant at a 5% level of significance. Accordingly, the hypothesis that "There is a positive relationship between subjective norms and the intention to adopt electronic airtime" is accepted. These findings agree with those of Wilson and Price (2016), who singled out the importance of family, friends and the society in influencing the adoption of banking services by customers. Thus, as concluded by Wilson and Price (2016), subjective norms affected the adoption of banking services in Canberra. In the same light, a study by Koenig-Lewis, Marquet, Palmer and Zhao (2015)

established that subjective norms influenced the adoption of mobile financial services in Tanzania. Thus, subjective norms are important determinants of consumer adoption of electronic airtime. This study therefore shows that the influence of family, friends and society on the intention to adopt electronic airtime should not be underestimated, as demonstrated by the research findings. Groups such as family or friends provide a reference point, and their sharing of experience in using electronic airtime is important, as this might have ripple effects on viral marketing and further services adoption in future.

Perceived usefulness had a beta value of 0.412 with a p-value of 0.00. This shows that there is a statistically significant strong positive influence of perceived usefulness on intention to adopt electronic airtime. Therefore, the hypothesis that “There is a positive relationship between perceived usefulness and the intention to adopt electronic airtime” is accepted. The findings support those of Wamuyu (2014) who examined internal drivers for the adoption of mobile money in Kenya and concluded that the customer’s view on perceived usefulness of electronic platforms had a strong bearing on customer sign ups and growth in usage. Perceived usefulness varied from customer to customer, but their findings were conclusive and worth noting. Hence, it can be concluded that perceived usefulness is a strong predictor of consumers’ intentions to adopt electronic airtime. It plays a critical role in the intention to adopt electronic airtime as demonstrated by the regression results. It is therefore critical for communication messages by telecommunications’ operators to focus on customer perceptions through availing information which explains how electronic airtime addresses customer pain points. Customers will only adopt electronic airtime if it brings value and proves its usefulness.

As depicted in Table 5, perceived ease of use had a beta value of 0.458 and a p-value of 0.00. There is a significant strong positive influence of perceived ease of use on intention to adopt electronic airtime. Therefore, the hypothesis that “There is a positive relationship between perceived ease of use and the intention to adopt the electronic airtime” is accepted. Along the same line, Grant (2013) established the importance of the ease of use of technology for its adoption in his studies on the Cape Town market for smart financial technologies. His findings point that when customers perceive financial technology to be easy to use in their day to day operations, then adoption will be high. However, adoption was found to drop with added need for training, adaptability, change of lifestyle and additional costs to the customer. In another study, Chong et al (2017) concluded that the perceived ease of use is a key determinant for financial services adoption, as customers prefer services that bring convenience. Accordingly, it can be concluded that perceived ease of use is a strong predictor of intention to adopt electronic airtime by consumers. Thus, electronic airtime should enable the customer to recharge free of effort and with convenience. Telecommunications operators should create awareness messages to educate would be customers on how convenient and easy it is to recharge with electronic airtime. As the research findings show, this will create a perception that electronic airtime is easy to use, hence increasing the likelihood of its adoption.

6. IMPLICATIONS

The findings indicate that subjective norms, perceived ease of use and perceived usefulness are key in consumers’ intentions to adopt and use electronic airtime. As such, it is important for Zimbabwean

telecommunication operators to leverage on subjective norms, perceived ease of use and perceived usefulness and to develop suitable marketing strategies that seek to encourage consumer adoption of electronic airtime. In this view, telecommunication operators should effectively communicate messages that emphasise how buying and using electronic airtime is a socially acceptable, pro-environmental behaviour among the society. Thus, telecommunications advertising can focus on creating family or group references which facilitate a point of association for target customers. Advertising messages, especially through above the line (mass communication models) should be used to address customer perceptions on ease of use and usefulness of electronic airtime. The aim will be to position electronic recharging platforms as addressing everyday pain points for the customer, thus showing how convenient and easy it is to use electronic airtime. Advantages and benefits of electronic airtime such as its availability anywhere at any time should be emphasized. In addition, outdoor advertising through influential figures in the society may bring positive reference to the targeted users in the local market, as advertising helps in creating awareness, over and above encouraging the customer to buy. Thus, telecommunications operators need to drive through a message which shows how easy and user-friendly it is to recharge your phone via different electronic recharging platforms. More information that educates consumers and creates awareness in this regard needs to be communicated. Incentives may also be used which entice consumers to try electronic recharging instead of buying physical recharge cards. Thus, telecommunication operators will also benefit from cost savings derived from reduced production costs of airtime. Ultimately, all these efforts will most likely result in the adoption of electronic airtime, which is an environmentally friendly product, hence encouraging sustainable consumption, less footprint on the environment and preservation of the ecosystem as well reduced pollution.

7. CONCLUSION

The results suggested that consumers' intention to buy electronic airtime can be predicted by subjective norms, perceived ease of use and perceived usefulness. Thus, responses demonstrate that the above are important drivers in influencing consumers' acceptance of electronic airtime in Zimbabwe's telecommunications sector. However, there is still a need for further research to investigate the impact and role of channel intermediaries on shaping of the customer's mindset towards acceptance of electronic airtime. It can be argued that channel intermediaries are motivated to push for physical recharge cards as they earn more commission from them than when consumers use electronic airtime recharge platforms which in most cases bypass the intermediaries. Thus, more in-depth research is required to identify the impact of distribution channel related factors on the adoption of electronic airtime. In addition, the contribution of demographic factors such as age and gender may have a bearing on the intention to adopt electronic airtime platforms, as the youth are said to be more technology savvy than the older generation. Studying this may provide clues as to why physical recharge cards still have a market in the country despite the improvements in technology that bring convenience in airtime recharging anywhere and anytime.

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DIGITAL TRANSFORMATION AS A STRATEGIC APPROACH TO CLIENT-CENTRICITY IN THE INSURANCE INDUSTRY IN SOUTH AFRICA

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ABSTRACT

This paper presents an analysis of the most recent literature on digital transformation in the insurance industry with special emphasis on client-centricity. The study investigated the organisational implications of emerging technologies on the way management formulate and implement client-centricity. Recent technological advancements and the increasing speed of adopting new technologies in the insurance industry were explored to determine the impact they have on organisations in a world where client-centricity is part of the fabric of insurance industries. Companies transform their organisational structures and business-making cultures, starting from client services technologies to management precepts, to obtain a productive digital transformation process. The fact that companies can perform a cost-benefit analysis of digital technologies and be aware of those technologies is significant. Keywords were identified to use in the literature search. Several electronic databases to search were identified. Data was collected from different sources such as published business reviews/reports and peer-reviewed journals to understand digital transformation in the insurance industry. The most obvious finding to emerge from this study is that the majority of articles reviewed and analysed considered digital transformation to be fundamental in improving client-centricity in the insurance industry. Overall, this study reinforces the idea that clients are an important element or determinant of digital transformation. It is remarkable to note that digital transformation and client-centricity within the insurance industry have been approached from different perspectives and a consensus on the definition of client-centricity has not yet been consolidated. Researchers have introduced digital transformation as an element disruptor that fundamentally changes entire industries and organisations and how they approach their clients.

Keywords: Digital transformation; digital technologies; innovation; client-centricity; insurance industry.

1. INTRODUCTION AND BACKGROUND TO THE STUDY

Client expectations and preferences are evolving as a result of the emerging growth of digital technological advancements in the 21st century. Insurers must reconsider how they serve their clients to keep up with changing demands. Currently, clients use a multi-channel approach to research products and services online, compare prices via online platforms and then make purchases and recommendations (Camarate, Smit, Van Rooyen & Chimbuya, 2017). Furthermore, clients tend to prefer a range of communication methods, including text, email, webchat, phone and occasionally in-person. Lately, digital transformation (DX) has emerged as a significant phenomenon under discussion in the global marketplace. While the conventional insurance business model has been

effective for a long time, it is currently in the throes of digital disruptions. How products and services are delivered is therefore evolving gradually. Artificial intelligence, the internet of things (IoT), big data and cloud technology are allowing industries as diverse as retail, media, insurance and financial services to do more for their clients and to do so faster and cheaper.

While DX has a significant impact on clients' perceptions, experiences and behaviours, some scholars believe it lowers companies' earnings and clients' confidence (Catlin & Lorenz, 2017). To deal with the digital era, insurers need to continually analyse its effects on clients. The five-year strategic analysis, which was once a hallmark of exco and board plans, is rapidly becoming out of date due to technological advancement, client behaviour and ever-evolving competition. Insurers' strategies therefore need to be reviewed often. By embracing DX, organisations can engage present-day clients and deliver on their desire for a consistent client experience regardless of platform or venue.

1.1 The South African Context

Large, competitive, technologically advanced and well-capitalised local insurers continue to dominate the South African insurance industry. Insurer competition is seen as a threat by relatively small new entrants attempting to break into the market. Simultaneously, the larger insurers are concerned about the entry of major corporates such as banks, telecommunications and non-traditional players, which have large client bases and are more technologically advanced (Alagidede & Mangenge, 2015). As a result of the increased competitiveness, insurers must reconsider how effective and efficient their client-centric strategies are in gaining market share. In South Africa, insurers face a daunting operating climate due to digital disruption, shifting demographics and evolving client preferences. As a result, a lack of client-centricity has arguably been observed, especially in the South African insurance market (Malherbe & Dixon, 2017). As the digital economy emerges, rivalry grows and resources are stretched, senior management and executives continually turn to client-centricity to find new ways to distinguish themselves from rivals and build client loyalty.

2. LITERATURE REVIEW

2.1 Digital Transformation in the Insurance Industry

Some academics associate DX with business models and strategy, whereas others regard it as a paradigm or a method (Berman, 2012; Berman & Marshall, 2014). However, DX is regarded as a strategy in this study. A strong digital strategy supported by executives and senior management who inculcate a culture of transformation and creativity has a significant impact on the ability to digitally redefine an organisation (Bender, Dahlstrom & Willmott, 2017). While these findings are consistent with previous technological advancements, what distinguishes DX is that risk-taking is becoming a global trend as more digitally advanced businesses pursue new levels of competitive advantage (Kane, Palmer, Phillips, Kiron & Buckley, 2015). As digital disruption reshapes industries, insurers must recognise the need for change to address the disruption; recognising how it works is critical for implementing effective client-centric strategies (Franco, 2018). Globally, DX has progressed from a vague futuristic concept to an urgent action item on senior leaders' strategic agendas (Bradley,

Loucks, Macaulay, Noronha & Wade, 2015). The internet and smart devices have given clients a plethora of options for shopping from anywhere, at any time, and has allowed them to compare services and goods in the palm of their hand, thus challenging conventional business models. “The notion that insurance is a low-engagement, disintermediated category in which client relationships can be assigned to agents and brokers is gradually becoming obsolete” (Catlin & Lorenz, 2017). Instead, emerging technology and data analysis allow insurers to get to know their clients better.

Digital technologies (DT) are evolving the competitive landscape, as leading insurers use them not only to enhance their core operations, but also to develop entirely new business models. However, established insurers have valuable historical records, but it is questionable if they would be able to keep up with potential entrants that will have access to more insightful real-time data obtained from the IoT, social media and other digital records through data analytics optimisation (Catlin & Lorenz, 2017). Client protection and information privacy are global developments that are shaping policy and regulation in the insurance industry ((Maupa & Taba 2018) For insurers and other IoT technology users, technological advances have a direct impact on the growth of data privacy and security issues (Elijah, Rahman, Orikumhi, Leow & Hindia, 2018). Clients are often unaware that their data is being transmitted through networks and storage devices used by insurers and service providers (Porter & Heppelmann, 2015).

2.2 Value Proposition and Client-centricity

DT will more specifically cater to demand, so clients are no longer obligated to purchase components of a product they do not like. For example, iTunes eliminates the need to purchase an entire album by allowing clients to choose the specific songs they want to listen to. Businesses are vulnerable to disruption as a result of this unbundling, particularly if they cross-subsidise parts of their service, as insurers do, with direct distribution channels covering the cost of more expensive agency channels. Clients will accept and use interactive technology as they achieve more positive experiences and results from such interactions (Marek & Woźniczka, 2017). As the number of transactions increases, insurers can naturally collect more utilisation data from their clients. When the number of data points increases, so does the accuracy of analytics (Porter & Heppelmann, 2015). Fuster and Scherrer (2015) evaluate how new ideas, solutions and services can be generated by gathering, analysing and processing IoT data provided by smart devices on product use, contents and consumption. The ability to use IoT data to create or enhance goods, as well as to construct useful services enables insurers to expand their value proposition and reshape themselves to capitalise on the new opportunities presented by smart devices (Catlin, Lorenz, Nandan, Sharma & Waschto, 2018). With new value propositions in play, it will be critical to reconsider the insurer's operating model to be in alignment with the client's changing preferences. Most insurers continue to operate on very conventional models, with the firm and IT functions operating separately. However, this does not provide the agility needed by insurers today. The imperative is to move to a more collaborative model in which product owners and technology enablers are embedded in each other's activities (Shi, Balasubramanian & Wilms, 2016). It is critical to make a client an integral part of the collaborative model. Since the value proposition for DX projects extends through the entire organisation, it has the potential to drive breakthrough success both internally via improved productivity and process

automation, and externally through increased speed to market and richer client experiences. As a result, insurers must be bold in developing enterprise-scale digital strategies that are in alignment with their client-centric strategies.

2.3 Theoretical Framework

The Technology Acceptance Model (TAM) was a convenient model for understanding technology issues related to the system used in the insurance industry in South Africa. It is a theoretical framework developed by Davis in 1989 which identifies perceived usefulness, ease of use and cultural orientation of the decision-maker as key drivers of technology adoption (Ordanini & Arbore, 2008). It consists of two beliefs: the perceived use of technology and the perceived ease of use of technology, which determine attitudes to adopt new technologies within the insurance industry. Users' perception towards adoption will influence the adopter's behaviour either positively or negatively in the future concerning the new technology.

2.4 Research Questions

- How does digital transformation impact client-centricity?
- How does leadership influence digital transformation within the organisation?

3. METHODOLOGY

This study aimed to explore DX as a strategic approach for client-centricity. A scholarly systematic literature search was performed to retrieve credible peer-reviewed and academic research articles in this field. A systematic literature review "is a review of an existing body of literature that follows a transparent and reproducible methodology in searching, assessing its quality and synthesizing it, with a high level of objectivity" (Kraus, Breier & Dasí-Rodríguez, 2020). To ensure a robust and thorough literature review, the researcher gathered a vast amount of data through search keywords. Scholarly and other electronic databases were used in the search, namely JSTOR, Web of Science (WoS), Education Resources Information Centre (ERIC) and ScienceDirect, which are the most relevant scientific information platforms that access the scientific databases and the most significant publications of the different areas of knowledge.

The review was focused on a systematic literature search in selected databases that followed established guidelines for using multiple databases, defining inclusion and exclusion criteria for publications chosen for review and maintaining transparency in the selection process (Bendermacher, Oude Egbrink, Wolfhagen & Dolmans, 2016). The procedure for making such recommendations is described below. In this systematic analysis, the following search words were used in the context of South Africa:

- (i) "digital transformation*" AND "insurance industry"
- (ii) "digital technologies*" AND "insurance industry"
- (iii) "client centricity*" AND "insurance industry"
- (iv) "client centricity*" AND "digital transformation"

The search was limited to title, abstract and keywords in the databases as a deliberate search strategy to decrease the number of publications to read as well as increase the precision of the information search (Savolainen, 2016). The main rationale was to identify publications that explicitly defined or discussed the concepts of digital transformation, client-centricity and digital technologies in the insurance industry. The reasoning was that if the authors included these concepts, then these concepts were central to the publications as well (Syed & Collins-Thompson, 2017).

3.1 Inclusion and Exclusion Criteria for Selection of Publications

By defining additional selection criteria, the number of publications was restricted. The publications had to be peer-reviewed journals or business review reports. Publications such as policy documents and books were omitted because the aim was to systematically capture how DX and DT are being used and identified within the insurance industry in South Africa in relation to client-centricity. The year of publication was set to 2011 to 2021. The searches were conducted between November 2020 and March 2021. Initially, 77 publications met the inclusion criteria. However, in the manual screening of the publications 11 papers were excluded (the reasons being that 5 were not in English, 3 were book reviews, 1 was a policy document and 2 were duplicates), leaving 66 publications as review material. The 66 publications included 27 on digital technology, 14 on client-centricity and 24 on DX, and were subjected to further manual screening.

3.2 Data Analysis

The researcher gained an overall comprehension of the literature as well as the main issues in the phenomenon under study by reading and rereading it. This understanding allowed the researcher to concentrate on the most important constructs that had been identified and presented in the literature. The ability of researchers to generate ideas and make sense of data is reliant on their exposure to literature. Immersion is attained by carefully reading transcripts and creating a list of key, recurrent ideas and issues in the literature (Vaismoradi, Jones, Turunen & Snelgrove, 2016). One of the most important steps in thematic analysis is coding, which is used to categorise data into groups with similar definitions, reducing large amounts of data into manageable chunks of information (Maguire & Delahunt, 2017). The first activity involved identifying categories, to which the researcher subsequently attached meaningful ‘bits’ or ‘chunks’ of the original data (see table 1 below). This allowed the rearranging of original data into analytical categories. Each category was given a suitable name, usually referred to as a code or label (Clarke & Braun, 2014) – “code” in this study. Data was organised in a meaningful and systematic way through coding. Each segment of data was coded that was relevant to or captured something interesting about the research question. Not every piece of the text was coded. The researcher employed open coding as there were no pre-set codes, but had to develop and modify the codes throughout the coding process (Vaismoradi et al., 2016). This was done by hand initially, working through hard copies of the transcripts with pens and highlighters. However, qualitative data analytic software (e.g. ATLAS, Nvivo) can be very useful, particularly with large data sets. Generating categories and reorganising data according to themes means that the researcher is engaged in the process of data analysis (Dey, 2003; Yin, 2009). The researcher continued to search for key themes and patterns or relationships in the rearranged data. This led to revised categories and the continuous rearranging of data to search for meaning in the data set.

3.3 Search for Themes

| Category: Leadership | Category: Client experience | Category: Digital/technological infrastructure |
|--|---|---|
| <p>Codes</p> <ul style="list-style-type: none"> • Senior management • Executives • Chief executive officer • Chief information officer • Chief technology officer • Management practices • Client-centric strategy • Digital strategy • Culture of transformation • Cultural shift • Exco • Management capabilities | <p>Codes</p> <ul style="list-style-type: none"> • Client preferences • Integrating real-time customer interactions • Client perceptions • Shifting demographics • Customer processes • Customised solutions • Customer integration • Customisation • Client satisfaction • Client journeys | <p>Codes</p> <ul style="list-style-type: none"> • Lack of digital infrastructure • Appropriate digital infrastructure • IT capabilities • Digital architecture • Smart devices • Internet • Artificial intelligence • Social media • Cloud adoption • Automation/digitalisation • IoT • Data analytics • Robotic automation process |

analytical process is divided into six phases, according to Braun and Clarke (2006). This study did not follow a waterfall model of sequentially progressing from one phase to the next. It was more iterative in nature, with analysis involving switching back and forth between phases to make sense of the results (Braun & Clarke, 2006). The process of analysing data revealed themes, patterns and relationships which were verified as important for the study. A theme is a pattern that encapsulates something important or intriguing about the data and/or research issue. There are no hard and fast rules on what constitutes a theme, as Braun and Clarke (2006) describe. The significance of a theme characterises it. In this case, the researcher examined codes and observed that some of them fit together to form a theme. For example, several codes related to how DX enhanced the client journey and experience. These were collated into an initial theme called “improved client experience”. By the end of this step, the codes had been organised into categories and then broader themes that seemed to say something specific about the research question. Some codes were associated with one theme, although some were associated with more than one.

The three main categories are leadership, client experience and digital/technological infrastructure. Table 1.

4. FINDINGS

A total of three main themes emerged from the data analysis as indicated below.

Main Themes

Theme 1: Improved client experience

Theme 2: Leadership influence

Theme 3: Availability of advanced digital/technological infrastructure

Theme 1: Improved client experience

With respect to the first research question, the findings of the current study seem to indicate that central to capturing value from client-centricity is recognising how DX drives a fundamental shift in the way insurers interact with clients. Client behaviour is rapidly evolving in this digital age, propelled by an unparalleled pace of digital advancement and a wide range of smart technologies. The single most striking observation to emerge from the study was that since the mid-2000s, a growing number of clients are willing to transact and manage their needs on a completely digital basis, with little or no personal interaction. Furthermore, the study indicates that DT and the redesign of client journeys help insurers to move quickly and seamlessly across channels and touchpoints and to deliver personalised communications. Arguably, DX improves client experience as they are no longer subjected to what they perceive to be cumbersome and inconvenient processes defined by an insurer's internal functional silos and technological limitations (Schmidt, 2018). Indeed, DX in other industries has led clients to expect nothing less than this level of ease and convenience. Almost every client-facing touchpoint is part of a journey that could be digitally transformed to some degree to make it more satisfying for clients. A considerable amount of literature has been published on simplified business models through DX. These studies have shown significant revenue growth and cost efficiencies as clients want simplicity and convenience. For example, instead of a time-consuming process in which they have to complete new paperwork for each form of policy they hold each time they request a new product or service, a single customer touchpoint may be used. Overall, it was observed that 75% of the articles reviewed and analysed considered DX to be fundamental in improving client-centricity in the insurance industry. Furthermore, 65% indicated clients as an important element or determinant of DX.

Theme 2: Leadership influence

According to several reports, any DX that does not have the attention of the CEO and the leadership team will collapse. Given how often CEO involvement is positioned as the remedy, this assertion seems almost glib. The evidence from this study has shown that the leadership cannot simply sanction DX; it has to communicate the vision of what needs to be achieved and to demonstrate that DX is an unquestionable priority. The most obvious finding to emerge from this study is that to set DX on the right course, the leadership must place it at the core of its agenda and understand the magnitude of that undertaking. Furthermore, the findings of this research provide insights for a growing number of executives currently facing up to digital reality as they understand that DX can significantly improve client-centricity. Without strong leadership, DX will not take place quickly enough. About a third of

the publications (33.3%) analysed identify a lack of leadership capabilities and drive as major DX challenges to client-centricity.

Theme 3: Availability of advanced digital/technological infrastructure

The findings reveal that the inevitable advancement of DT has placed the traditionally slow-moving insurance sector under greater pressure than ever before. Insurers are using DT to offer their clients a new, online experience, laying the foundation for a fully integrated digital offering. What it took to be a better player in the 20th century is vastly different from what it takes to gain a competitive edge in the 21st. The ability to adapt to and leverage changes occurring in the digital age defines the 21st-century insurer. The findings of this study complement those of earlier studies that reveal clients as having developed a propensity to manage their insurer relationship; hence the need for a stable advanced digital infrastructure to support this (Camarate et al., 2017). Overall, the research indicates that approximately 41 publications reviewed (62%) pointed out stable advanced digital IT infrastructure as key in supporting DX. Findings indicate that out-of-date or legacy systems have proven to be the single largest stumbling block to implementing DX for insurers. In the same vein, one of the more significant findings to emerge from this study is that executives and management of incumbents struggle with switching from legacy data systems to more advanced and more flexible architecture to store and harness big data.

5. DISCUSSION AND CONCLUSION

This paper is timely and relevant, as technological advances in the 21st century are having a significant impact on insurers. The paper advances the literature by linking the past with the present by forming and comparing an image of the existing literature on DX and client-centricity in the South African insurance industry. As a result, it provides a basis for future study in other sectors. The study's first question was: "How does DX impact client-centricity?" The findings from several studies suggest that DX is disrupting the insurance marketplace by opening up new routes to market and new ways of engaging with clients (Signé & Johnson, 2020). This observation may also support the findings of Schmidt (2018) who suggests the importance of DX in laying a foundation for a fully integrated digital offering in enhancing the client experience. These results provide further support for a possible explanation that clients embrace and adopt interactive technology as they increasingly gain positive experiences and outcomes from such engagements (Marek & Woźniczka, 2017). With respect to the second research question, the current study found that an emphasis on the presence and significance of a leadership influence in DX adoption is critical. Finally, the study suggests that some scholars raise critical concerns about the availability of stable advanced digital infrastructure (Zanni & Rios, 2018). Considering all this evidence, digital client-centricity requires an integrated approach in addressing all client touchpoints and creating an omnichannel approach. Furthermore, some evidence indicates that an insurer's ability to offer its clients digital interactions is no longer a unique differentiator, but rather a basic requirement to meet the needs of modern clients (Hirt & Willmott, 2014).

Recommendations

By identifying the catalysts for disruption and continuously monitoring their businesses, insurers, in general, will be able to lead the wave of change as it gathers traction. As a result, insurers must rethink their traditional business models to keep up with the technological advancements that are reshaping the global landscape. Furthermore, it is critical to comprehend the essence of the value generated by transformation. Such research will have a huge effect on theory as well as practice. Insurers must continually evaluate how digital disruption is impacting client behaviour, rethink their client and render the client core to DX to effectively ride this wave of change. Leaders need to focus and steer overall DX by putting clients at the centre of their organisation strategy. Building a platform business necessitates cutting-edge technology as well as a fast and flexible time to market. This is not achievable on legacy systems alone. Insurers will have to invest in client-facing digital platforms and intelligent automation to streamline processes, and develop smart contracts for claims and predictive underwriting. Today's digital consumer is increasingly connected, has more access to information and expects businesses to instantly react to their needs.

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TILISATION OF THE IZINDABA ZOKUDLA FARMERS' LAB FACEBOOK PAGE AS A VIRTUAL COMMUNITY OF PRACTICE ENGAGEMENT PLATFORM

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ABSTRACT

Networking on a Virtual Community of Practice (VCoP) can foster collaboration between stakeholders through the sharing of real-time information and establishing a sustainable value chain on a digital platform. Digital platforms facilitate market access for urban farmers and stakeholders engaged in sustainable agriculture, creating opportunities for information and communication technology to turn agricultural value chains into sustainable food systems. This article describes how this takes place on Facebook. Izindaba Zokudla (IZ) was established as a face-to-face action research project to facilitate engagement among stakeholders in the urban farming community. A Facebook page (and further digital platforms) were created to accelerate the exchange of information and knowledge sharing between members and stakeholders. iZindaba Zokudla aims to create communities of practice with emerging entrepreneurs in urban agriculture, across multiple platforms on the internet. However, the Facebook page anchors the digital presence of iZindaba Zokudla, and this paper investigates how it may be utilised to foster communities of practice on the internet that aim for a sustainable food system. From the iZindaba Zokudla Facebook page, quantitative data on engagement with videos, pictures, updates generated or uploaded by the iZindaba Zokudla platform administrator and by the members/non-members were extracted. This data reflects the use of the iZindaba Zokudla Facebook page from the 11th of July 2019 to the 11th of July 2020 and includes data on specific postings, a course on circular enterprises, a “tea party” to showcase student projects, and a request for self-made mini-documentaries on farmer enterprises. These basic statistics are presented and interpreted in this paper, to illustrate how the Facebook page’s usage reflects efforts to build communities of practice. We supplement the quantitative data with limited qualitative insights as administrators and activists engaged in this project. The iZindaba Zokudla Page content such as videos and generated texts are related to agricultural topics. Analysing demographic or engagement data, such as gender and place, likes and views, however, have bearing on how we, and participants in these activities themselves, create communities of practice amongst ourselves. We gather and then interpret the quantitative data available on Facebook in order to show how actors construct communities of practice amongst themselves using the affordances available on Facebook. From the

extent of page engagement, page likes, video views, received post, post discussed, post types and messaging, insight was gained into the following features of communities of practice: The complexities of knowledge sharing and learning, and networking within the iZindaba Zokudla Facebook Page, identity creation, and reflection are illustrated in our analysis. Facebook affords limited albeit functional educational benefits, and the affordances on Facebook can stimulate the learning, networking and identity formation of actors in the food system and wider economy. We are also able to govern them in a limited sense through such engagement, and this indicates that communities of practice can be created through social media engagement, although there are many unanswered questions on using third party platforms for educational and economic aims.

Keywords: iZindaba Zokudla; virtual community of practice; urban agriculture; knowledge sharing; digital platform

1. INTRODUCTION

iZindaba Zokudla (conversations about food) aims to create opportunities for urban agriculture in a sustainable food system. It adapted stakeholder engagement methods for sustainable economic development from the Dutch NGO TransForum (Malan, 2016; 2020) for urban agriculture and technology design in South Africa. Since its inception in 2013, iZindaba Zokudla has collaborated with more than 150 experts and has assisted more than 1000 farmers and “Agripreneurs” (iZindaba Zokudla, n.d.) to create sustainable food enterprises in the south African food System. The iZindaba Zokudla *Farmers’ Lab* is organised as a monthly event and presents a face-to-face platform to induce networking and information exchange between farmers and agripreneurs. (UJ News & Events, 2015). This formal platform allows a diverse group of practitioners to share and propose innovation, research and technological practices in the agricultural field (Malan 2020). The iZindaba Zokudla farmers’ lab is an interactive arena that encourages farmers and agripreneurs to participate and create transformational changes towards a sustainable food system. The project has created the Facebook page and a website (izindabazokudla.com) amongst others that has created a digital presence. This paper primarily analyses the activities on this Facebook page to ask the question: How do actors in the food system use Facebook to organise learning, create identities and networks, and to govern the food system? To what extent would these actions contribute to creating communities of practice that aim to create sustainable enterprises? We analyse Facebook data in this article to answer these questions.

Virtual community of practice (VCoP)

A virtual community of practice (VCoP) is a virtual community, which could be found on a platform like Facebook, connecting members around the globe, remotely collaborating on common interests and requiring no face-to-face interaction (Lee & Suzuki, 2020). This is consistent with the classical formulation of communities of practice as Lavé and Wenger originally coined the term (Wenger 1998). The features of actual communities of practice are reproduced in the digital domain and this is what we probe in this paper. The internet has “has presented itself as one of the great democratic possibilities of the social media age” (Flew 2020: 2) that unfortunately “produces a viral, profit-driven distortion of identity politics [or] ‘identity economics,’ a new version of traditional market research”

that rewards “individual demagoguery and vigilance” as part of a neo colonialist and capitalist project (Lim 2020: 1). Hence: “Social media, for example, not only capture human behaviour, but also have the potential to alter important patterns of human society, such as the speed of information flows, the scope of media production and the actors responsible for defining public opinion.” (Lazer, et al 2021:190).

Agrawal and Sneekenes (2017) characterise knowledge-sharing on a VCoP as a cooperative act and this exchange suggests a voluntary gesture by a person who takes part in the exchange of information. From a study by Lee and Suzuki (2020) it was observed that the purpose and essence of the information exchange between users on a VCoP platform is still unclear. How do these digital exchanges create a community of practice?

2. IZINDABA ZOKUDLA FACEBOOK PAGE AS A VCoP

In 2013, the iZindaba Zokudla Facebook page was established to be an informative tool for its members. Information sharing is accomplished by means of posts containing videos, text or pictures. With the growth in the iZindaba Zokudla membership and the evolution of the page into a more participative platform, the following forms of communication are encouraged:

- Posts: A post may be grouped as, but not limited to videos, text and pictures which would subsequently appear on the Facebook page of iZindaba Zokudla.
- Comments: A comment is a response to an iZindaba Zokudla post or a response to a reaction from another member/non-member.
- Messages: A message is private communication between a member/non-member and iZindaba Zokudla and does not appear as a post on the main page.

The aim of iZindaba Zokudla Facebook page is not only to share information but to foster participation and feedback amongst members facilitating a virtual platform for networking and sharing of ideas.

The purpose of this study is to gain a detailed understanding of the fundamental complexities of the evolving knowledge sharing and networking process within the iZindaba Zokudla Facebook page. The analysis is limited by the analytics Facebook affords us to complete, supplemented by qualitative observations as they pertain to the analysis possible on the Facebook system. We compare this to actual posts and activities to gain an understanding of the dynamics that play out between real and virtual activities in society. We analyse the use of the iZindaba Zokudla Facebook page from the 11th of July 2019 to the 11th of July 2020. We analyse data on specific postings: postings about a course on circular enterprises, a “tea party” event on Facebook to showcase student projects, and a request for self-made mini-documentaries on farmer enterprises.

Key questions in the analysis of digital communities of practice

The research, therefore, aims to assess the degree to which the 4 key features of communities of practice observed to date are evident in this Virtual Community of Practice (VCoP). We thus illuminate the following:

- Governance, reflection and authority: The actions and activities of the administrators set the tone for interaction. We describe below the administrators' roles during this time, including their Messaging response rates, the permissions afforded to participants, and the qualitative approach we as administrators have adopted;
- Learning: We analyse the basic statistics afforded by Facebook analytics to illuminate the ways learning takes place amongst participants: We thus interpret the number of posts made, the number of comments and the number of extended comments made as indicators of how learning proceeds amongst participants on the Facebook page. We also include reference to posts that were viewed longer than 30 seconds, posts that are linked to advertised posts or boosts to encourage views or participation, page likes per day and total repetitive views. This enables us to comment further on administrator roles and how this encourages learning amongst participants;
- We are also able to comment on how participants construct identities amongst themselves on Facebook as a platform. Here we qualitatively interpret demographics and other data on Facebook supplemented by qualitative background knowledge we have as active participants ourselves in the project; and,
- We are also able to comment on the networking evident in communities of practice by an interpretation of the geographic spread, gender and other features available on Facebook analytics.

The iZindaba Zokudla Facebook page generates information on how actors upload content on the page and includes pertinent videos and posts for its community, encompassing not only different subjects related to the needs of its members but also promoting participation. The management and design of the iZindaba Zokudla Facebook page allows analysis of the available data, and this data is used here based-on the permission obtained through Facebook itself. This anonymous quantitative data is analysed here supplemented by qualitative observations recorded in our own posts and fieldwork diaries we keep. All identifiable information is abstracted and anonymised in order to protect the identities of participants, and the second author has obtained permission for this approach (Humanities ethical clearance no. REC-01-131-2020).

For the purpose of this study, the determinants are measured over a period of 180 days, except where otherwise stated. The iZindaba Zokudla Facebook page content, such as videos and generated texts, are related to agricultural topics. However, the emphasis here is not on the type of information shared but on the extent of the engagement on the main page posts, between members and iZindaba Zokudla and between members themselves.

3. RESULTS AND DISCUSSION

Governance and administrator roles:

The administrator roles set the boundaries and outlines of the roles of participants on the Facebook page. In this regard, members of groups need to be approved by us, and only members of groups are able to post. This allows only “approved” participants to participate and this creates a sense of “belonging” to the page and community and creates a marker of identity: only those “approved” are

deemed members. This is sufficient, in our opinion, to create an internal dynamic that maybe enough to stimulate the creation of communities of practice amongst participants.

Another feature of the Facebook page deserves mention: us as administrators also produce content – in the form of reports and editorials accompanying every event – real life and digital, and we also re-post content obtained from ancillary websites. This has created content rich, and deliberate character for the page, and this is the beginnings of identity creation. Sharing content builds a greater identity for the sector as well, which also creates identity in the local group. The character and underlying narrative of these postings all point to a sustainable and alternative food system, which is consistent with the way in which South Africa as a country needs to redevelop its food system. The identity creation capacity and roles of administrators are thus consistent with larger trends in South Africa and elsewhere where the position of emerging, smallholder and urban farmers are revaluated.

The effects of the content creation by administrators is directly tied to the messaging the administrators engage in. Messaging allows members/non-members to communicate with iZindaba Zokudla privately. Members may also utilise messenger to interact directly with one another. The volume and frequency at which messenger messages are answered is referred to as the response rate. This is measured against messenger's quickest response time of 90 percent. The current response rate of iZindaba Zokudla on 103 messaging connections is a response rate of 82% (0 hrs 51 min average). This indicates the prevalence and effects of administrators on the page and reinforces the finding that the activity of an administrator sets the tone and context for the community of practice to emerge.

Hence, we may expect communities of practice to build new and alternative communities in the food system, based-on the content of the iZindaba Zokudla Facebook page. New groups thus aim to re-create new food systems and enterprises and new production regimes a.o. consistent with this overall identity. This sets in motion a dynamic amongst members that generates postings and activity on the Facebook page which we analyse in this paper.

iZindaba Zokudla members' demographics: Building identities

The demographic details on the Facebook page enable a deeper analysis of identity creation on the platform. We are able to analyse age, gender, location, and language of the members who engage with posts on the iZindaba Zokudla Facebook page.

Gender and age of participants on Izindaba Zokudla

The demographic data for users of iZindaba Zokudla based on age and gender appear in Figure 1. Males are overrepresented in age groups up to 44 years of age, and women are majority represented in older ages. This points to gender differences in the cohort on Facebook that reproduces societal gender differences. This allows us to comment on the transformative potential that Facebook affords. It clearly has to reflect society, but if we look at the evidence of deeper processes such as learning and networking, it may be possible to conclude that Facebook organising does create space for transformative actions. a

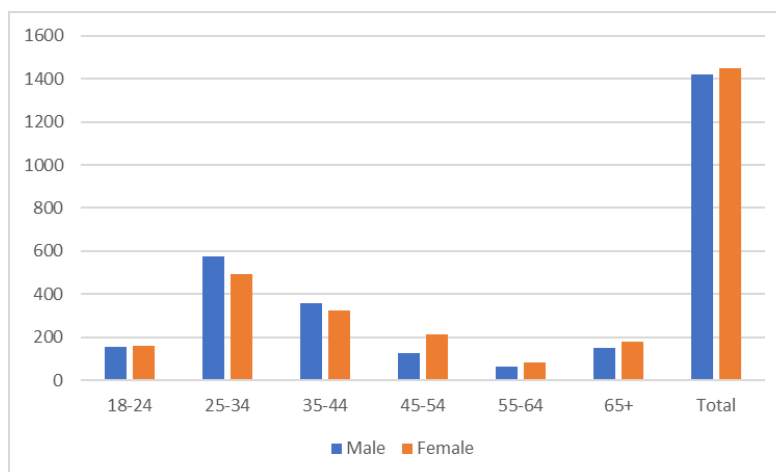


Figure 1. Gender by age

Westholm and Ostwald (2020) found that in terms of agriculture and food production the emphasis has always been on men and this is reflected here amongst the youth. This immediately emphasises a lack of specific focus on gender in iZindaba Zokudla's activities, although women are strongly represented in the real-life Farmers Lab attendance figures and as older ages. However, there is no parity amongst the economically active ages, and this is deliberated upon in this paper.

This VCOP create an opportunity for women to empower themselves by creating linkages within the industry and communities, but this analysis clearly indicates that the use of Facebook does not immediately afford us opportunity to transform this aspect of agriculture.

Research compiled by Forero and Álvarez (2019) recognised that young adults are more likely to establish activist ideologies that promote social responsibility and social society. Figure 2 indicates the combined young adult total as 1383 persons. This constitutes 47% of the iZindaba Zokudla Facebook members. Such information is significant to iZindaba Zokudla in facilitating change in the agricultural sector empowering young adults to participate. This lamentably does not indicate a strong transformative potential on Facebook, as the demographics do not indicate any changes are underway.

Location of members

Within the framework of rapid urbanization, urban farming has now become an important source of food and income. This creates an earning opportunity for many – with support and links to their communities in order to gain empowerment and new identities as autonomous, urban, entrepreneurs rather than farmers and caregivers (Westholm & Ostwald 2020). The place of urban agriculture and urban identities can be usefully analysed by investigating the locations from where activity on the Facebook page takes place.

Location, for iZindaba Zokudla, is crucial to identify the target population and determining the highest need ratio for information, connectivity and networking in specific geographical areas. Three provinces have the highest concentration of members, namely the Gauteng province followed by KwaZulu Natal and the Western Cape (Figure 2). This information identifies a future opportunity to expand the iZindaba Zokudla Farmer's Labs in KwaZulu Natal and the Western Cape. However, the

prominence of an urban identity, as opposed to the “usual” rural identity that may accompany agriculture is emphasised by this information. Postings emanate mostly from urban centres, and this indicates a consistency, particularly when the salience of Johannesburg as a source of postings is considered, between the activities on the page and the urban identity of those who post. iZindaba Zokudla has thus been able to penetrate the urban agricultural space and has had effects on the urban area. This indicates a consistency in identity with urban agriculture, but also that real-life organising (which has taken place exclusively in Johannesburg) has determined much of the reach of digital organising. This suggests that digital organising may be decisively determined by actual and real-life events. We will enhance this finding, when we look at how postings correlate with real actual events.

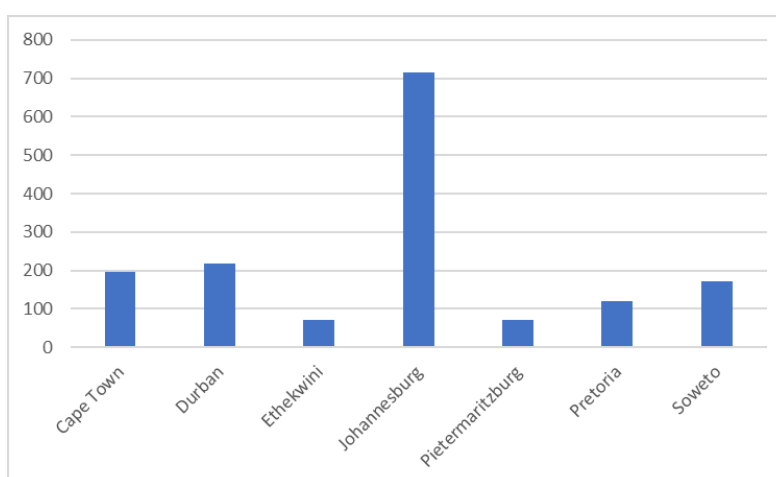


Figure 2. Average daily view over seven major member cities

Salemink, Strijker, and Bosworth (2017) emphasise that rural areas lack the data infrastructure necessary to keep up with advances in internet technology, resulting in a digital spatial divide thus excluding these geographical areas. This seems to be evident from how iZindaba Zokudla uses the Facebook page and suggests that the use of Facebook reinforces present divides instead of transforming them.

Languages

Registering a Facebook profile involves choosing a language that participants want to connect on Facebook, which can be found in language settings. From the 23 languages spoken in South Africa, the preferred language on the iZindaba Zokudla page is indicated as English, both American and British (Figure 4). The salience of English suggests that the identities that participants are creating are novel, as most participants in the Labs and digital events are not native English speakers. This stands in contrast to a gendered and a youth analysis, and suggests the use of Facebook holds some transformative potential, as an urban agricultural identity, that is new, seems to be emerging amongst participants in the iZindaba Zokudla Facebook page.

Learning: Engagement on the iZindaba Zokudla Facebook page

A platform administrator needs to regularly review and develop content to generate an efficient Facebook account. To assist in this process, it necessary to determine the extent to which members

engage with content on the Facebook page. Engagement on the iZindaba Zokudla Facebook page was measured in terms of likes, including posts such as videos, text and pictures and direct messaging to iZindaba Zokudla subsequent to postings on a course on circular enterprises on the 11th of April 2020, a “tea party” on the 18th of October 2020, and an invitation to members to upload “mini-documentaries” on their enterprises on the 13th of April 2020. These give an indication of learning that takes place, and how this may be emerging on the Facebook system.

Engagement

The goal is to promote engagement and information sharing across various types of posts on the iZindaba Zokudla Facebook page. This is measured by how the message is received by participating members/non-members on the page. There are various means of showing interest within different contexts.

Member /non-members’ engagement derive from how many views a post generates while comments and shares indicate which types of posts resonate best with members / non-members. Figure 3 indicates the rise in participation on the iZindaba Zokudla Facebook page during the period in question. This follows the engagements we undertook on the page during this time, and the postings in March April 2020 indicate the rise in participation. We are thus confident that interaction is taking place and that a dynamic has set in that could motivate participants to do more. We show below how this occurred. When we correlate this with events a clearer picture emerges. From Figure 3 it follows that engagement per day was steadily increasing between 1/7/2020 to 3/7/2020 but showed a sharp decline thereafter until 4/7/2020, followed by a steep incline. When these likes occurred, iZindaba Zokudla was launching the Virtual Farmers’ Lab and these four initial posting reached 3005 people with more than 890 recording more than 3 second views.

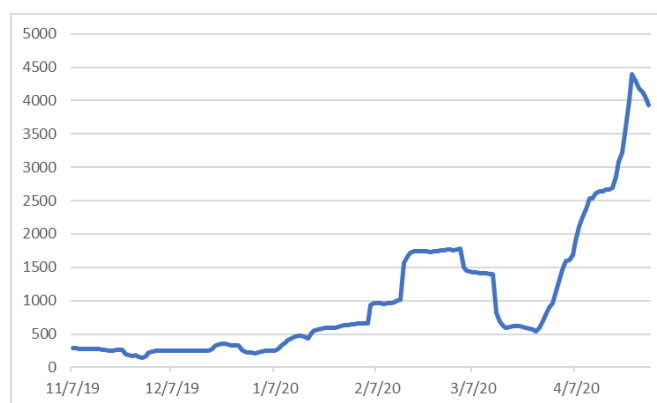


Figure 3. Page engagement per day by means of post or like

Total number of likes on the iZindaba Zokudla Page

A *like* or *other* response is the simplest form of interaction. This implies a member/non-member accepts your messages, considers them insightful or agrees with the post. From Figure 4 it is evident that spikes in likes occurred, and these could be linked to advertised posts or boosts to encourage views or participation. The increase in activity suggests the commercialised system of boosting posts can be used to great effect in building a community of practice. Participants clearly react to positing’s,

and this suggests that a community of practice would need constant and consistent activity to become established and active. In Figure 4, we see postings increase subsequent to the first announcement on SMS of the launch of the Virtual Lab. This shows the growth of participation on the page, and the interrelation of this with other forms of media, the SMS announcement.

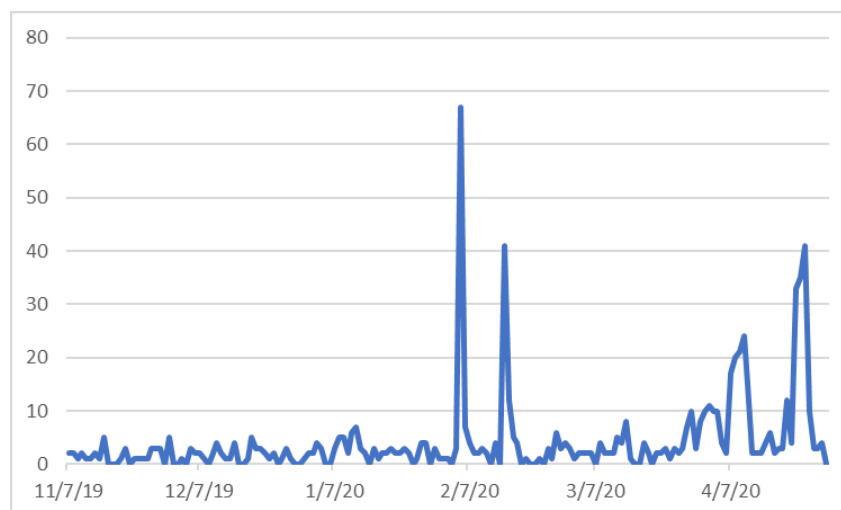


Figure 4. Page likes per day

We have experienced a substantial growth of the overall iZindaba Zokudla page likes, and this has followed the slow but steady increase in activity by administrators. Administrators' capacity can be used to enable such communities of practice to form in the digital terrain, and this has governance effects. This is an indication members/non-member support the information shared and thereby creating a feeling of belonging in the community.

One of the key strategies used to optimise the use of the iZindaba Zokudla Facebook page was to create the Virtual Farmers' Lab during the Covid 19 lockdown, and above we have contemplated the effects of this announcement.

A key feature of involving participants in the Lab was to invite them to create short 3-5-minute videos on specific topics as part of a series. The videos were launched as premiers and interaction between the convener and the audience encouraged through an online presence to respond immediately to participant questions.

This has clearly stimulated activity and may emphasise not necessarily the possibility to build continuity across digital and real life domains, but also that multiple platforms maybe necessary to create communities of practice. This finding is highly tentative as the analytics on Facebook is limited, but our qualitative experience with using multiple platforms suggests this. However, the use of multiple cross-platform opportunities may be needed for the effective governance of the food system. Our findings would support such a proliferation of platforms.

Video views

iZindaba Zokudla was compelled to launch a Virtual Lab due to the Covid 19 lockdown. Two interactive labs were introduced to date and 12 brief informative videos of three to five minute each

were released. Figure 5, indicate the videos that were viewed longer than 30 seconds. Therefore, the topics were interesting and kept members engaged. This dramatic spike shows learning activities are taking place and we elaborate on this below.

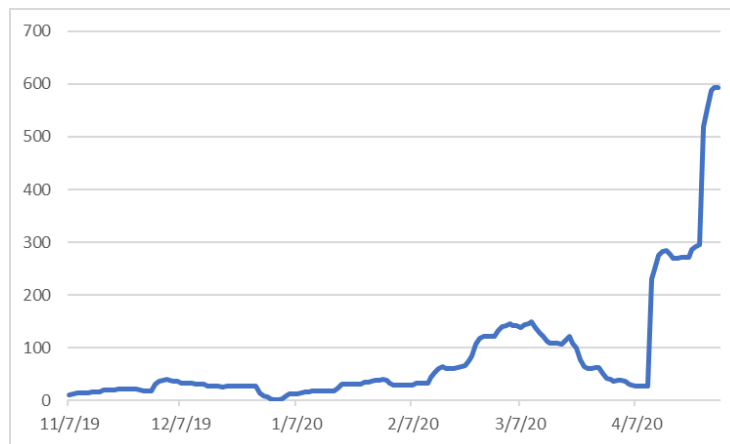


Figure 5. More than 30 second views

Patel (2017) describe the 30-second display metric inside Facebook's Insights dashboard as a system of measurement to assist a platform administrator to quantify the success of their Facebook videos. Complete video views and repetitive views are consequently measurements of the success of the activity.

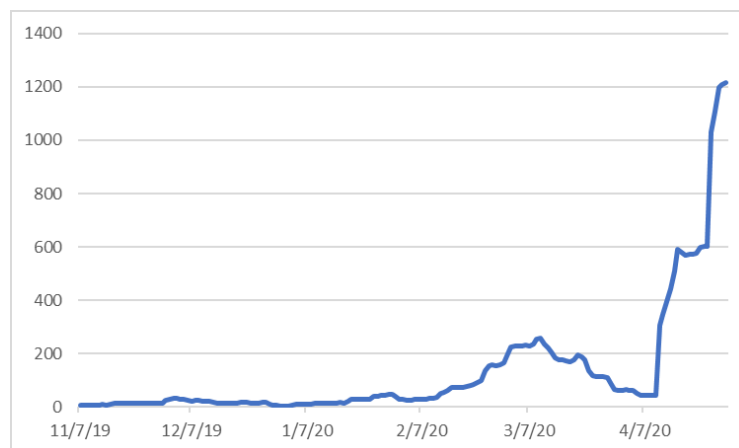


Figure 6. Total repetitive views

The repeated views suggest that the topics in the series are community-relevant and worth more than one view. It follows from figures 5 and 6 that the virtual labs constitute a rapid growth of the number of video views. This emphasises the salience of content on Facebook, and that there are different effects accompanying different kinds of content. Furthermore, visual content may be more effective than text, and the richness of video as compared to text needs to be probed. This allows us to postulate that higher density content would be more conducive to both identity creation and learning, and also to governing activities on the page than content with less richness of meaning. It also points to the emergence of more complex media than text in creating not only communities of practice, but also in stimulating and transforming the food system.

Posts received and discussed

Figure 7 refer to the number of members/non-members on the iZindaba Zokudla Facebook page who saw the posts, measured by how many days they viewed the content during the period in question.

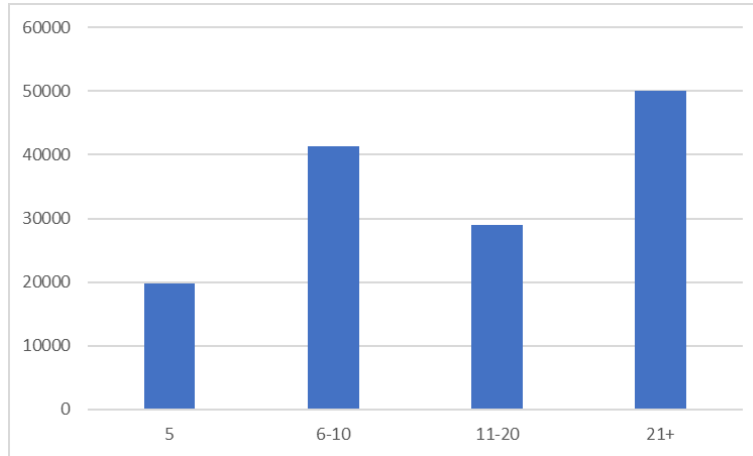


Figure 7. Number of received posts

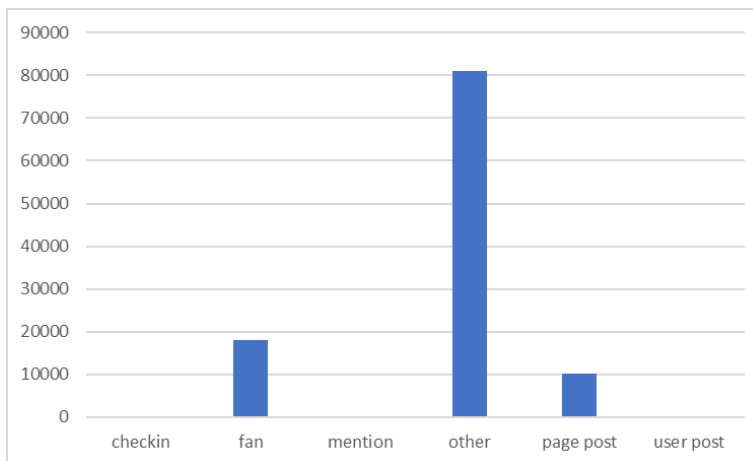


Figure 8. Posts discussed

Both figures 7 and 8 show an exponential rise in reading and response to the Zokudla iZindaba posts. Posts represent video plays, link clicks, photo view or texts generated by iZindaba Zokudla. This is consistent with our finding that the richness of content stimulates richer organising and group formation, learning and networking.

Post types

A post can be classified as, but not limited to, videos, text and photos that subsequently appear on the iZindaba Zokudla Facebook page. Figure 9 indicate the number of clicks on posts, measured over a 180-day period, classified by type as shared by the iZindaba Zokudla Facebook page such as videos, text and photos.

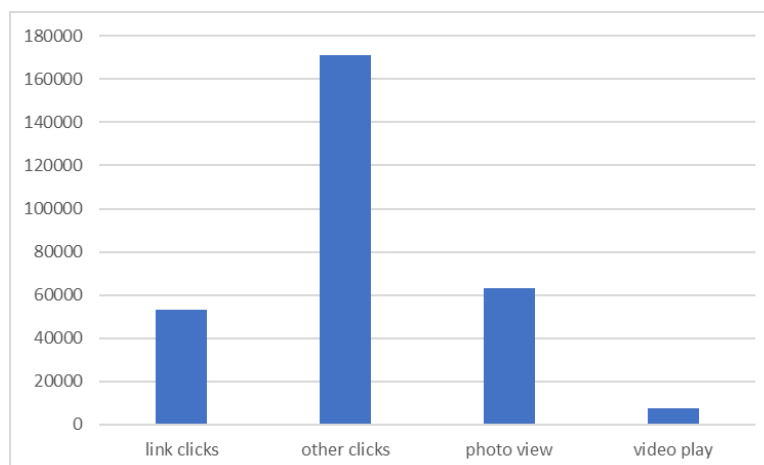


Figure 9. Posts types

However, it should be noted that if a member/non-member failed to respond through a Like, Comment or Share that the post was not successful in reaching the target audience. *Other clicks* refer to, for example to clicks on names of people on the post. The relevance of this action is the fact that members/non-members clicked somewhere on the page that indicates engagement, and not repetition, therefore we can conclude they were navigating the content of the page. This indicates participants are highly interactive on the page, and are not merely reproducing postings, and that active engagement indicates learning is taking place. This points to the possibility of higher order learning, group identity formation and networking occurring subsequent to engagement on Facebook.

Networking: Connecting all the dots

The network effects of participation in iZindaba Zokudla's Facebook page can only be qualitatively surmised in this paper. We however have seen that administrators can shape and condition engagement on the page, whilst participants actively can use the opportunities on the page to build their own networks. Administrators can also boost posts, and the data indicates that the "tea party" boostings reached up to 72306 people. Administrators thus can exert significant influence over pages, and this emphasises their governance role. However, the foregoing allows us to make some findings on network formation subsequent to engagement on the Facebook page. We have seen that these networks adopt English as a *nom-de-plume*, which is novel as most participants are not native English speakers. Participants can also engage with postings in a differential way, indicating some kind of authentic learning and not merely repetition of postings. We also see participants reacting to administrators and this is all suggestive that the activities on the Facebook page are novel and may hold some transformative effects. Networking is thus evident on the page, and it is possible that these networks extend globally and are open to engagement with a highly diverse audience.

4. CONCLUSION

The internet, and Facebook as a phenomenon on the internet, has clearly changed our social reality. Using Facebook as an organising tool for economic transformation and development makes sense. Facebook can stimulate the creation of communities of practice by enabling groups to build their own identities on the internet, and this can be connected to deeper trends in society and new identities in

the space of the food system. Facebook is open to create new urban agricultural identity, groups and activities. Such new network formation can draw on learning and the limited interaction possible on Facebook does allow learning to take place amongst participants.

Using Facebook also carries limitations, and we have seen that gender differences are reproduced on Facebook, suggesting that additional activities are necessary to address this issue, and that Facebook alone would not be able to engineer significant transformation in this regard. However, other aspects of organising on Facebook do point out to transformative potential, and we do witness the creation of new identities and networks and these may be transformative.

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CITIZENS' PARTICIPATION: A TOOL FOR SERVICE DELIVERY PLANNING IN SOUTH AFRICAN RURAL AREAS

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ABSTRACT

The purpose of this paper is to analyse and conceptualise the contributions of citizens' participation on issues pertaining to service delivery planning in rural areas of South Africa. Good governance and ethical leadership are predicated on the principles of accountability, transparency and robust relationship between a government and its citizens to create a harmonious environment. The paper further recognises that poor service delivery in rural vicinities emanates from inadequate citizens' consultations with the government. That means, citizens are change agents and champions of their own developmental direction. It becomes easy and feasible to address development challenges when the government has a strong relationship with its people. The paper submits that the potency of citizens' participation would subsequently lead to the effectiveness of good service delivery planning in South African rural areas. The paper has adopted a literature-based methodology to extensively and broadly analyse the valuable insights which are significant to service delivery planning. It theoretically analyses different stances from the literature to expand its argument that citizens' participation contributes positively to service delivery planning in South African rural areas. The paper also submits that the bottom-up approach provides an opportunity for the people to give inputs on service delivery planning and avoid biasness of service delivery from the government. The literature reveals that poor citizens' participation causes a fiasco in service delivery planning in rural areas of South Africa. The paper concludes that the promotion and practice of effective citizens' participation contributes to a proper planning of service delivery in South African rural areas and ultimately leads to good governance and accountability from the officialdom. The paper recommends that, the Constitution of the Republic of South Africa together with the legislative policies such as the White Paper on the Transformation of Public Service of 1997, be practiced to enhance the standards of living of all the citizens.

Keywords: citizens' participation; development; service delivery planning; South Africa

1. INTRODUCTION

Undoubtedly, the principles of accountability, transparency and a robust relationship between a government and its citizens are the primary foundation of good governance, effectiveness and efficiency for both private and public sector (Weerakkody, Omar, El-Haddadeh & Al-busaidy, 2016;

Das, Laishram & Jawed, 2019). In that, many governments across the world are developmental states with the zeal and zest to build robust relationships with their citizens (Weerakkody *et al.*, 2016). Hence, it becomes easy and feasible to address development challenges when the government is at the centre of development and has a strong relationship with the citizens that is characterised by working hand-in-hand with them. Citizens' participation is believed to be the protagonist in spearheading good service delivery planning (Weerakkody *et al.*, 2016). On the same line, citizens' participation is associated with elements of involvement, public empowerment, sense of ownership, sustainability, collaboration, and self-reliance (Das *et al.*, 2019). All these elements are essential if service delivery planning is to be put in motion and practice.

Good service delivery planning could help in curtailing the squandering of financial and physical resources and subsequently enhance a good image of the government (Shareef, Dwivedi & Kuma, 2016). Citizens' participation and service delivery planning have strong ties that could be used to ameliorate other significant issues such as inequalities, unemployment and poverty (Zhang, 2019). However, in the process of service delivery planning, the public, business sector, labour unions, civic organisations and communities must exert prodigious and concerted efforts and a "will" to accelerate the processes of service delivery in the townships and communities (Das *et al.*, 2019).

In South Africa, the government has made a commitment of ensuring "a better life" for every citizen. The Constitution of the Republic of South Africa Act 108 of 1996, together with the legislative policies such as the White paper on the transformation of Public Service of 1997 and the Reconstruction and Development Programme (RDP) of 1994, are founded upon the commitment to improve the standards of living of all the citizens, which includes empowering them to be self-reliant and practice sustainability (Shareef, Dwivedi & Kuma, 2016). The policy calls for a need for the national government to give citizens the opportunity to participate in decision making, which subsequently affects their standards of living (Shareef *et al.*, 2016). Hence, it is a fundamental clarion call to build a sense of trustworthiness between the government and its citizens (Weerakkody *et al.*, 2016). Therefore, the processes of public participation help to reinforce organisations of demonstrative fairness by democratising those organisations. It has been argued that the citizens are actively involved in the decision-making processes of the matters affecting them. However, not all the services provided by the government to its citizens are the requested ones. At times, such services are provided without citizens' knowledge and perhaps that is because of poor coordination of the citizens and government officials. This is exacerbated by lack of service priority and consultation. Henceforth, the article uses the public and citizens' participation synonymously to avoid ambiguities of reference.

2. LITERATURE REVIEW

2.1. The Potency of Citizen's Participation in Service Delivery Planning

Oftentimes, the concept of "planning" rarely receives the attention it deserves. Sometimes, services just mushroom from nowhere, from the political affiliates with the thirst to quench their needs and interests without planning elements taken into consideration. In that, the adage "the end justifies the means" becomes more relevant in a democratic epoch where services are rendered or delivered

without thorough examinations of the planning processes and procedures followed. Questions about the efficacy of citizens' participation have been asked and as it stands, have not yet been adequately responded to in literature and in practice. Hence, this paper seeks to divulge, foreground and endorse citizens' participation as a necessary endeavour that contributes to service delivery planning. The ensuing paragraphs provide a critique of the potency of citizens' participation in service delivery planning, and a review of two approaches (blueprint and bottom-up) to the issue under discussion.

Over the past decades of democracy and post-apartheid South Africa, there has been a vicious debate on whether the country still uses a blueprint or a bottom-up approach as its method towards service delivery planning. Consequently, the paper uses the blueprint and bottom-up approaches to critique, elucidate and analyse the potency of citizens' participation as a mechanism to service delivery planning. Notably, the principles of both approaches bottom-up and blueprint are antagonistic to each other. Succinctly, bottom-up approach connotes and annotates on putting the people at the heart of service delivery planning and participation; that, the people have a leeway to make valuable insights and inputs in the process of service delivery planning. Meanwhile, Rosinski, Klich, Filipkowska and Pettinger (2014:27) describe the bottom-up approach as a "participative approach". Notwithstanding the principles of the bottom-up approach, blueprint is a direct foe of the bottom-up approach. In that, blueprint is a plan and vanguards a view that the decision is taken from the top to the lowest structures, hence, it does not permit for citizens' participation. Rosinski *et al.* (2014:27) view blueprint as directive or an expert approach. Implicit in the foregoing notion is that the blueprint approach is a tool used by the nobilities to impose their inputs and expertise to the ordinary citizens in the process of participation. Indeed, such an approach is not democratic in nature and cannot be used in a unitary state.

For the purpose of this paper, it is vivid and conspicuous that bottom-up approach is a pertinent approach and a tool, which could enhance the potency of citizens' participation. That is because, the approach is at the core and provides a latitude to create a space for people to partake in the decision-making processes in as far a service delivery planning is concerned. The bottom-up approach becomes a tool for the emancipation and spearheads the socio-economic issues of the communities and a country at large. Ploštajner and Mendeš (2005:97) postulate that effective citizens' participation gives the participants an advantage to gain the necessary experience, and to develop a culture of democratic and political participation. It is palatable to note that the potency of citizens' participation through the bottom-up approach strengthens and uplifts the spirit of democratic processes in service delivery planning.

2.2. Is Citizens' Participation: A Rhetoric or a Reality?

As a point of departure, Holdar, Zakharcheko, Natkaniec, Dihtyar and Piontkiska (2002:15) describe citizen participation as "a community-based process in which the citizens collaborate and determine their goals at the local level and work with Non-Governmental Organizations (NGOs) and government to shape the decision-making processes". That means citizens' participation becomes a tool to strengthen democracy in South Africa because it presents an opportunity for individuals to express their concerns (Carreira, Machado & Vasconcelos, 2016:1). Holdar *et al.* (2002:15) suggest that citizens' participation intensifies transparency in the decision-making process.

Governments across the world continue to face difficulties in the effective implementation of their policies, particularly in developing countries (Holdar *et al.*, 2002). Policies may sound good and well established; however, if the citizens do not fathom and are not well acquainted with them, it subsequently leads to the mass failure of policy implementation in the communities. Hence, the authenticity of citizens' participation remains in question, which results in most communities marred with service delivery backlogs. That is because of the absence or lack of engagement with the communities in the planning processes. Ploštajner and Mendeš (2005) contend that transitional countries experience issues of fragmentation, poor mechanisms of public participation and a lack of educated professionals. However, given the context of South Africa in a democratic epoch, citizens' participation is not fostered enough although it appears vocalised in theory. For that reason, the protests remain inevitable in such a country because of poor citizens' participation in service delivery planning.

Hearings and symposiums are held in big cities where most poor people cannot have access to them and are economically non-productive (International Peacebuilding Advisory Team, 2015). However, one would assert that citizens' participation is relative given certain circumstance in public spaces. Arguably, citizens' participation becomes a reality in which people participate on different levels of decision-making processes. Equally, the processes include, amongst others, civic meetings, public hearings, *imbizos*, local forums, to name a few, which enables the citizens' a platform to engage with relevant stakeholders in service delivery planning in South Africa. To corroborate the latter dictum, the Istrian country in Croatia has pragmatically adopted strategies to enforce citizens' participation (Ploštajner & Mendeš, 2005). In that, the strategies embroil, amongst others, civil initiatives, referendums, petitions, and informative activities through media platforms (Ploštajner & Mendeš, 2005:98). Be that as it may, through various participative channels, it assists the government, businesses, communities and the labour unions are setting out the priorities, debating and shaping the public policy processes, execution of public policy as per agreement and monitoring and evaluation processes (IPAT, 2015).

2.3. The Benefits of Citizens' Participation in a Democratic Epoch

Clearly, the outcomes of citizens' participation often yield positive results of the processes. Undisputedly, citizens' participation becomes the available local tool for ordinary citizens of the country to express their hardships, conundrums, and concerns with a belief that such predicaments would be salvaged (Holdar, *et al.*, 2002; IPAT, 2015). Accordingly, citizens' participation provides a latitude for ordinary citizens to engage with the stakeholders concerned. Conspicuously, at the end of participation processes, one expects to see the implementation and the outcomes. One of the benefits of citizens' participation is enhanced development. Enhanced development comprises different elements that relate to better health facilities, better education, better sanitation, clean and safe water, and better roads networks *inter alia* (IPAT, 2015). Through citizens' participation, people are able to learn certain skills, acquire knowledge, have a sense of ownership, empowerment, build and strengthen relationships in the neighbourhoods and foster social cohesion amongst themselves, which is good for community building. Penultimately, citizens' participation strengthens and enforces

accountability to government officials and improves transparency in the process of service delivery planning (IPAT, 2015). To that end, citizens' participation cannot be disregarded if service delivery planning is to be implemented without flaws in the process. Lastly, service delivery planning assists the government and the communities to identify the problems, plan, allocate resources and mitigate the possible risks that could impair the processes. Dola and Mijan (2006:3) have proffered that the quality of public participation serves three fundamental purposes, namely, stability and consensus; conflict reduction and broaden consciousness; and containment and bargaining. Equally, citizens' participation encourages intellectual stimulation and curtails the command-and-control mode of the government (Counsell, 1999; Dola & Mijan, 2006). Citizens' participation also brings about sustainable development, rejuvenation and renewal of the policymaking processes (Dola & Mijan, 2006).

2.4. Typologies of Public Participation

Citizens' participation and public participation are used synonymously in this paper. Public participation is an essential tool for the promotion of democratic and responsible power exercise (Gobat, Butler, Mollison, Francis, Gal, Harris, Webb, Byrne, Watkins, Sukumar, Hood & Nichol, 2019). It assists in terms of fostering the national unity through its recognition of diversity. Public participation provides the power of self-governances for the citizens and improves their participation process on matters affecting them (Zhang, 2019). It also enables the citizens to become aware of the opportunities around them and make use of them without hesitation (Gobat *et al.*, 2019). Public participation could be done in different ways. Therefore, the purpose of this section is to discuss the typologies of public participation.

- *Participation by consultation*

Participation by consultation has to do with the involvement of citizens to express their thoughts on issues that are disturbing their standards of living (Zhang, 2019). The consultation could be done through public hearings hosted in communities, surveys as well as through neighbourhood meetings (Gobat *et al.*, 2019). Countries such as China practice this type of public participation. However, the public does not have full control over the decision-making process. Participation by consultation is believed to be vital for the promotion of collaboration between the government and its citizens in the Republic of Congo (Gobat *et al.*, 2019). In addition, it is also believed to have the ability to build robust relationships and connections. The United Nations Economic Commission for Europe has also put emphasised that participation by consultation should be considered as a fundamental activity in which the public voice out their concerns and opinions based on their needs and or other factors affecting them (Gobat *et al.*, 2019). Participation through consultation seems to be well received, embraced, supported, and put into motion by many countries, such as Britain. Hence, the British local government adopted strategies such as, "The White Paper on Modern Local government: in touch with the people's states" (Lowndes *et al.*, 2001). Similarly, the British government wishes to see consultation and participation being included in all spheres of the councils (Lowndes *et al.*, 2001).

The South African government uses the Constitution as a guideline to the process of public participation (Gobat *et al.*, 2019). It also uses consultation to serve as a distribution channel of data

as well as of collecting information from the citizens. The Constitution of the Republic of South Africa 108 of 1996 is a supreme law and a cornerstone of democracy, which provides equal rights to all South African citizens. According to Chapter 2 of the Constitution of the Republic of South Africa of 1996, all citizens in the country have socio-economic rights which must be protected and respected. The socio-economic rights mainly include the right of access to services such as water, health care, education, social security, food, and housing. The participation policy framework implies that municipalities should seek inputs from the communities on matters pertaining to the needs and services of the community and ensure that they are catered for (Meier *et al.*, 2013). Local communities have the right to be consulted and they should contribute to decision-making in every initiative planned on their environment (Gobat *et al.*, 2019). The citizens are advised to offer response(s), contribution(s), or remark(s) during the community meetings.

- *Participation by information giving*

Participation by information giving is considered as an activity where the citizens of a country respond to questions asked and give information only (Merino, 2018; Hasan, Nahiduzzaman & Aldosary, 2019). However, they do not have the power to influence the decision-making process, even if they do, they have a little power to do so because the decision powers rest with the political office bearers. Equally, Hoffman, (2019) states that in Uganda, it is believed that giving information and creating awareness is the most essential way of participation. The public could provide the raw information, which represents the precise reality of their standards of living (Merino, 2018). However, it still does not guarantee responding to all the needs, requests and opinions that have been provided during the community forums. The people might assume that their provision of the required information could be the answer to their demands (Meier *et al.*, 2013). However, the opposite could still happen. Participation by information giving has too many loopholes (Merino, 2018). This type of public participation gives the citizens a form of a balanced and impartial data to help them in understanding the glitches, substitutes and/or resolutions. Normally, the culture of South African government is to divulge “green papers” to the public and make a call for inputs and ideas from all different types of stakeholders concerned for the inclusiveness and better policymaking processes.

- *Manipulative participation*

Manipulative participation is the lowermost form of participation. Officials influence the citizens to do things such as voting for a certain political party (Gobat *et al.*, 2019). Public officials allow the citizens to voice out their views or opinions with an aim of manipulating them to change their way of thinking. During elections in South Africa, various political parties and a public official who strives to influence the citizens to vote for them, make promises they sometimes do not even fulfil (Meier, Lagemann, Morlock & Rathmann, 2013). They have supremacy over the decision-making processes and do not always care about prioritising the citizens’ matters (Meier *et al.*, 2013). Sometimes, citizens are bombarded with inaccurate information because certain individuals want to benefit unlawfully. Therefore, one could submit that, this type of participation is mostly influenced and perpetuated by political affiliates to satisfy their egoistic interests and behaviours by exploiting and misleading the ordinary citizens.

- *Passive participation*

Passive participation puts emphasis on the need for public officials to inform the people about the decisions that would have been made without necessarily hearing their inputs and concerns first (Meier *et al.*, 2013). Stakeholders' act as blank repositories where data is received and response is not for everyone (Gobat *et al.*, 2019). This type of participation is mostly used by non-democratic countries such as Morocco and United Kingdom (UK) where the final decision rests with the officials (Meier *et al.*, 2013).

2.5. Citizens' Participation and Service Delivery Planning: A South African Perspective

The emphasis on citizens' participation in the current juncture influences and shapes a discourse on service delivery planning which has equally provoked the development of a broad range of forums, symposiums, meetings, and hearings, to name but a few (Barnes, Newman, Knops & Sullivan, 2003). Such forums and meetings take place between citizens and public officials. As a point of departure, the paper recognises that citizens' participation and public participation are used synonymously. Hence, the paper adopts the two concept and uses them concurrently and synonymously so that there is no misconceptions and confusions. However, there is no government official or any other expert that would claim to know what the people are (Sebola, 2017). Therefore, public participation is of paramount importance in a democratic country because it affords people the latitude to voice out their needs and concerns. Notwithstanding, citizens' desire to have ownership of the policies that are formulated and adopted by the government cannot be taken lightly (Sebola, 2017).

Citizens' participation empowers and promotes people's engagement in matters affecting them (Mauger, 2019). This enables the government to know the services that are needed by the citizens. Service delivery is regarded as a significant factor in improving the quality of life and ensuring that people have better access to socio-economic services. Citizens' participation induces different ways of knowing matters (Mauger, 2019). Matters that were not known, kept, or hidden get to be in the public domain and become known by all the stakeholders or relevant people they were meant for (Mauger, 2019). As a result, the process of service delivery planning becomes easy to conduct. Through citizens' participation, the resources are not put to waste because of the priorities made by the public (Merino, 2018; Hasan *et al.*, 2019). It has been argued that the government of South Africa verdict for the public to the extent that public interests and needs are accommodated in public policies (Sebola, 2017). The citizens are, at some point, not given the opportunity to participate, decisions are made without necessarily taking into account their various views and inputs (Merino, 2018; Hasan *et al.*, 2019). However, the Constitution of the Republic of South Africa mandates that the local government must encourage the participation of communities and community organisations in matters of development that affect their lives. It also gives a precedence to the accessibility of basic needs by communities by promoting social and economic development. Quite frankly, the Constitution of the Republic of South Africa Section 151 to 154 clearly emphasises the need to enforce public participation through the local government.

Literature and academics have argued that the rights of the public to participate in decision-making regarding their development affairs have been violated (Zhang, 2019; Hoffman, 2019). This has also

affected the service delivery planning across all the spheres of government. Irrespective of numerous incongruities, the Constitution of the Republic of South Africa is still regarded as important in ensuring effective service delivery planning by the local government, focusing on responding to the needs of the citizens. The Municipal Systems Act 32 of 2000 states that the local government should ensure that local people must be included in planning for service delivery. Nevertheless, the entirety of government of the country is still faced with some difficulties in ensuring effective public participation. Ineffective public participation is a disadvantage to the citizens (Meier *et al.*, 2013).

In some instances, citizens are not consulted with regard to the class, level, variety and effect of the public services provided to them (Meier *et al.*, 2013). Thus, citizens are not given the chance to contribute to service delivery planning, including being excluded from decision-making processes that affecting their standards of living (Maphunye & Mafunisa, 2008). Citizens' participation becomes a tool for the local citizens to feel wanted, appreciated, and heard about their concerns or developmental needs (Maphunye & Mafunisa, 2008). Most of the time, South African local municipalities are antagonised by the conundrums that relate to the delivery of services planning. In most cases, this is caused by improper planning (Meier *et al.*, 2013). Every planning requires the direct or indirect involvement of the stakeholders. When improper planning has taken place, funds go to waste and subsequently, there will be poor service delivery in the end (Maphunye & Mafunisa, 2008). Inadequate or lack of funds has a direct effect on the process of achieving developmental goals (Meier *et al.*, 2013).

Section 8 of the public participation framework provides all the citizens of South Africa with an opportunity to take part in discussions based on their developmental needs. This could assist the government during the process of planning for the delivery of services to the people (Meier *et al.*, 2013). For instance, some communities are faced with shortages of water, electricity, and health care services (Marutha, 2011). Therefore, allowing people to voice out their needs will be an advantage and it will assist the government in terms of service delivery to ensure that, what the community members have requested is duly delivered. Citizens' participation ensures that all the participants have the relevant information for participating in a meaningful way (Marutha, 2011). The public participation framework comprises the promise that the citizens' input will have an influence on the decisions. It encourages maintainable decisions by identifying and communicating the needs and welfares of all contestants as well as the decision-makers (Marutha, 2011). Consultation, as one of the Batho Pele Principles, emphasises the need to ensure that citizens are given the opportunity to voice out their needs (Das *et al.*, 2019). Public participation frameworks aim and guide the participation of those possibly affected by or interested in a decision-making process (Dola & Mijan, 2006). It seeks contribution from participants in planning on how they should participate. Lastly, it talks to the participants on how their contribution influences the decision-making process. This creates a sense of empowerment among the citizens and builds their confidence towards effectively participating in the service delivery planning processes (Das *et al.*, 2019).

Through the contribution of regular citizens in choices, vagueness could be vacant in terms of the needs and necessities of the citizens and the co-operation therefrom could guarantee the accomplishment of effectiveness in the delivery of amenities (Addae, 2021). Making choices by

consulting citizens to participate would indicate that the individuals would reinforce even the detested decisions made, as they would consider themselves accountable for them (Duraminy & Gal, 2020). As an alternative, citizens' participation guarantees direct interaction between the people (particularly the citizens) and the decision-makers (Addae, 2021). Citizens' participation has the potential to evoke different opinions from the two parties, for instance, the experts and the regular individuals, thus guaranteeing long-term commitments to hearing all citizens, irrespective of their ideological and political stances (Matshabane, Campbell, Faure, Appelbaum, Marshall, Stein & Vries, 2021). In a local municipality, an Integrated Development Plan (IDP), where an outline introduced by the local municipality and the inhabitants is recognised to bring services within the anticipated period of time (Hoffman, 2019), endorses agreement edifice. When a decision is taken through the consultation and the participation of individuals, the application could be much simpler. Therefore, it is improbable for the community to throw away rules and/or legislations to which they have meaningfully contributed. For example, during the apartheid era, the downgraded societies nauseated in opposition to the government's rules on the foundation that their comforts had not been given picture such as the student uprisings of 1976, where the majority of the people (Matshabane et al., 2021), aggressively disallowed the policy of Bantu Education.

3. METHODOLOGY

3.1. Research instrument

This paper used a literature-based methodology to critique and analyse citizens' participation on service delivery in South African rural areas. The methodology enabled the researchers to search literature and discuss in detail the issues pertaining to citizens' participation and service delivery. The methodology provided international scenarios and a South African context in relation to the subject under scrutiny. Moreover, the paper conceptualised the concept of citizens' participation through the adoption of literature as a validation of the paper and strengthened its argument based on literature-based methodology.

4. RESULTS AND DISCUSSION

From an extensive perusal of literature, one could observe that citizens' participation is a tool to spearhead and strengthen the capability of the government to render or deliver services in rural areas. Unequivocally, the democratic breakthrough in South Africa portrayed a picture of hope and a dawn for citizens to partake actively in the affairs of community development. This meant that participation would serve as the backbone of service delivery in rural areas. From the depth analysis of the literature, there is no doubt that meaningful citizens' participation empowers, strengthens community members and largely, strengthens democracy. Theoretically, the paper finds that during the process of participation in South Africa, public officials and politicians have a tendency to influence the citizens to vote for them, make promises they sometimes do not even fulfil. The political office bearers who want to satisfy their ego and narcissistic behaviour at times feed citizens with inaccurate information. Given the various forms/types of participation and legislations, there is still a great need for the enforcement and encouragement of participation so that services and resources are not wasted. According to literature, governments across the world, such as the government of South Africa,

continue to encounter difficulties in the effective implementation of their policies. This is a concerning issue that affects the development of citizens of the country. Moreover, poor participation also contributes to the failure of the implementation of policies. Therefore, the participation of citizens during the formulation and implementation of policies should be enforced and or encouraged. The authors found that there are still meetings held secretly without even alerting the citizens by the political office bearers with malicious intent and ignoring the voice and inputs of the citizens.

5. CONCLUSION

Citizens' participation is clearly a tool that can be used to hold the government accountable, to deliberate and engage on the service delivery planning processes. Equally, different strategies and policies that enforce and encourage people to take charge and define their own development direction should be enforced. Moreover, citizens' participation works well in countries that are democratic and in a unitary state as opposed to the monarchy ruling systems. That is to imply that citizens' participation is also a tool to strengthen democracy through different forums of engagements. This paper discussed the potency of citizens' participation in service delivery planning; the rhetoric and reality of citizens' participation; benefits of citizens' participation in a democratic epoch; typologies of public participation and citizens' participation and service delivery planning from a South African perspective. The paper through a conceptual analysis concludes that citizens' participation is a tool for service delivery planning that influences policy and developmental direction.

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ANTECEDENTS OF SUPPLY CHAIN AGILITY IN A DEVELOPING ECONOMY

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ABSTRACT

Information technology (IT) is critical since it is the factor that enables the smooth operation, review and redesign of supply chain agility. Supply chain agility is better understood and can be monitored through five measurement metrics, namely, cost, time, quality, flexibility and innovativeness. In SMEs, those involved in monitoring supply chain agility typically focus on those metrics that result in increased competitiveness since greater competitiveness results in a decrease in costs. The main objective of the study was to investigate the influence of information technology, supplier development and product development on supply chain agility. This makes the subject of supply chain agility central to the operation of the modern-day SMEs. Descriptive statistics were analysed using the Statistical Packages for Social Sciences (SPSS version 25.0) software. A Confirmatory Factor Analysis (CFA) was conducted to determine the psychometric properties of the measurement scales. Hypotheses were tested using Structural Equation Modelling (SEM), which demonstrates and tests any theoretical linkages of a proposed study and the significance of the relationship between the constructs. Both the CFA and SEM techniques were achieved using AMOS 25.0 software. The result of the study showed a positive relationship among the research variables. However, recommendations and limitations for future research are provided.

Key words: supply chain network design, supply chain integration, supply chain information competency, supply chain agility, South Africa

1. INTRODUCTION AND PROBLEM STATEMENT

In this period of industrialisation, there is an increased rate of research and innovation, which has raised the need to give more consideration to information technology if firms are to be more competitive (Imran, Hamid, Aziz & Hameed 2019). Within the manufacturing sector, there is evidence that, due to rapid technological advances, most manufacturing firms cannot keep abreast

with supply chain information competencies. Consequently, supply chain agility is affected, which, in turn, leads to poor firm performance within the manufacturing sector. However, little is known about the underlying structural characteristics of a firm's supply chain network design, information competency and integration and whether these capabilities have any influence on a firm's supply chain agility (Dubey, Altay, Gunasekaran, Blome, Papadopoulos, & Childe, 2018). Several supply chain researchers have emphasised the value of incorporating the supply chain network when considering agility and performance implications (Sharma, Sahay, & Sarma 2017; Bernardes 2010). This research study assesses the adoption of supply chain capabilities (supply chain network design, supply chain information competency, and supply chain integration) usage by firms in the manufacturing sector and their perceived impact on the firms' supply chain agility. There is extensive literature covering supply chain agility, and firm performance; however, limited attention has been devoted to the adoption of supply chain capabilities' usage and the corresponding perceived impact on supply chain agility, specifically within firms in the manufacturing sector of a developing economy.

Therefore, this research study will contribute significantly to the already established supply chain management literature. Moreover, manufacturing firms in this sector will also gain valuable information on how to improve their performance and competitiveness, nationally and globally.

2. LITERATURE REVIEW

Dynamic Capability Theory

Over the past decades, research in strategic management has devoted ample attention to the concept of dynamic capabilities (DC) (Helfat & Winter 2011). The emergence of the DC framework can be traced back to a call for a dynamic theory of strategy (Williamson 2010). Dynamic capabilities are often described as the firms' ability to change, given changes in the environment (Winter 2013). Moreover, Teece, Pisano and Sheun (1997) defined DC as "the ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments". This definition is widely cited, and it has encouraged others to refine the notion of DC. Consequently, some researchers have proposed a direct link between DC and firm performance, arguing that DCs are difficult-to-imitate combinations of resources and should, therefore, be conceived as a source of sustainable competitive advantage (Drnevich & Kriauciunas 2011; Yang & Zhu 2019).

Most of the extant research on firm capabilities report the positive impact of DCs on performance (Gudergan, Devinney, Richter & Ellis 2012). The empirical evidence confirms that DCs play an important role in firms' long-term survival and success (Lin & Wu, 2014). Blyler and Coff (2003) and Zhan and Wang (2020) proposed that network design among individual firms facilitate the development of new capabilities by promoting a constant flow of information from various external and internal sources. These capabilities, in turn, affect performance. Hsu and Wang (2012) proposed a model to explain how performance is influenced by intellectual capital (including relational capital) through DCs (Lew, Sinkovics & Kuivalainen 2013).

The DC theory applies to this study because it helps partners to co-ordinate actions in pursuit of market opportunities or in response to threats. It also reflects the ability of a pair of partners to integrate and reconfigure resources to cope with rapidly changing environments.

Supply chain network design and supply chain agility (H1)

Bellamy, Ghosh and Hora (2014) defined supply chain network design as an inter-linked network of firms consisting of manufacturers, suppliers, customers, third party service providers, and alliance partners that interact to execute the supply chain activities of the firm. The various firms in the supply network are generally referred to as supply network partners of a given focal firm in the network. On the other hand, Gunasekaran (1999) defines supply chain agility as the ability to survive and prosper in a competitive environment of continuous and unpredictable change by reacting quickly and effectively to changing markets, driven by customer-defined products and services. The concept of agility as a business strategy was presented by Dove (2005) as the firm's ability to thrive in a continuously changing and unpredictable business environment. Researchers have indicated that supply chain networks can enable firms in the manufacturing sector to be more competitive and increase performance to customers (Bayraktar, Demirbag, Koh, Tatoglu & Zaim 2009; Chin, Hamid, Rasli & Baharun 2012).

The results emanating from supply chain network design directly influence a firm's level of agility, for example, it reduces time to market and improves customer satisfaction (Hakansson & Ford 2002). The risks and challenges of doing business, such as customers' changing demands, (Martelo, Barroso & Cepeda 2013), meeting customers' specific requirements (Lai, Xie, Tan & Yang 2008), varieties of new products and on-time delivery of products and services through information technology may also become less challenging through supply chain agility (Chin *et al.* 2012; Cao, Gan & Thompson 2013).

An agile supply chain concerns change, uncertainty and unpredictability within the firm's environment and makes appropriate responses to changes. In a dynamic environment, a firm requires the mechanism to help it go beyond the boundaries to search for additional resources and capabilities and the supply chain network design structure provides an appropriate means to obtain external resources and capabilities to sustain and enhance its competitive capability, including supply chain agility (Saeed, Malhotra & Grover 2011). Overby, Bharadwaj and Sambamurthy (2006) indicate that external resources, information and knowledge are critical for increasing supply chain agility.

By maintaining a superior network design structure, a firm could exploit its elements, and network closure to access and acquire reliable, non-redundant, and valuable information content, integrated with internal resources, capabilities and information, thereby creating inimitable and non-substitutable agility in response to unpredictable environmental changes (Venkatesh 2013). Given the various strategic values and benefits of a supply chain network design structure, this study assumes that an agile firm has the desire and makes the effort to expand its brokering ties on diverse and novel resources and capabilities inherent in disconnected contacts and manages a superior supply chain network design closure with multiple connecting ties to obtain reliable,

non-redundant resources and capabilities early. Therefore, it can be claimed that enhanced supply chain network design by firms in the manufacturing sector can have a positive effect on supply chain agility.

Supply chain information competency and supply chain agility (H2)

Firms need internal information about their financial situation, the effectiveness of their products, their production costs, and they need external information about the environment in which they operate, and so gain sustainable competitive advantages (Lin, Chiu & Chu 2006). Information competency can be defined as the extent to which a firm is knowledgeable about and effectively utilises or manages information within and outside the firm's environment (Tippins & Sohp 2003).

Supply chain information competency plays an essential role in enabling the sensing and response capabilities of a firm (Fink & Neumann 2007; Overby *et al.* 2006). As such, supply chain information competency provides fundamental support to supply chain agility (Sharma, Sahay & Sarma 2017). In addition, De Groot (2011) investigated that firms could create and maintain a competitive advantage by increasing and leveraging information to sense and respond to market changes in order to improve supply chain agility. However, there are a few studies about the effectiveness of supply chain information competency on supply chain agility (Goldman, Nagel & Preiss 1995). Tafti, Mithas and Krishnan (2013) argue that the supply chain structure and the nature of interrelationships among firms in the supply chain may also influence the impact of supply chain information competency on the agility of the supply chain.

Synchronising all the essential information competency activities to achieve supply chain agility is crucial. Top management should actively engage in a strategic supply chain information competency plan for supply chain agility and measure its effect on supply chain performance. Previous research by Venkatraman (1990), Wong, Lai and Cheng (2012) and Sharma *et al.* (2017) are convinced that the firm's value of information competency is manifested in its contributions to supply chain agility. It enables a supply chain with a high degree of visibility, connectivity, responsiveness and flexibility. Among different information competencies, IT integration and flexibility are deemed to provide the most obvious contributions to supply chain agility.

As such, it can be claimed that enhanced supply chain information competency of firms in the manufacturing sector has a positive effect on supply chain agility.

Supply chain integration and supply chain agility (H3)

Supply chain integration is an achieved capability that results from a set of interconnected systems and processes that facilitate decision-making processes (Schoenherr & Swink 2012). Supply chain integration can be described as the degree to which a firm collaboratively deploys its resources and capacities with channel partners (Zhao, Huo, Selen & Yeung 2011), mainly involving the integration of data and information systems. Supply chain integration contains three elements, namely, information flow integration, physical flow integration and financial flow integration (Rai, Patnayakuni & Seth 2006).

Information sharing creates opportunities for increased supply chain agility (Katayama & Bennett 1999; Morgan, Richey & Ellinger 2018). As a result of supply chain integration, collaboration occurs between functional areas within the supply chain, thereby leading to goal alignment and improved performance (Schoenherr & Swink 2012).

Firms often seek supply chain agility to cope with the uncertainty of their business environments. A Delphi study, conducted by Lummus, Vokurka and Duclos (2005), shows that managers strongly associate accurate and timely visibility of customer demand and inventory information with greater supply chain agility. Participants in the study stated that such integration is necessary in order for firms to design appropriate reactions to change.

As noted by Reichhart and Holweg (2007), the need for agility emanates from uncertainty. As a firm obtains higher quality information about demand and supply conditions from customers, suppliers and various other sources, it can anticipate changes and thus be more responsive.

Scholars agree that supply chain integration, both in terms of internal and external integration, can have a positive impact on supply chain agility (Kannan & Tan 2010; Sharma *et al.* 2017). Inter-functional co-operation and working together play an important role in the achievement of these results. As such, it can be claimed that an enhanced supply chain integration by firms in the manufacturing sector can have a positive effect on supply chain agility.

3. CONCEPTUALISED FRAMEWORK

Drawing from the literature review, a research model was conceptualised. In the conceptualised research model, supply chain capabilities (supply chain network design, supply chain information competency, and supply chain integration) were the predictors. Supply chain agility was the outcome variable. Figure 1, illustrates this conceptual model.

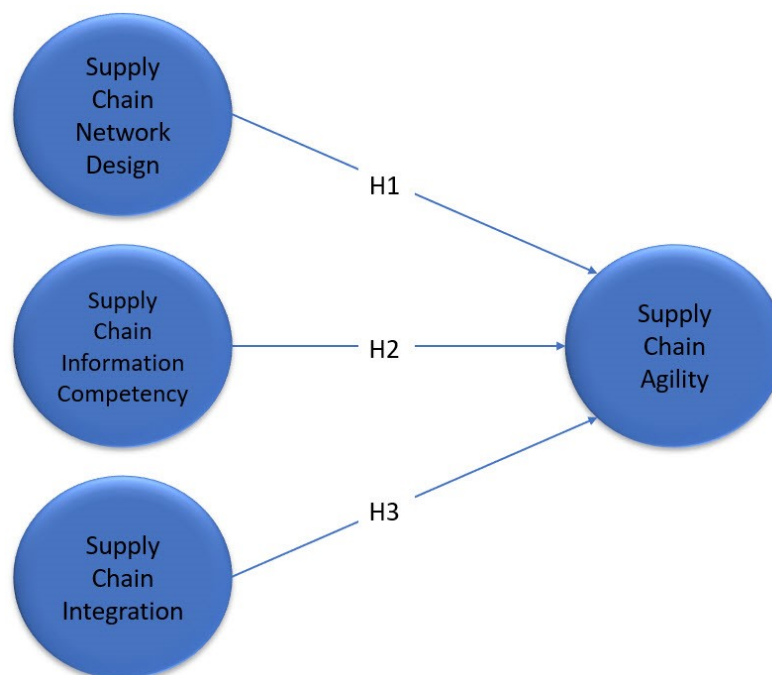


Figure 1. The Research Model: Own Source

Based on the conceptualised research model, the following hypotheses were formulated.

H1: There is a positive influence between supply chain network design and supply chain agility.

H2: There is a positive influence between supply chain information competency and supply chain agility.

H3: Supply chain integration has a positive impact on supply chain agility.

4. RESEARCH METHODOLOGY

A quantitative research approach was adopted in this study. The manufacturing firms' managers and owners were the target population of this study and those firms which are members of the National Association of Automobile Manufacturers of South Africa, Chemical and Allied Industries' Association, Independent Communications Authority of South Africa, South African Iron and Steel Institute, and Textile Federation of South Africa. As the research currently stands, the number of the population is 2500 firms in the manufacturing sector. Target population is closely linked with the sampling frame. For the purpose, of this study, only 600 manufacturing firms' managers and owners who are members of the associations formed part of the sampling frame.

Table 1: Accuracy Analysis Statistics: Reliability Test.

| Research Constructs | | Descriptive Statistics | | Cronbach's Test | | C.R | AVE | Factor Loading |
|-------------------------------------|-----|------------------------|-------|-----------------|----------------|------|------|----------------|
| | | Mean | SD | Item-to-total | α Value | | | |
| Supply Chain Network Design | SD1 | | | 0.708 | | | | 0.763 |
| | SD2 | | | 0.795 | | | | 0.909 |
| | SD3 | 3.800 | 0.894 | 0.790 | 0.901 | 0.92 | 0.70 | 0.905 |
| | SD4 | | | 0.797 | | | | 0.857 |
| | SD5 | | | 0.630 | | | | 0.709 |
| Supply Chain Information Competency | SC1 | | | 0.724 | | | | 0.841 |
| | SC2 | | | 0.783 | | | | 0.875 |
| | SC3 | 4.074 | 0.821 | 0.797 | 0.874 | 0.88 | 0.59 | 0.830 |
| | SC4 | | | 0.661 | | | | 0.689 |
| | SC5 | | | 0.543 | | | | 0.571 |
| Supply Chain Integration | SI1 | | | 0.632 | | | | 0.696 |
| | SI2 | | | 0.793 | | | | 0.865 |
| | SI3 | 3.958 | 0.871 | 0.748 | 0.890 | 0.89 | 0.63 | 0.842 |
| | SI4 | | | 0.682 | | | | 0.765 |
| | SI5 | | | 0.677 | | | | 0.787 |
| Supply Chain Agility | SA1 | | | 0.764 | | | | 0.826 |
| | SA2 | | | 0.815 | | | | 0.848 |
| | SA3 | 4.049 | 0.845 | 0.789 | 0.936 | 0.92 | 0.72 | 0.882 |
| | SA4 | | | 0.760 | | | | 0.859 |
| | SA5 | | | 0.723 | | | | 0.836 |

Note: SD = Supply chain network design, SC = Supply chain information competency, SI = Supply chain integration, SA = Supply chain agility; SD = Standard Deviation, CR = Composite Reliability, AVE = Average Variance Extracted *Score: 1 – Strongly Disagree, 2 – Disagree, 3 – Moderately Agree, 4 – Agree, 5 – Strongly Agree

As shown in table 1, the Item-to-Total values ranged from 0.630 to 0.797 for supply chain network design; 0.543 to 0.789 for supply chain information competency; 0.632 to 0.793 for supply chain

integration; 0.723 to 0.815 for supply chain agility; and 0.655 to 0.829 for firm performance. All the measurement items for the five latent variables had Item-to-Total values greater than the acceptable threshold value of 0.05 or above (often ≤ 0.3) (Dunn, Seaker & Waller 1994). Moreover, Table 1 reveals that the Cronbach's alpha coefficients were between 0.874 and 0.936 for all five research latent variables. Therefore, all the Cronbach's alpha values for all the research variables used in this research study were above the acceptable threshold value of 0.7 used in the study by Nunnally and Bernstein (1994). All in all, the measurement items used in this research study were highly reliable since all the Item-to-Total values were above the recommended value of 3 and all the Cronbach's alpha coefficient were closer to 1. The research study used composite reliability checks as shown in Table 1, to complement the Item-to-Total correlations and the Cronbach's coefficient alpha value.

Table 2: Correlation Matrix

| Research Variable | SD | SC | SI | SA | FP |
|-------------------|--------------|--------------|--------------|--------------|----|
| SD | 1.000 | | | | |
| SC | .530** | 1.000 | | | |
| SI | .500** | .416** | 1.000 | | |
| SA | .449** | .307** | .492** | 1.000 | |

Note: SD = Supply chain network design, SC = Supply chain information competency, SI = Supply chain integration, SA = Supply chain agility.

As indicated in Table 2, a significant positive correlation exists between the different constructs. The correlation between SC and SD has a value of ($r=0.530$; $p<0.01$). Furthermore, the correlation matrix describes a positive relationship between SI and SD with a value of ($r=0.500$; $p<0.01$), as well as SI and SC with a value of ($r=0.416$; $p<0.01$). Moreover, a constructive significant correlation exists between SA and SD ($r=0.449$; $p<0.01$), SA and SC ($r=0.307$; $p<0.01$), SA and SI ($r=0.492$; $p<0.01$). The correlation between all the constructs is less than the standard threshold of 1.0, as recommended by Chinomona (2011:110). Therefore, these results confirm the existence of discriminant validity.

Table 3: CFA Model Fit Indices Results

| Model Fit Criteria | Values |
|---|--------------|
| Chi-square (χ^2 /DF) The degree of freedom (DF) | 3.01 |
| Normed Fit Index (NFI) | 0.942 |
| The Tucker-Lewis index (TLI) | 0.953 |
| The incremental fit index (IFI) | 0.965 |
| The comparative-fit-index (CFI) | 0.961 |
| The root mean square error of approximation (RMSEA) | 0.066 |

Table 3 indicates that the measurement model yielded a ratio of chi-square value to degree of freedom of 3.42. The recommended threshold range is between 1 and 3. Although the current research study has a value of above 3, the difference of 0.42 is still tolerable. According to Reisinger and Mavondo (2008), chi-square to degree-of-freedom value below 5 still provides a good model fit. As such, the chi-square to degree-of-freedom value of 3.42 in this research study is marginally accepted and reflects a good model fit. Table 4 also shows NFI, TLI, IFI, and CFI values (0.942, 0.953, 0.965 and

0,961 respectively) that are all above the recommended threshold of 0.9 or above. This further reflects a good model fit.

Given that all six goodness of fit indices provided in Table 3, are meeting their respective recommended threshold, it can be concluded that the data is fitting the model. The next section provides a discussion of the structural model, starting with the SEM model fit to the hypotheses testing.

Table 4: SEM Model Fit Indices Results

| Model fit criteria | Values |
|---|---------------|
| The Chi-square (χ^2/DF) The degree of freedom (DF) | 2.789 |
| The Normed Fit Index (NFI) | 0.931 |
| The Tucker-Lewis index (TLI) | 0.942 |
| The Incremental Fit Index (IFI) | 0.956 |
| The Comparative-Fit-Index (CFI) | 0.955 |
| The Root Mean Square Error of Approximation (RMSEA) | 0.060 |

As depicted in table 4, the structural model yielded a ratio of chi-square value to degree-of-freedom of 2.789 which is within the recommended threshold of 3, as suggested by Schumacher (2006:68). This result reflects a good model fit. Table 4 further shows NFI, TLI, IFI, and CFI value (0.931, 0,942, 0,956, and 955 respectively) that are above the recommended threshold of 0.9. These results further confirm that the estimated model fits the sample data in this research study well, and provides a good model fit. Table 4 also reports a RMSEA value of 0.060, and is within the threshold of 0.050 and 0.080, which provides a very good model fit. The next section provides a discussion of the structural model (hypotheses testing).

Table 5: Hypotheses Testing Stage and Results (Path modeling)

| Proposed hypotheses relationship | Hypotheses | Path coefficient estimates | P-value | Decision |
|--|-------------------|-----------------------------------|----------------|-----------------|
| Supply chain network design → Supply chain agility | H1 | 0.330 | *** | Accepted |
| Supply information competency → supply chain agility | H2 | 0.496 | *** | Accepted |
| Supply chain integration → supply chain agility | H3 | 0.802 | *** | Accepted |

5. DISCUSSION OF RESULTS

H1, there is a positive relationship between supply chain network design and supply chain agility, claiming that supply chain network design, processing and electronic commerce are rapidly expanding the capability to achieve powerful interactive links among agile manufacturing firms. Tafti, Mithas and Krishnan (2013) pointed out that the benefits of supply chain network design to supply chain agility include: increased accuracy, increased

responsiveness and better understanding of the role each partner plays in the design of the supply chain network. Nel and Badenhorst-Weiss (2011) suggested that the primary purpose of an effective supply chain network design and supply chain agility is to supply predictable and unpredictable market demand and, at the same time, achieve the lowest possible supply chain cost. In addition, inventory levels should be minimised throughout the whole supply chain network. Lead times should be shortened to the point which minimises costs. On the other hand, focus is required on responding to rapid and fast changes in the market. Furthermore, Provan, Fish and Sydom (2007) suggested that firms' effort to increase their level of supply chain network and knowledge sharing in tandem should further enhance their ability to positively influence supply chain agility outcome.

H2, there is a positive relationship between supply chain information competency and supply chain agility. However, it should be noted that while information competency is crucial, its impact on the agility of a supply chain depends on what information is given, how it is given, and with whom. Similarly, a study by Hsu, Chiu, Chen and Li (2009) shows that supply chain information competencies' quality has a positive impact on supply chain agility, and that information quality should be multi-dimensional in terms of accuracy, timeliness, adequacy and credibility of information exchanged. Moreover, Tafti, Mithas and Krishnan (2013) argue that the supply chain structure and the nature of inter-relationships among firms in the supply chain may also influence the impact of information competency on the agility of the supply chain. DeGroote and Marx (2013) studied the impact of supply chain information competency on abilities of sense and response in an agile supply chain and found a significant and positive relationship between the two constructs.

H3 proposes that there is a positive relationship between supply chain integration and supply chain agility. Firms with greater supply chain integration are able to sense and respond to market changes with speed and dexterity. High supply chain integration affords unfettered access to information across firms' boundaries and allows firms to capture insights from partners that are seamlessly connected (Wang & Wei 2007). In order to gain agility, it is important for supply chain partners to integrate their units in a way that they become responsive to each other's needs and start behaving as a unified whole (Barki & Pinsonneault 2005). Previous studies by Barratt (2004); Sabath and Fontanella (2002), suggested that supply chain integration provides greater benefits to the supply chain when environmental uncertainties exist, and an agile supply chain is present. Hence, Braunscheidel and Suresh (2009) concluded that supply chain agility cannot be developed without integrating key supply chain partners and are of the view that supply chain integration is positively associated to supply chain agility.

Therefore, an agile supply chain requires integrative working between buyers and suppliers, joint product development, common systems and shared information (Rigby, Day, Forrester & Burnett 2000).

6. THEORETICAL AND PRACTICAL CONTRIBUTION OF THE STUDY

It is evident that manufacturing firms and their suppliers should commit their effort toward supply chain capabilities, providing quality products and creating long-term relationships in order to improve or increase supply chain agility. Manufacturing firms and their suppliers should recognise that when

the relationship between them is good, new modifications will appear and service will improve its quality, which will lead to supply chain enhancement. The results contribute to the understanding of manufacturing firm supply chain agility when developing and maintaining quality products, establishing and maintaining long-term supplier relationships. Thus, manufacturing firms are more likely to adapt successfully to constantly changing business environments.

The study likewise uncovers that the implication for policy makers are that competitive intensity to international markets should be improved. The primary reason for low competitive intensity can be credited to lack of market entrance by local firms. Barriers to entry include access to financial aids, inadequate incentives, technology and high transaction cost. All things considered, policy makers should assume a noteworthy role by adding to the achievement of the manufacturing sector by creating strategies that will enable owners and managers to prosper in this sector.

6. RECOMMENDATIONS TO GOVERNMENT AND MANAGERS

Introduce an incentive to motivate the expansion of the manufacturing sector by giving partial or full exclusion for a constrained period of increased benefit coming about because of expanded capital investment. Initiate an incentive for foreign direct investment in the manufacturing sector and the exchange of foreign innovation and skill by giving a full exemption of withholding tax on interest payment and technical fees payable to non-inhabitants.

The research shows that managers should be more strategic in their relationships. Manufacturing firm managers should perhaps consider that there are more opportunities for small firms to supply to small buyers and where these buyers are more inclined to increase supplier responsibility. This allows a more dynamic learning curve. The research has demonstrated that the number of years trading, just as the degree of experience of owners and managers in the manufacturing sector, has a significant part to play in its continued existence. Managers need to comprehend that representatives must be trained, their performance measured and treated equally. Managers need to understand that innovation has changed the manner in which business is directed, the manner in which items and services are manufactured and conveyed. The embracing and acknowledgment of new innovation in the manufacturing processes will give a key favourable position to manufacturing firms that want to contend in the international market.

7. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

A suggestion for further study would be to replicate this study by analysing the population using different test instruments and different research techniques, and then comparing results with this study. The study could also be conducted in another geographical location in South Africa. A further research study can be carried out in a similar context, but in other developing countries, in order to further validate the research model and findings.

With all the limitations mentioned above, the study has revealed the influence of supply chain capabilities on supply chain agility on manufacturing firms and in addition, this study empirically validates and confirms the research model. The research findings should be verified and refined in a new research context. This study also suggests to both manufacturing firms' managers and proprietors

and the government in South Africa, the importance of supply chain networking relationship for manufacturing firms' agility, performance and economic growth.

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(IN)EFFICIENCY OF HUMAN RESOURCE MANAGEMENT IN SUPPORTING CORRECTIONAL OFFICERS IN FORT BEAUFORT PRISON, SOUTH AFRICA, DURING COVID-19

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ABSTRACT

Globally, research indicates that there is little published literature, which addresses the protection of prison staff. In 2020, owing to poor planning and inefficiency of the Human Resource Managers at the Correctional Services, a disproportionate number of Correctional Officers experienced and reported burnout, work related stress and death due to COVID- 19. Guided by Maslach's burnout theory, and Lazarus and Folkman's Theory of coping and stress, this study investigates the effects of inefficiency of the human resource management in supporting the Correctional Officers from Fort Beaufort Correctional Service, South Africa, to cope during Covid-19 era. In a qualitative research approach, twelve, black, purposively sampled Correctional Officers (aged 30 to 55 years old), gave their informed consent to be interviewed face-to-face and audio-taped while keeping social distancing in one designated office. Tesch's method of data analysis assisted in identifying themes. To achieve trustworthiness, the researchers employed Lincoln and Guba's principles such as credibility, confirmability, dependability and transferability. Numerous risks and challenges of managing COVID-19 in prisons have been reported by correctional officers and include; working overtime, fatigue, anxiety, lack of resources, negative attitudes from the human resource managers and unclear job descriptions, which are responsible for creating tension at workplace. A strategic approach spanning public health and human rights of the correctional officers is essential as they are exposed to working environment susceptible to tuberculosis, Human Immunodeficiency virus and violence. The Human Resource Management should therefore, assign the Employee Wellness Practitioners in building the psychological well-being of the correctional officers through facilitation of debriefing and conflict management sessions.

Keywords: coping, correctional officers, covid-19, fatigue, prison, stress.

1. INTRODUCTION

With an ongoing spread of Covid-19 in 54 African countries (Nweza et al., 2021), research indicates that as from the 26th May 2020, this pandemic had already infected inmates and correctional officers in countries such as Morocco, Egypt, Sierra Leone, Cameroon, Guinea, Ghana, Algeria, Democratic Republic of Congo and South Africa (Prison Insider, 2020). According to the report released by Mr.

Ronald Lamola, the Minister of Department of Correctional Services (DCS), of the 6 448 confirmed Covid-19 positive cases, 4 116 were prison staff relative to 2 332 inmates (News 24, 2020). According to the Centre for Disease Control (2019), the Correctional Services Centres cannot be exempted from COVID 19 owing to overcrowding, inadequate healthcare and insufficient sanitation. Endorsing the assertion above, is Koko (2020) and Mahlangu (2020) whose research findings quantified 118 inmates tested Covid-19 positive from Kgosi Mampuru II Correctional Services in Pretoria, Gauteng Province, South Africa.

If Kras and Fitz (2020) caution that the correctional officers can also transmit the virus to the prisons because they live in communities where the infection rate of Covid-19 escalates rapidly, what is the role of the human resources management (HRM) in protecting them? The reason for this question it is because at St. Albans Correctional Centre in the Eastern Cape Province, South Africa, three correctional officers of the 800 living with their families on the premises of the prison, died of Covid-19 (Marupeng, 2020; Zuzile, 2020). At Voorberg prison in the Western Cape Province, correctional officers protested due to deplorable conditions and lack of support from HRM, which was supposed to disinfect the institution despite the number of positive cases being reported (Vuso, 2020). At Waterval Prison in KwaZulu-Natal Province, prison warders told Mail and Guardian's journalist (Harper, 2021) that they worked without gloves and masks. The correctional officers who asked to remain anonymous, further reported that the HR leaders were autocratic in their leadership and inefficient in conducting mass screening for them, which, contributed to their anxiety because the prisoners allegedly threatened to kill the officers should they be tested positive. Legally, this is contravention of the Occupational Health and Safety Act (OHSA) of 1993 as the DCS seems to fail its responsibility to provide safe environment for the correctional officers (Republic of South Africa, 1993). No wonder Police and Prison Civil Rights Union (POPCRU) challenges the DCS for poor administration and lacking basic pharmaceutical and medical supplies, which, in turn, may continue to compromise psychological well-being of its members (Prison Insider, 2021).

Previously, Neveu (2007) conducted a study to test burnout in relation to lack of skill utilization and co-worker support among French correctional officers using competing structural model. In another quantitative study in Ghana, Boateng and Hsieh (2019) investigated the correctional officers' perception of job-satisfaction and job commitment. Findings revealed that correctional officers who develop strong bonds and transparency with their supervisors reported job-satisfaction. In South Africa that is ranked number 12 worldwide in terms of prison population of more than 150 000 inmates (World Prison Brief, 2020), most research studies focused on psycho-educational programmes for offenders (Snyman, 2019), effects of drugs, HIV infection and violence among inmates (Barkhuizen, Fitz & Petrus, 2018; Keehn & Nevin, 2018). To date, there is dearth of South African research in the area of the role of human resource management in supporting the correctional officers during covid-19.

To minimize the risk of contracting Covid-19 in South Africa, the Department of Employment and Labour (2020) proposed that there should be arranged schedules for the correctional officers to work shifts since they work in environments characterized by overcrowding. Furthermore, their salaries should be increased by 30% as they are providing essential services during Covid-19. Instead the

HRM at the South African Correctional Centres continues to engage the correctional officers to work long hours instead of absorbing trained learners despite available vacancy slots (Parliamentary Monitoring Group, 2021). As a result, correctional officers reported to have experienced burnout and stress because they should also be on the lookout for smuggling of drugs, violence and rape amongst inmates especially at night (Sibisi & Olonfinbiyi, 2021). In combatting stress related illnesses, poor morale and productivity among correctional officers, Kirungi (2021) suggests that the significant role by Employee Assistance Practitioners (EAP) in providing short-term counselling and debriefing could enhance job satisfaction. Thus, this study attempts to answer the following questions: (i) Which factors might lead the correctional officers to contracting Covid-19 at Fort Beaufort Correctional Service? (ii) What are the effects of inefficiency of the human resource management in supporting the Correctional Officers from Fort Beaufort Correctional Service, South Africa? (iii) What are the coping strategies that the correctional officers employ to overcome burnout and work stress?

2. RESEARCH OBJECTIVES

The research objectives are outlined as follows;

- (i) To identify the factors linked to leading the correctional officers to contract Covid-19 at Fort Beaufort Correctional Service, South Africa.
- (ii) To determine effects of inefficiency of the human resource management in supporting the Correctional Officers from Fort Beaufort Correctional Service, South Africa.
- (iii) To investigate the coping strategies that the correctional officers employ in overcoming burnout?

3. LITERATURE REVIEW

In the first section of this literature review, the following terms are defined, namely; burnout, human resource management and work stress. Thereafter, the focus will be on the complexities in prisons.

Definition of terms

Burnout

Burnout is a term, which encompasses emotional exhaustion, dehumanization, loss of motivation (intrinsic and/or extrinsic) and lack of coping skills to produce positive results at workplace (Harizanova & Stoyanova, 2020) and it commonly experienced when workers share stressful or toxic relationships with others (Bezerra, de Assis & Constantino, 2016).

Human Resources Management

In the context of correctional services, human resources management could be defined in terms of vigorous health arrangements and safety for the prisoners, monitoring and evaluation of correctional officers' service delivery, financial management, appraisal system, recruitments and promotion of emotional wellness (Kahambing, 2021). According to Wang (2015), it is important for the HRM to specify the job-descriptions of the correctional officers to avoid role strain, which, in turn, may cause the officers to find it difficult in meeting their role obligations.

Work stress

Work stress refers to job-related psychological feelings of anxiety, frustrations, tension, worry and distress (Kheswa, 2019). Owing to the demanding nature of the work, previous studies found that correctional officers just like other professionals such as social workers are not exempted from work related stress because they are expected to provide counselling and debriefing to the inmates (Kheswa, 2019). Magungxu, Abuya and Moyo's (2014) qualitative research study attests that aggravating factors leading towards correctional officers' work related stress are due to prison-warder ratio and shifts patterns. In their investigation of repercussions on prison work environment and correctional security personnel at the East London Maximum Correctional Centre (ELMCC) in the same country, these authors further established absenteeism, low productivity and working overtime being responsible for burnout.

Complexities in prisons

There is a common agreement on the past research studies related to prisons, worldwide. Amongst, others, management styles and inefficiency from the HR personnel have been documented as responsible for depleting the correctional officers' enthusiasm. For instance, in a webinar hosted by *Mail & Guardian* and Dr. Reddy in conjunction with South African Depression and Anxiety Group (SADAG) featuring a specialist psychiatrist, Dr. Antoniete Miric, findings revealed that during covid-19, frontline workers such as correctional officers, nurses, medical doctors and police officers have undergone through changes in sleeping patterns due to working long hours. Moreover, they reported vulnerability, loss of appetite and loneliness (Reddy, 2020).

Management styles of the HRM

Effective managerial skills in any organization are presumed to be a driving force of excellence among workers. However, when the HR employs authoritarian approach as opposed to authoritative leadership, research indicates that the correctional officers may feel belittled when not involved in decision-making activities (Grod, 2020). Authoritarian HR leaders are characterized by dominance, less communication with subordinates and lack of emotional support and delegation whereas transformational managers whose ethos are rooted in sharing of ideas and leadership training, often provide mentorship and open dialogues for smooth operation of the prison systems (Lugo, 2016). Although vaccination of Correctional Services employees which began on the 15 July 2021 became mandatory, it raises a concern as to whether the HRM invited the EAPs or psychologists to prepare the correctional officers, mentally?

(In)efficiency of the HR personnel in prisons

Expertise of human resource management plays a vital role in prisons especially in terms of staffing and workforce development for the correctional officers to deliver excellent services (Ismail & Viggiani, 2018). However, Job- Demand Control Support Model pioneered by Karasek and Theorell (1990) on the other hand, states that when job demands are overwhelming and workers lack assertiveness over their job tasks, health problems are inevitable and may affect their mental health.

Since there were reports alleging Covid-19 related deaths by inmates and that the correctional officers would work without personal protective equipment (PPE) such as gloves and masks to prevent the spread of coronavirus at New Prison in Pietermaritzburg in KwaZulu –Natal

(Khoza, 2020), this could be a sign that the HR personnel officers compromise the well-being of its prison warders.

4. THEORETICAL FRAMEWORK

Christina Maslach described job burnout as a prolonged response to chronic interpersonal stressors at workplace (Maslach, & Leiter, 2006). The relevance of this theoretical framework is evident as in Spain, correctional officers who feel abandoned by their managers wished for psychological help for they felt hopeless (Rania, Migliorini & Coppola, 2020). Closely related to the theory of burnout is Lazarus Folkman's coping theory (1984), which states that psychological stress responses may be cognitive, behavioural and emotional, when individuals do not cope. Physical stress can manifest in the weakening of body tissues and cause high blood pressure, depression, heart failure, backaches, headaches, fatigue and contribute towards low sexual libido due to a weak immune system (Rania et al., 2020). Contrary to the bleak picture painted above, social support among correctional officers and supervisor support are perceived as capable to ameliorate psychological well-being (Lambert et al., 2016).

5. RESEARCH METHODOLOGY

In a qualitative research approach, twelve, black, purposively sampled Correctional Officers (aged 30 to 55 years old), gave their informed consent to be interviewed face-to-face and audio-taped while keeping social distancing in one designated office. They represented a population of correctional officers in Fort Beaufort Correctional Service Centre. According to Creswell (2013) population constitutes a group of individuals sharing the same characteristics such as a profession, race, religion or location from which data can be investigated. By social distancing, the chairs were kept 1.5 to 2 metres apart prior conducting the study. Although the face-to –face interview lasted more than 4 hours in total, the participants had covered their mouths and noses with facial masks and used the hand sanitizers provided to them by the researchers. It is important to note that ethical considerations were adhered to as the names of the participants were kept anonymous and confidential. This corresponds with the letter that the researchers sent to the director of the centre when applying to be granted a permission to conduct a study.

Thus, researchers preferred the pseudonyms, CO1, CO2, CO3..... up to CO12. Moreover, to flatten the curve of COVID-19, all the participants had to complete a special attendance register (designed by researchers) that which reflected their contact numbers only for tracing suspects who might display the symptoms of the virus shortly after data collection. After Tesch's method of data analysis assisted the researchers in identifying the categories and themes, the researchers destroyed the audio-tapes. There was a need to debrief the participants for the following reasons, namely;(i) they were still grieving the loss of their male nurse who died of COVID-19, (ii) some correctional officers lived in fear since their family members have been infected with the virus and lastly (iii) the relationship between the

employees and HRM was characterized by conflicts. To achieve trustworthiness, the researchers employed Lincoln and Guba's (1985) principles such as credibility, confirmability, dependability and transferability. Guided by the interview schedule prepared prior the study, all participants responded to the same questions (i.e. credibility) until the achievement of saturation point. Hence, in cases where the researchers probed the participants by engaging them in prolonged discussion (i.e. dependability)

6. RESULTS

Biographical Information

In this study, six black males (aged 35 -55) and six black females (aged 36-40) correctional officers voluntarily participated. Two of the male correctional officers have less than 10 years working experience while four have more than 10 years working experience. On the other hand, four female correctional officers indicated to have served the DCS for almost 10 years as compared to only two with 15 years working experience, each.

Themes

Prior the identification of the themes and categories, the researchers relied on Tesch's method of data analysis which explain how to identify similarities from the audio-taped responses of the participants. The themes identified following Tesch's method as conducive to inefficiency of the HR in supporting the COs during COVID-19 are; working overtime, fatigue, anxiety, lack of resources, negative attitudes from the human resource managers and unclear job descriptions.

Four themes and categories with 6 sub-themes were identified;

Inefficiency of the HR

Working overtime

From the responses provided by the participants, it became clear that despite shortage of staff, correctional officers worked overtime. This is evident in the table as they indicated 48 hours per week. Specifically, participants CO1 and CO3 expressed the following, respectively; *“Even when it is not my shift, I would get a call from my supervisor telling me that the HR proposed my name to stand for another colleague who reported to be sick”” It is not for the first time being asked to work some few extra hours especially at night”*

Lack of resources

It emerged from three participants that the HR personnel at Fort Beaufort Correctional Service Centre that lacked efficiency as there were no medical staff working at night. To justify this, the extracts are as follows;

“Some of our inmates are above 60 years of age and are sick. For example, I did not know how to help an inmate diagnosed with Tuberculosis, who coughed protractedly since there were no nurses on Sunday night” [CO4]. Participant CO8 highlighted that there are days when she reports at the centres to work as a security officer although she is employed as the Admin Clerk. She could not attend get closer to the inmates without facial mask” When these inmates collapsed due to cold

temperatures, I could not help them because we were told to keep social distancing. Another thing is that there were not enough facial masks reserved”

Impaired psychological well-being

Regarding the question: How have you been coping since COVID-19 lockdown? Fatigue and stress emerged as sub –themes.

Fatigue

“We struggle. At night we should patrol and we do not get time to rest even when it is tea-time because we should do administrative duties such as reports or provide counselling to inmates who have been raped” [CO7].

“I am emotionally drained because even when trying to express my dissatisfaction to the HR about the scope of my job- descriptions, I am asked why I should not resign because I always complain” [C10]

Stress

It was typical in this sample that stress has affected their health, which led some of them complained of bodily pains and poor performance.

“I have completed three years now working as the correctional officer but my health has deteriorated. Here you would be shocked upon your arrival at 6am when you do head-count with the help of other colleagues that there are other inmates who have been hospitalized a night before due to being disobedient to take certain rules in order to qualify to belong a gang-28 or gang-26” [CO4].
“Working with the files of the inmates has caused me a lot of stress because there was a time they would go missing and I was scared to alert my supervisor because I could be charged with neglect. As to who took them from my table, I do not know. Although they reappeared, I overthink and suffer from headache” [C11]

Psychological support

It became clear that the lives of the correctional officers are at risk when asked to explain the type of interventions that the Department of Correctional Services have brought to minimize the spread of COVID-19 in prison.

“So far, the number of confirmed COVID-19 cases amongst the correctional officers is above 20 but we have not been debriefed and we do not know who might be next” [CO6]

“There is only one psychologist for the whole management area (District) and we have here are for more than 200 inmates and they do not come often. By district, I also refer to Middledrift Correctional Service and King-Williams Town Prison, amongst others because they are 9 in total” [CO9]

“Some of our colleagues have lost their family members to COVID-19 but they have not received even a telephonic message from the HR to show oneness. So do you think we can be supported even if we can be diagnosed with the virus?” [CO7]

Attitudes

From the discussions with the participants, the researchers distinguished the similarities in the responses to the question about how their working relationships with the HR got affected.

CO1 was quoted as ..., " *I am still on contract because I would bring a medical certificate when I noticed that my supervisor tried to call me when I was off-duty*"

CO5 echoed that even when they are genuinely sick, they would read emails from the HR that demoralize them. For example, " *Know that promotion to the higher rank is impossible if you are not performing well*"

" *One male-nurse died due to COVID-19 and that has made me to drink alcohol and negative attitudes towards our profession because they really don't care about us*" [CO12]

Management style of the HR

Conflicts

Some participants emphasized that it becomes painful to be led managers who do not trust employees as capable to bring harmony in the organization. " *Since COVID -19, we have colleagues who have been taking sick leaves but our supervisors do not complain about them*" [C10]. " *Our management has not created opportunities for some of our colleagues, whom we know that they could be of help to us based on the qualifications like Psychology or Pastoral Counselling that they have obtained*" [CO12]

7. DISCUSSION

This research has highlighted multiple factors that leads HR at the correctional service centres to malfunction. For example, participants in this study mentioned to have worked overtime regardless of the risks of COVID-19. In this circumstances, they were short-staffed with no medical doctors or nurses to help inmates with comorbidities (simultaneous existence of illness such as HIV/AIDS, TB and pneumonia). Valentine, Oehme and Martin (2012) found that subjecting the correctional officers to high workload and abnormal shifts could result in work related stress and burnout. Having witnessed one of their own (male nurse) succumbing to COVID-19, could imply that their anxiety might lead to depression as they mentioned that they would not even help inmates who had vasoconstriction due to cold temperatures that are often experienced in jails. Vasoconstriction refers to heart attack due to shock caused by cold temperatures and it is experienced when the human body temperature is below 35°C and characterized by involuntary inhalation (Möhlenkamp & Thiele, 2020). What was concerning is that the DCS did not devise means to recruit interns to increase the manpower as the outcry was evident in participants who would not get a chance to enjoy their lunch-time but to do a lot of paperwork. Another shocking finding is that there are participants who mentioned that some of their colleagues have had their family members tested COVID-19 positive and the HR insists on them to come to work. Undeniably, as confirmed by SADAG in the webinar (Reddy, 2020), there is a probability of experiencing posttraumatic stress disorder (PTSD) and in trying to cope with anxiety, some may drink excessively and have distorted thinking. Based on this

evidence, it is proper to say that the HR is inefficient because according to WHO (2021) when a family member has been tested COVID-19 positive, other members should be tested and quarantined for 14 days. But in this case, none of the correctional officers' health and overall well-being has been taken into account by the DCS.

Furthermore, psychological support during COVID-19 is pivotal for every employee who comes into contact with others because the virus is airborne. However, in this study, participants revealed that there is only one psychologist for nine centres in Amathole District, which makes it difficult for the correctional officers to be debriefed or counselled. Thus, they would resort to alcohol and other drugs and demonstrate mood swings. Such work stress leads to burnout and may contribute towards poor performance and put their lives at risks. No wonder, CO11 would lose important documents of the inmates while CO4 pointed out emotional emptiness due to trauma because of violence among inmates. Similar findings were documented in the United States, where statistics revealed that work-related stress is a major challenge and has affected between 19 % and 30 % of the correctional officers' psychological and physical health (Gurda, 2019). Willemse's (2020) study revealed that when the HRM provide EAP service to the correctional officers, they cooperate and buffer against the negative effects of their working environment. Finally, participants mentioned authoritarian leadership style being demonstrated by HR, who would threaten the correctional officers with emails even when they have valid reasons for their absence from work. This type of tension evoked negative attitudes among the correctional officers as there were not treated the same.

8. CONCLUSION

Correctional officers work under harsh circumstance in South African prisons due to multiple factors such as shortage of staff and inefficient HR personnel that fails to inject manpower necessary to curb the spread of COVID-19.

9. RECOMMENDATIONS

Although this study elicits new knowledge, however, a collaborative approach is necessary at the prisons in South Africa because there is lack of nurses, correctional officers, security officers, social workers and EAPs. To optimize job-satisfaction among the correctional officers, there should be incentives for working long hours, recruitment of psychologists and wellness practitioners (EAP) to provide psychological and emotional support as majority of the correctional officers is going to be affected by COVID-19 positive cases.

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EXPOSING SURVIVORS OF DOMESTIC VIOLENCE TO JOB OPPORTUNITIES THROUGH THE SKILLS DEVELOPMENT PROGRAMME (SDP) IN TSHWANE, GAUTENG PROVINCE, SOUTH AFRICA

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ABSTRACT

In South Africa, there are shelters whose purpose is to accommodate survivors of domestic violence and human trafficking. These shelters present a Skills Development Programme (SDP) with the intention of empowering the survivors so that they become financially self-reliant from their abusive spouses/ partners. The researchers observed that survivors of domestic violence continue to be dependent on state assistance after discharge from the shelters. This has prompted an enquiry into the effectiveness of the SDP. The study was evaluative in design and the Stage of Change Model became a lens through which the study was conducted. Managers of six shelters in Tshwane, Gauteng Province, as well as survivors of domestic violence were purposively selected to take part in the study. Semi-structured interviews were used to collect data from the managers of the shelters and survivors. Focus group discussions that consisted of survivors were also conducted to triangulate the findings. Data was analysed thematically. It was found that despite the exposure of survivors of domestic violence to the SDP in the shelters, they continued to be unemployed and financially dependent on their abusive partners and on government resources to make a living. Lack of an accredited SDP undermined the credibility of the programme and made it difficult for the survivors to compete in the market. Survivors of domestic violence need effective skills, which will enable them to participate actively and meaningfully in the South African economy. It is recommended that the SDP in the shelters must apply for accreditation with the relevant Sector Education and Training Authority (SETA) and be presented by qualified skills development facilitators. The six-month period for training in the SDP must be extended as it limits the learning content and process. This compromises the empowerment of survivors to be financially self-reliant.

Keywords: Domestic violence, shelters, skills development programme, survivors

1. INTRODUCTION

The Republic of South Africa received its democracy in 1994, but it is undeniable that the country still battles abject poverty, unemployment and discrimination. Women bear the brunt of this triple trauma. Manifestly, they are exposed to domestic violence due to their financial dependence on their abusive partners. In response to poverty and unemployment, state resources such as grants are also

used as a safety net. For women survivors of domestic violence who find themselves in shelters, both psycho-social support services and SDP are used in mitigation of the three ills. In the shelters, the SDP is rendered for a period of six months depending on the stay of the survivor. Within this period, it is expected that the survivor should be able to perform these learnt skills independently after discharge.

2. PROBLEM STATEMENT

The researchers observed that survivors of domestic violence continue to be dependent on state assistance after discharge from the shelters. This has prompted an enquiry into the effectiveness of the SDP. Concurrent with protection services rendered by the shelters, psycho-social support services and SDP are also provided. These support services are geared towards mitigating the impact of both social and psychological consequences of traumatic experiences. The intention of rendering an SDP is to provide survivors of domestic violence with means and methods on how to be financially self-reliant. Training is done on basic skills such as sewing, baking, computer literacy, beading, crocheting, knitting and others.

The expectation from the shelters is that the survivors should be able to perform the abovementioned activities on their own, post their discharge from the shelters. The researchers, however, noticed that what is happening is the opposite of the shelters' expectations, and survivors remain caught up in their financial dependency. In this regard, the effectiveness of the SDP is criticised and therefore necessitates an evaluation.

3. THEORETICAL FRAMEWORK

The Stage of Change Model became a lens through which the study was conducted. This Model has been informed by Theories of Reasoned Action (Guest & Namey, 2015). The Stages of Change Model assumes that human beings are sensible beings who make logical use of information available to them to engage in explicit behaviours (Bauer & Liou, 2016). The Model presupposes that for a learned skill to be effective, an individual should be intrinsically driven and motivated to change. The researchers' understanding of the Model is that change takes place incrementally through different stages. This means that people develop and progress at their own pace and are not forced to follow the stages as they are. The stages of change are as follows: pre-contemplation, contemplation, preparation/commitment, action, maintenance and relapse stages (Perrin, 2015; Bauer & Liou, 2016).

Pre-contemplation entails that when survivors are admitted in the shelters, they do not know anything about the SDP. The second stage is contemplation, which implies that survivors get to know about the existence of the programme and start looking at its advantages and disadvantages, including benefits. Adoption and implementation means that the individuals start looking at the SDP positively. When the stage is done on a continuous basis, it is called the maintenance stage (Mutti, 2020). If survivors are unable to function on the maintenance stage, this is referred to as relapse. This basically means that survivors cannot be on their own and go back to their poverty-related situations. The challenge of being unable to practise the learnt skill independently compels the survivors to go back to poverty-related situations. This means that the survivors will always be financially dependent. This promotes ongoing abusive experiences.

The stages of the Change Model related very well to this study because the effectiveness of the SDP is determined by the maintenance stage. Since the intention of the SDP is to empower survivors of domestic violence to be financially self-reliant, it is very important for the shelters to see them (survivors) functioning on the maintenance stage. Sandstrom and Huerta (2013) and Mutti (2020) confirm that the effectiveness of the programme is measured by stability and continuity.

4. LITERATURE REVIEW

In an attempt to address the abovementioned problem, shelters are providing both psycho-social support services and the SDP in the shelters. As already mentioned, survivors are accommodated for six months or less depending on their needs (Gierman, Liska & Reimer, 2013). The initial assessment guides how long will the survivor takes in the shelter. An individual development plan (IDP) is developed and followed based on the identified needs. The researchers are of the view that the IDP should consider comprehensive services and plans for survivors. In the meantime, whilst the survivors are receiving psycho-social support services, they are also provided with the SDP to address their financial dependency (Munyaradzi, 2014; Lopes, 2017). The shelters expect survivors of domestic violence to be able to perform the learnt skills and to practise them on their own. It is unfortunate that on top of these efforts, survivors continue to be financially dependent and go back to their financial dependence either on state resources or on their abusive partners, hence this inquiry. What is very disturbing is that when psycho-social support service is done, there is no time to complete the SDP.

One of the challenges that makes survivors to be more vulnerable to their abusers is the fact that affordable houses for abused women/ survivors of domestic violence after they are discharged from the shelters are scarce. This observation has been confirmed by Lopes (2017) and Bergstrom-Lynch (2018), who argue that there is poor access to second stage housing assistance for survivors to own or rent. Lopes (2017) emphasises that once the survivors exit the sheltering system, they often have no choice but to return to the perpetrators owing to a lack of independent housing and financial survival. Furthermore, Mlatsheni and Ranchod (2017) together with Bergstrom-Lynch (2018) reiterate that majority of survivors who are admitted in the shelters do not have matric. This perpetuates the cycle of violence and entrench dependency, hence the perpetrators continue to have power and control over their victims (Lopes, 2017).

5. PURPOSE

The purpose of this study was to evaluate the effectiveness of the SDP rendered in the shelters that accommodate survivors of domestic violence.

5.1 Objective

To determine if the SDP is empowering survivors of domestic violence to be self-reliant.

6. METHODOLOGY

6.1 Research design

This study adopted the qualitative research approach and an evaluative design. Evaluative research provides formative or summative information that describes and assesses the effectiveness of a

programme (Rossman & Rallis, 2020). Summative evaluation was more appropriate because despite the fact that it is frequently conducted by external evaluators, it is also performed at the end of the training to measure performance, impact or outcomes (Rossman & Rallis, 2020).

6.2 Sampling method

This study adopted purposive sampling due to the fact that both managers of the shelters and survivors of domestic violence were familiar with the subject for discussion. Gauteng Province generally has twenty-four shelters, which the Department of Social Development is funding for rendering psycho-social support services and the SDP. From these shelters, Pretoria, which is known as Tshwane Region, has only six. The researchers purposively sampled these six. Six managers were also sampled from these six shelters, but five participated voluntarily. The inclusion criteria for the managers was that their shelters should render both of the abovementioned services. Shelters that were not funded and not rendering both psycho-social support services and SDP were excluded. Twelve survivors of domestic violence were sampled from the six shelters, but five participated voluntarily on the individual interviews. Two survivors from each shelter were sampled, and five availed themselves. Shelters had a list of survivors, and the first two who were available and willing to participate voluntarily in the study were called for interviews. The inclusion criteria for the survivors of domestic violence were that they should have been in the shelters between 2014 and 2016, and have received both psycho-social support services and the SDP.

6.3 Data collection

Semi-structured interviews were used to collect data. Due to the fact that qualitative research provides flexible space for participants to be comfortable and speak at length, survivors of domestic violence were allowed to use their languages. The researchers ensured that all research ethics were followed accordingly, and the informed consent form was signed to ensure voluntary participation. The wellbeing of both managers and survivors of domestic violence was respected throughout the research process to ensure proper research etiquettes. Cellphones were also used to record the interviews with participants' permission. Note-taking was also part of the recording during the interviews. Two focus group discussions were also conducted. The discussions consisted of four members because the fifth member could not be located. A telephonic follow-up with individual survivors of domestic violence was made to confirm participants' responses. Similar to the focus group discussions, teleconferencing follow-up was also performed to corroborate the responses. The teleconferencing contact was chosen in order to comply with COVID-19 Protocols. Pseudonyms were used to protect the real names of participants.

6.4 Data analysis

This study followed thematic analysis. Through this process, themes emerged. Flynn and Mcdermott (2020) point out that data collection and analysis cannot be seen as separate processes. Therefore, the researchers conducted the two processes concurrently. The thematic analysis followed was as follows:

6.4.1 Collecting and recording data

Through collection and recording of data, the researchers were able to listen attentively to what participants presented to them. This process of collecting and recording data is well acknowledged by Elliott and Manager (2018b), who argue that data collection and analysis typically go hand in hand. This means that as the researchers were collecting data, they were at the same time developing some analytic interest. Data collection and recording allowed the researchers to develop some analytic interest (Flynn & Mcdermott, 2020). The recorded data was kept safe for future reference.

6.4.2 Management of data

The researchers had both audio-recorded and hand-written data. They also ensured that collected data was analysed and organised into computer files in order to give them meanings (Flynn & Mcdermott, 2020). The researchers examined, sorted and double examined the data in preparation for preservation, transcription and preliminary analysis. Notes that were written during interviews, and recorded using a tape recorder were safely stored for management purposes.

6.4.3 Reading and writing the memo

The researchers refined the transcripts through reading and re-reading in order to ensure that they made sense, and followed and owned the data gathered (Glaser, 2014). Raw data was reduced and organised into conceptual categories for the purpose of creating themes. The responses were then labelled for the purpose of identifying and linking participants and the meanings of their statements. The researchers confirmed this process through repeated reading and sense-making, and satisfied themselves that this activity has been well addressed and exhausted.

6.4.4 Describing, classifying and interpreting

The researchers made use of their creative skills to interpret and make sense of the raw data in order to identify themes. Similar information was grouped together and different themes were creatively identified. The researchers embraced (Flynn & Mcdermott, 2020) the fact that reading and writing of the memo, describing, classifying and interpretation of data cannot be done separately.

6.4.5 Representing and visualising

At the end of each and every research, the report is presented. That is exactly what the researchers did after obtaining the findings through themes.

7. RESULTS AND DISCUSSION

The researchers were of the view that effectiveness cannot be determined without evaluation. Therefore, the SDP was evaluated to determine its effectiveness. After engagements with shelter managers, survivors of domestic violence as well as focus group discussions, the findings revealed that exposing survivors of domestic violence through SDP is not helping them to job opportunities. The SDPs varied from shelter to shelter and were identified to be sewing, gardening, computer, art and craft, beading and baking.

7.1 Table A: Ineffectiveness of the SDP in the shelters

| Emerging themes | Sub-themes |
|---|--------------------------------|
| The ineffectiveness of the SDP in the shelters | SDP enjoyed by survivors a lot |

As the researchers were checking the qualifications of the trainers in the shelters, this is how the managers responded:

“You know what, currently we just request the person who is able to do sewing from the community to teach the survivors and that really does not help the women in the shelter. I am convinced that if this training was accredited, other women will be recruited by companies for job opportunities whilst still in the shelter because definitely we do have very intelligent women”. Simphiwe

“Honestly, the skills given from the shelter do not guarantee the survivor to get the job because they are not accredited. There is no certificate given to them from the shelter and we cannot find ourselves being sued for giving the certificates that are not working”. Simphiwe

“In our case, the house mother is the skills development facilitator and took the women through the programme. We also had visitors from overseas at some stage and volunteered to take women through especially beading and life skills programme. It was such an interesting session for the visitors and they felt fulfilled by transferring the skills”. C

“We do have a qualified trainer from Edgars Consolidated Group (EDCON Group) who is taking the women through. Three staff members were also taken to EDCON Group for training for three months. The shelter was also given an industrial and individual machine to use for training women by EDCON Group. The good thing is that women are given sewing machines to start their businesses during graduation with EDCON Group. Those women who went for training at EDCON Group are now training other women. They started as beneficiaries and are now transferring the skill to others. Skills development is part of healing as it takes women away from focusing on the problem but also look at their potentials. Yes, in terms of certificate, it is just shelter certificate of attendance but in actual fact there is no value in it. For employment it becomes difficult if there is no actual certificate”. Lerato

“The house mothers and volunteers are just doing the work out of their good will. Those women who were victims previously, volunteer and teach other women. They are not qualified”. Simphiwe

“In actual fact, SDP is a therapy for the women so that they can see that they are not stupid as labelled. At the same time, it is so difficult to get jobs. There is also an internet and newspapers to help them to look for jobs but it is not easy. The fact that there is no certificate and accreditation from at least one SETA, it is a very big challenge”. C

“Remember the SDP’s purpose is to provide therapy and healing as well as showing beauty in the work women are doing. Taking into consideration that there is no certificate received from the shelter, it is not easy to get the job”. C

Responses from managers confirmed that the SDP in the shelters is performed by unaccredited trainers. As a result, the skills are not exposing the survivors to job opportunities. Managers acknowledged that the skills are not accredited. They argued that the SDP is part of healing. This is confirmed by Lopes and Watson (2013), who holds that activities such as beading, painting, sewing and knitting are meant to be therapeutic. It was clear from the managers that the SDP helps survivors to restore and uplift their self-esteem. It takes women away from focusing on the problem, and instead identify their potentials (Bamidele 2017). The researchers have learnt that the SDP enhances psycho-social support services. This is confirmed by Gierman et al. (2013), Bamidele (2017) and Ojha (2019), who argue that the SDP is therapeutic. It was unfortunate that the SDP was found not to be empowering the survivors to be financially self-reliant.

The researchers also learnt that there was consensus from managers that there is no professional skills development trainer to impart the necessary skills to the survivors. Lack of a professional skills development facilitator provides everybody an opportunity to be a trainer in the shelters. These include house mothers, community members, volunteers, former survivors, shelter managers and visitors from overseas. Despite the external service provider who trained the survivors on sewing, there were some gaps that were identified. The service provider was piloting sewing skill, and therefore could not provide training to all the shelters. The researchers learnt that there was a discrepancy in terms of time it takes to attend sewing training at EDCON Group. This rendered the SDP ineffective. This is how the survivors responded:

“I did my training with EDCON Group for three months and we were firstly getting orientation to the sewing machine, cutting, designing and we continue with other things”.
Nthabiseng

“We were doing cooking, sewing, knitting, crocheting, cleaning and baking. I also attended sewing training at EDCON Group for a month”. Tania.

“There are also computer literacy which I was introduced to two weeks before I was discharged”. Thabitha

“Art and craft means things like painting. There were also beading to make ear rings, colouring and planting. The shelter manager was taking us through when she was available.” Shalleen

“It was just once a week and we only typed for a month and I was already about to be discharged”. Nthabiseng

The researchers learnt that there was no structured time for the training as in some shelters it was only done when the manager was present. Survivors attended sewing training at different times (one and three months). Their responses confirmed that the time in which they were taken through for the SDP was not only limited, but also not the same. The limited time that the training was provided is acknowledged by Ojha (2019), who argues that it is an obstacle in making one to own the learnt skill. Lahti (2012) and Amankwa et al. (2015) confirm that sewing training is complicated and needs more time. The researchers also learnt that the programme is not structured, and in most cases, depends on

the availability of the facilitator. The findings also highlighted that some survivors were exposed to the SDP two or three weeks prior to their discharge from the shelters. It was also discovered that there was an external service provider, the EDCON Group, which took the survivors through sewing lessons, but at different times. The time on its own was a discrepancy. It disadvantaged other survivors as they attended only for one month.

Below are some of the responses from the managers:

“On the other hand, it becomes problematic to allow the victims to stay for full six months or more because other people also needs to be protected. When the survivor is done with her psychosocial support services, and the social worker is of the view that the person is empowered, then she is released. Skills development is an ‘add on’ as I have already mentioned that it is part of healing and will be terminated at any time”. C

“The other challenge is the funding. If the funding of the shelter can improve, hopefully more good and quality work will be done. Skills development is not always an option as other people are here to sort their issues out and as soon as they are sorted they go. I am of the view that extra time can be allocated to the people who are willing to complete the course. My understanding of the skills development is that it is a therapeutic reflection of the self”.

C

The researchers learnt that one of the disadvantages was that if the social worker was of the view that the survivor is psycho-socially empowered and ready to go, obviously he or she will leave the shelter without completing the skills development sessions. This confirmed that only psycho-social support services are critical and given priority, and the SDP is just an ‘add on’. It has also been noted that resources such as funds to train beneficiaries to be independent are limited (Lopes, 2017). Despite the provision of the programme, it is evident that if the programmes are not accredited, then it is just a waste of time as the level of skills training provided does not conform to the identified skills shortage in the economy (Noman, Botchwey, Stein & Stiglitz, 2012). The researchers also noted that monitoring and evaluation is also poor. If the programme is expensive, there is no funding to make it effective. This means that when survivors leave the shelters, they are not equipped with the desired skills; instead, they go back to poverty- related situations.

The abovementioned information is confirmed by Mutti (2020), who argues that being discharged from the shelters does not emphasise the maintenance stage for survivors, who are leaving the shelters simply because psycho-social support services are done. Therefore, they have to go irrespective of the completion of the SDP. Over and above this training, survivors remain unemployed. This is contrary to Mokhethi and Oladele (2013) and Darling-Hammond et al. (2019)’s argument that skills development is the acquisition and mastery of knowledge and processes used to earn a living.

Mokhethi and Oladele (2013) emphasise that when individuals are adequately equipped with the necessary knowledge and skills to respond to systemic shifts, then it means that human capital is valued. This will empower individuals/ survivors to participate in creating a more equal, inclusive and sustainable world. Taking into account the fact that survivors are exposed to the SDP a few days

or weeks before their discharge, as well as lack of accredited certificates, it disadvantages them to be in a position to compete. Another response from one of the managers was as follows:

“The SDP is effective but they need to be improved. If they can be taken forward, the programme can be helpful. Accredited certification, funding and marketing is the problem”. Lerato

The abovementioned response acknowledges that the manager admits that the SDP is not effective because it cannot be effective and at the same time needs upgrading. There was also no evidence of the effectiveness of the programme. If managers had pleasure and talking openly with the SDP, then effectiveness would have been the proper concept to use. The fact that managers recognised that accredited certificates and funding is a problem, it confirms that it is ineffective.

7.2 SDP enjoyed by survivors a lot

The findings revealed that there was a common feeling by all survivors that the SDP was not empowering them to be financially self-reliant. Instead, they were of the view that the programme was mostly enjoyed by those survivors in the shelter. These were their responses:

“Baking and cooking were the most enjoyable activities for almost every woman in the shelter. We baked cakes and those cakes were used in the shelter to minimise the cost of buying bread on daily basis. I personally liked sewing and beading”. Thabitha

Three survivors of domestic violence highlighted that beading was interesting. One of them signalled the benefits of doing beading with specific reference to her short temper. Here were their responses:

“When I came here, I did not know anything about beading but I have learnt to love it. It changed my short temper”. Lerato B

“Sewing and beading are the most interesting skills for me. Very beautiful traditional clothing and suits were made for the weddings during sewing training with EDCON Group. I believe that sewing can bring something even if it can be little. Sewing provides life”. Nthabiseng

“I think it is sewing which women loves the most. My observation is that a lot of people like sewing. I think the fact that there is no certificate and the sewing material is not provided for the ladies to do their work outside the shelter, made them to be less committed.” Tania.

All survivors of domestic violence reinforced that the SDP was not necessarily benefitting them to be financially self-reliant, but was the most interesting and enjoyable. Both managers and survivors confirmed the unavailability of accredited certificates as a challenge for the programme to be effective. The researchers noticed that Simphiwe (the manager) was clear that they do not want to be sued by giving delegates accreditation certificates that are not working. The general feeling from both managers and survivors was that a number of different SDPs were stated to be the most interesting for survivors of domestic violence. Here followed responses from the managers in this regard:

“Adult colouring is one of the activities done by the survivors and the purpose is to get order in their brains. It helps them think logically and produce good stuff. Women also enjoyed beading. There is also computer literacy. Upon completion, the survivors receive attendance certificate. It is done for one month and half”. Mary

“Most of the women like doing sewing and baking. They bake their own cakes for the kitchen”.
C

“My observation is that craft is the most enjoyable skill because it allows creativity”. Mary

“Sewing and beading for me are the most loved skills for women”. Lerato

“I would think of sewing especially when it is done by EDCON Group. The ladies enjoyed it even though it becomes difficult for them to maintain this work”. Simphiwe

In conclusion of this sub-theme, the researchers learnt that survivors of domestic violence liked different skills, enjoyed and appreciated them, but did not necessarily benefit them. There was a common understanding from both managers and survivors in this regard that the programme is not making them to be self-reliant. One thing also learnt was that as much as those two different skills were not linked to the needs and interest of survivors, it was compulsory for survivors to attend the programme as long they were admitted in the shelters. The study proved that the programme was not tailor-made to the survivors or guided by their needs, but were made available for everybody coming to the shelters. The researchers postulate that counselling in the shelters should be guided by an individual development plan which considers survivors’ needs, finances, assets, problems, fears, cultural backgrounds and others to make the services holistic. It has been established that being interested in the skill does not confirm financial self-reliance. When linking these findings with the Stages of Change Model, the maintenance stage is not achieved because survivors cannot practise skills independently without any problem. This is a confirmation that the programme is not effective as survivors go back to poverty situations or financial dependency after the programme has reached its end, or they have been discharged from the shelters. This is called the relapse stage. The researchers’ point of departure is that empowerment in the shelters should be comprehensive and consider all aspects of life, including finances. Instead, it becomes a recipe for failure for the survivors if the financial aspect is treated as an ‘add on’.

8. CONCLUSION

The unavailability of accredited skills development facilitators and certificates makes it difficult for survivors of domestic violence to be exposed to job opportunities through the SDP. The fact that the programme is not funded challenges managers to give it a value, hence it is treated as ‘by the way’. At the same time, when the SDP is not funded, it limits comprehensive services for the empowerment of survivors of domestic violence, especially in being financially self-reliant. Inadequate funding disregards the good work (counselling) done by the shelters as survivors go back to their dependency status (relapse), and the empowerment process seems not to be working. Lack of second-stage housing, or affordable houses for the survivors doubles their dependency. The certificates received are just attendance and cannot make the survivors to compete and be employable. The researchers’

interpretation of survivors' behaviour of going back to financial dependency indicates that the SDP is not effective as they go back to their poverty situations (relapse) after they have been released.

9. RECOMMENDATION/S

It is therefore recommended that:

- more funding be allocated for the SDP in the shelters so that quality work can be done to make the learnt skill/s effective.
- the skills must be SETA-accredited.
- extra time be allocated to women who are willing to complete the course for SDP
- a six-month period limits the possibilities of empowering women, and therefore, has to be extended.
- the survivors need to leave the shelter with completed qualifications.
- shelters should link survivors of domestic violence with Community-Oriented Substance Use Programme (COSUP) so that they can attend on their own time in order to obtain a qualification.

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ANALYSIS OF THE RELATIONSHIP BETWEEN ACCOUNTANTS' TRAINING FRAMEWORK AND TECHNOLOGY COMPETENCE AMONG PROFESSIONAL ACCOUNTANTS

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ABSTRACT

As the world continues to emerge as a global village, calls for global professional competence parity have heightened hence there have been strategies and policies on international convergence of professional competence development. One of such is the campaign for adoption of the International Education Standards (IES) with a significant desirable outcome to reduce international differences in the requirements to perform as a professional accountant and to facilitate global mobility of professional accountants. In the light of these, this study compared the competence requirement of technology as stipulated by the IES and the technology competence of Nigerian professional accountants. In addition, the influencing relationship of accountants' training framework (ATF) on the technology competence of Nigerian professional accountants was assessed. A structured questionnaire using an online medium was administered to Nigerian professional accountants. A measurement index for technology competence was developed in line with the provisions of the IES. Data were analysed using both descriptive and inferential statistics including frequency, mean, standard deviation, one sample t test and correlation. The results of the study revealed that in general there is no significant difference between the technology competence required by the IES and the technology competence of Nigerian professional accountants. However, some significant difference was noticed in some key areas such as designing of information systems. Based on the perception of respondents, academic and professional qualifications influenced their technology competence with mean scores of the four items for academic qualifications (3.09, 2.47, 2.73 and 2.85) and three items

for professional qualifications (3.13, 2.77, and 2.90) subject to a maximum of 4.00. Also, results showed that the ATF affects the technology competence of Nigerian professional accountants, minimally. Given the nature of technologies – emerging, constantly evolving, transformative and disruptive, it is recommended that Continuing Professional Development (CPD) initiative should continue to be tailored to meet emerging needs, to ensure that professional accountants from emerging economies can favourably compete with their peers globally.

Keywords: accountants’ training framework; competence; Nigeria; professional accountants; SoMoClo; technology

1. INTRODUCTION

The global minimum technology competence requirement for professional accountants is the ability to demonstrate necessary general IT and IT control knowledge as well as competencies, knowledge and understanding of at least one of the three roles of managing, designing and evaluating information systems (IAESB, 2007). Technologies are rapidly changing global business landscape, placing a new dimension of demand on professional accountants to deliver value beyond traditional offerings. Yet it appears that little is being done to the current framework for the training of accountants to meet the future of work especially in emerging economies like Nigeria. Additionally, there are very few literatures in this area. One significant feature of this study is the use of the global education standard – the International Education Standard (IES) as a benchmark for measuring the professional competence in technology use among Nigerian professional accountants.

The accountants’ training framework (ATF) is constructed to unify the training leading a candidate to become a professional accountant as well as further training required to maintain professional competence. Education and training have mostly been used as a moderating variable in technology use studies (Ahadiat, 2005; Gammie, Cargill, & Hamilton, 2010; Tarmidi, Rasid, Alrazi, & Roni, 2014; Chaffer & Webb, 2017). This study differs by using it as a predictor variable. The study also developed a measurement criterion /index for ascertaining the social media, mobile and cloud (SoMoClo) technologies competence of Nigerian professional accountants vis-à-vis the global standard for the education of aspiring professional accountants and professional accountants. SoMoClo technologies taken as a case in point, because of their current prevalence. In addition, given the pandemic that struck the world, the place of SoMoClo technologies became more prominent as social media provided the required bridge for communications (both in-house and third parties). Due to the inability of many to access their physical office spaces, mobile and the benefits of the cloud came to the fore. Other sections include research questions, conceptual, theoretical, and empirical considerations, methodology, results and discussion and conclusion and recommendations.

2. RESEARCH QUESTIONS

1. How does the technology competence of Nigerian professional accountants align with the IES IT professional competence requirement?
2. What is the relationship between accountants’ training framework and the technology competence of Nigerian professional accountants?

3. CONCEPTUAL, THEORETICAL AND EMPIRICAL CONSIDERATIONS

Professional competence

Professional competence is the ability to perform a role to a defined standard. Professional competence goes beyond knowledge of principles, standards, concepts, facts, and procedures; it is the integration and application of (a) technical competence, (b) professional skills, and (c) professional values, ethics, and attitudes. (IAESB, 2015, p. 179)

Professional competence is omnibus covering all aspects of professional engagements and the ATF is used to achieve the various levels of competence – beginner, intermediate and advanced. According to the IES, technology competence includes five subject areas and competences: (a) general knowledge of IT; (b) IT control knowledge; (c) IT control competences; (d) IT user competences; and (e) One of, or a mixture of, the competences of, the roles of manager, evaluator, or designer of information systems. Beyond mere use of technology, the expectation among professional accountant include their ability to contribute to the development of policy and strategies for technology adoption (ACCA & IMA, 2015; IAESB, 2017).

There is significant literature on how ATF impacts on professional accountants' IT competence (Wessels, 2004, 2005, 2006; Pincus, Stout, Sorensen, Stocks, & Lawson, 2017). However, few studies have mentioned the alignment, adoption and/or adaption of the IES as a global benchmark.

Professional competence development by professional associations includes their professional programmes in both initial professional development (IPD) and continuing professional development (CPD). For example, the leading professional accounting association in Nigeria – Institute of Chartered Accountants of Nigeria (ICAN) used to depend on her tailored technology competence initiative (TCI) for new member IT qualification and CPD for existing members. The initiative was however cancelled in 2015 with a call to members to find ways of developing their technology competence.

International Education Standards (IES)

The IES is a global standard for the education of aspiring professional accountants and professional accountants. It is issued by the IAESB and published by IFAC. The IES serves as a balanced benchmark for use by professional accounting associations, higher education providers and related stakeholders (Saville, 2007).

Apart from developing professional competence, other desirable outcomes of the IES are to: reduce the “international differences in the requirements to perform a role as a professional accountant” and facilitate “the global mobility of professional accountants” (IAESB, 2017, p. 7).

Accountants' training framework (ATF) and Expectation gaps

Accountants' training framework as constructed in this study is dyadic, consisting of academic education and professional education, leading to qualifying as a professional accountant. Despite evidence that training is significant in competence building (Howieson, Hancock, Segal, Kavanagh, Tempone, & Kent, 2014) ample literature (see Chalmers & Wright, 2011; Laughlin, 2011; Oladele,

Adeleke, & Akintunde, 2013; Webb & Chaffer, 2016) have identified a significant lacuna. Another identified gap is the performance gap exposed by employers (Bui & Porter, 2010; Howcroft, 2017; Pincus *et al.*, 2017; Wells, 2018). These arguments suggests that there is a difference between what is taught in institutions and what is required in work places (Nokhal & Ismail, 2014). Technology appears as a general term used to explain automation of processes, operations, and outcomes. Accounting technologies include hardware and software used by professional accountants in the discharge of their duties. While some are peculiar to the accounting domain, others are not. The use of these technologies requires varying levels of training. Competence is fuelled largely by knowledge (Boulianne, 2014), yet the concept of knowledge is diverse and though knowledge should ordinarily translate to competence, this is not always the case (Oladele & Oyewole, 2020).

Theories

Learning theories abound and many point to processes, principles, and outcomes. The constructivist theory for example postulates that many factors determine learning and its outcome (Chaffer & Webb, 2017). This implies that no one variable can be attributed to improving learning outcomes, making learning an ambiguous construct. Another relevant learning theory is the Legitimation Code Theory (LCT) which explains the learner's perception (Myers, 2016). Additionally, the curriculum theory focuses on pedagogy and curricula used for learning (Lubbe, 2016). This study draws mainly from the Theory of IT Professional Competence (Havelka & Merhout, 2009). The strength of the theory lies in its ability to aid better understanding of gaps among academic training, learners' perception, and employers' needs.

Previous evidence

Bassellier, Reich, and Benbasat (2001) studied IT competence of business managers based on explicit and tacit knowledge from experience and cognition. Ong (2008) studied IT competence leading to sustainable comparative advantage of entrepreneurs of SMEs in Malaysia. Murphy (2016) studied perception and practice of professional accountants in relation to competence using an interview and found both similar and differing opinions. For example, he found that professional accountants in practice commit more to formal CPD, while those not in practice prefer unstructured CPD as a means of maintaining their professional competence. Most related studies used primary data – questionnaire and interview. We found that many earlier studies have not given much attention to the education framework of professional accountants and its relationship to their technology competence. This is the gap, this study fills.

Literature is replete (see Wells, 1994; Palmer *et al.*, 2004; Wessels, 2004, 2005; Gammie *et al.*, 2010; Parker *et al.*, 2011; Howieson *et al.*, 2014; Watty, Sugahara, Abayadeera, Perera, & McKay, 2014; Damasiotis *et al.*, 2015) with results of significant correlation between accounting education, facilitation/delivery and technology competence. However, not many of them correlated ATF with the technology competence of professional accountants. Given a consensus that education builds competence and capacity (Howieson, 2003; Kennedy, 2005; Howieson *et al.*, 2014), and a lamentation that the ATF is mostly out of date with current realities (Webb & Chaffer, 2016; Chaffer & Webb, 2017; Ellington, 2017; Pincus *et al.*, 2017) we contribute to literature by reviewing both

the ATF and technology competence of professional accountants, differently from earlier studies, especially given that SoMoClo technologies are considered as emerging.

4. METHODOLOGY

This study employed a survey design using a cloud-based questionnaire administered to Nigerian professional accountants. Prior to the administration of the main instrument, a pilot study was carried out using professional accountants (Bursary, Internal audit and Department of Accounting) from a private university. Results of the pilot led to the redesign of the main instrument. The pilot obtained eleven responses from a population of thirty-seven (37) – 30% response rate – contacted using data from the University staff directory. The low response rate is reminiscent of similar studies with between 10 – 35% (Bradbard et al., 2014; Chaffer & Webb, 2017; Jeake et al., 2013; Ramachandran Rackliffe & Ragland, 2016).

The use of expert panel review was adopted to determine validity of the research instrument used for the pilot and main study (Bhattacharjee, 2012) before and after the pilot administration. Reliability tests measuring internal consistency using Cronbach's alpha (α) returned poor α for SoMoClo preference previously used as a proxy for competence. This led to the elimination and replacement of the variable with direct items for measuring SoMoClo competence. Additional items (information system (3), general assessment (3) and specific assessment (10)) used to measure technology competence returned significantly high α of 95%, 88% and 93% respectively.

The survey which lasted about 11 months was disseminated using popular social media platforms and contacts with the leading professional accounting associations in Nigeria – ANAN and ICAN. Items used to measure technology competence are adapted from the IES and some earlier works (Venkatesh *et al.*, 2000; Ahadiat, 2005; Wang & Shih, 2009; Richardson *et al.*, 2013; Boulianne, 2014; Jamaluddin *et al.*, 2015; Stainbank & Gurr, 2016). An eligibility section was used to screen out potential respondents who are not professional accountants. The section comes after the introductory statement. The responses were 249, out of which only 203 met the eligibility criteria (professional accountants) for taking the survey. T-test was used to compare the technology competence of Nigerian professional accountants and the provisions of the IES, while correlation and linear regression were used to evaluate the relationship between ATF and technology competence.

The a priori expectation is that there will be a positive balance between the self-reported technology competence of Nigerian professional accountants and the provisions of the IES. Additionally, that the ATF will have a statistical positive and significant relationship and effect on technology competence among Nigerian professional accountants.

5. RESULTS AND DISCUSSION

Response and demographic information

As shown in Table 1, demographic data show that female respondents were less than 30%, consistent with evidence that male respondents are more predisposed to responding to online surveys (Sax,

Gilmartin, & Bryant, 2003). While this thesis may need further testing, evidence from Nigerian professional accounting associations (Association of National Accountants of Nigeria – ANAN and Institute of Chartered Accountants of Nigeria – ICAN) show that membership in their women associations – Professional Women Accountants in Nigeria (PROWAN) and Society of Women Accountants of Nigeria (SWAN) respectively is but a fraction of total membership (ANAN, 2018; ICAN, 2018). It therefore shows that the level of gender diversity and inclusion in the accounting profession in Nigeria is still low. There is contradictory evidence on the use of technology between male and female. While this is not the focus of this study, it is worth mentioning that literature supports the use of technology among male than among female as other factors such as cultural outlook and expectation are significant determinants of female use of technology (Venkatesh, Morris & Ackerman, 2000; Ahadiat, 2005; Webb & Chaffer, 2016; Smith & Anderson, 2018).

Only few respondents (37%) are 40 years and older. Except for 40% of the respondents who have between 1-5 years of experience, others have more than 5 years of professional experience. The results make a case for a mature respondent base.

Table 1: Demographic statistics

| Variables | Items | Fre q | % |
|--------------------------------|--------------------|------------------|--------------|
| Gender | Male | 144 | 70.9 |
| | Female | 59 | 29.1 |
| | Total | 203 | 100.0 |
| Age | 20-29 years | 70 | 34.5 |
| | 30-39 years | 57 | 28.1 |
| | 40-49 years | 38 | 18.7 |
| | 50-59 years | 31 | 15.3 |
| | 60 years and above | 7 | 3.4 |
| | Total | 203 | 100.0 |
| Professional experience | 1-5 years | 82 | 40.4 |
| | 6-10 years | 52 | 25.6 |
| | 11-15 years | 22 | 10.8 |
| | 16-20 years | 12 | 5.9 |
| | 21 years and more | 35 | 17.2 |
| Total | 203 | 100.0 | |

Source: Field survey (2019)

Competence alignment with IES

Professional accountants should possess the ability to demonstrate necessary general IT and IT control knowledge as well as competencies, knowledge and understanding of at least one of the three roles of managing, designing and evaluating information systems (IAESB, 2007). Under general IT, results indicated that professional accountants are more proficient in the ordinary use of technologies. This includes usage of mobile applications (>96% claim to be proficient) and up/down loading files

(>95% claim to be proficient.) This result can be justified by their ability to respond to the online survey, because it required basic computing skills. In a twist, only few of the respondents (<30%) claim some form of proficiency. While development of mobile application may not currently be a required skill by professional accountants, the curve towards it is almost certain, hence professional accountants may need to consider acquiring basic skills in application development. The t statistic and mean difference of proficiencies under “creating online presence”, “digital analytics tools” and “mobile app development” are negative, although the last two items are statistically significant. Given that the IES benchmark only requires that a professional accountant has knowledge and understanding of general IT, it is safe to note that generally, majority meet this standard. More than 80% of the respondents work in organisations operating a mix of both automated and manual systems. The environment where professional accountants work may be a significant determinant of their technology competence; this is not tested in this study.

For specific SoMoClo technologies, levels of proficiencies are generally lower compared to general IT, with proficiency in the use of mobile device at the top, while proficiency in the use of cloud technology lags. Only cloud technology has a negative and a statistically insignificant p-value. Although cloud technologies are well developed, supporting infrastructure for their use in emerging economies is still grossly lacking. Electricity, internet connectivity, data costs and the like remain significant challenges to the use of cloud technologies. Although results under the information systems division are the lowest, the study found that there are more professional accountants that can manage and evaluate information systems, than those that can design it. All the categories (manager, evaluator and designer) fell below the minimum threshold required by the IES; this is indicated by negative t statistic and statistically insignificant p-values as well as negative mean difference in all three categories. Information Systems design skills appear to be low among Nigerian professional accountants. This may be attributed to the specialised skill required for designing information systems that most professional accountants may not currently possess. However, we note that a course – Management Information Systems (MIS) – is taken in most tertiary institutions in Nigeria seeing that it appears on the benchmark minimum academic standard (BMAS) issued by regulators of tertiary institution – National Universities Commission (NUC) for universities and National Board for Technical Education (NBTE) for polytechnics and other specialised institutions.

Table 2: IT competence alignment with IES

| | Mean | σ | Std. Error Mean | t | df | Test Value = 3 | | | |
|--------------------------|------|----------|-----------------|--------|-----|-----------------|-----------|---|-------|
| | | | | | | Sig. (2-tailed) | Mean Diff | 95% Confidence Interval of the Difference | |
| | | | | | | | | Lower | Upper |
| General IT | | | | | | | | | |
| Creating online presence | 2.92 | 1.017 | .071 | -1.105 | 202 | .271 | -.079 | -.22 | .06 |
| Digital communications | 3.25 | .862 | .061 | 4.151 | 202 | .000 | .251 | .13 | .37 |
| Digital analytics tools | 2.79 | .964 | .068 | -3.129 | 202 | .002 | -.212 | -.35 | -.08 |

| | Mean | σ | Std. Error Mean | t | df | Sig. (2-tailed) | Test Value = 3 | | |
|-------------------------------|------|----------|-----------------|---------|-----|-----------------|----------------|---|-------|
| | | | | | | | Mean Diff | 95% Confidence Interval of the Difference | |
| | | | | | | | Lower | Upper | |
| Internet search and retrieval | 3.65 | .582 | .041 | 15.793 | 202 | .000 | .645 | .56 | .73 |
| Up/down loading files | 3.74 | .592 | .042 | 17.917 | 202 | .000 | .744 | .66 | .83 |
| Mobile app development | 1.65 | 1.235 | .087 | -15.570 | 202 | .000 | -1.350 | -1.52 | -1.18 |
| Mobile app usage | 3.61 | .614 | .043 | 14.165 | 202 | .000 | .611 | .53 | .70 |
| Managing online presence | 3.05 | .999 | .070 | .703 | 202 | .483 | .049 | -.09 | .19 |
| SoMoClo technologies | | | | | | | | | |
| Social media | 2.31 | .550 | .039 | 7.915 | 202 | .000 | .305 | .23 | .38 |
| Mobile device | 2.55 | .537 | .038 | 14.501 | 202 | .000 | .547 | .47 | .62 |
| Mobile application | 2.39 | .582 | .041 | 9.644 | 202 | .000 | .394 | .31 | .47 |
| Cloud technology | 1.95 | .651 | .046 | -1.079 | 202 | .282 | -.049 | -.14 | .04 |
| Information systems | | | | | | | | | |
| Manager | 1.77 | .790 | .055 | -4.175 | 202 | .000 | -.232 | -.34 | -.12 |
| Designer | 1.30 | .791 | .055 | -12.695 | 202 | .000 | -.704 | -.81 | -.60 |
| Evaluator | 1.67 | .824 | .058 | -5.791 | 202 | .000 | -.335 | -.45 | -.22 |

Source: Field survey, 2019

Relationship between ATF and competence

In Table 2, the mean and standard deviation (σ) scores of four items under professional qualifications show better results than for academic qualifications. Contrary to the suggestion that higher degrees support professional competence (Pathways Commission, 2014), respondents believe more in their experience in maintaining technology competence than in the value of a higher degree. This points to the challenges facing higher education in Nigeria, and the need to incorporate more technological applicable knowledge into the extant curricula and its delivery process.

Table 3: Demonstrable competence and ATF

| Items | Academic qualification | | Professional qualification | |
|----------------------------------|------------------------|----------|----------------------------|----------|
| | Mean | σ | Mean | σ |
| Appreciation of technology | 2.85 | .974 | 2.90 | .901 |
| Learning the use of technology | 2.73 | .923 | 2.77 | .912 |
| Demonstrable industry competence | 3.09 | .877 | 3.13 | .866 |
| Higher degree or experience | 2.47 | 1.031 | 2.67 | .945 |

Source: Field survey, 2019

Both Pearson correlation and regression tests were conducted on three areas of technology competence: information systems (IS), SoMoClo technologies and general IT; the results are presented in Table 4. Results show that competence in roles of managing and evaluating IS have positive and statistically significant correlation with the ATF while their R square were 2.4% and

3.2%, respectively. No statistically significant result occurs in competence for SoMoClo technologies, and their regression values are quite insignificant. Creating and managing online presence are the only items with statistically significant correlations with the ATF; their R-square are 5.1% and 4.2% respectively. It therefore appears that the training of professional accountants has significantly affected their hedonic use of technologies, while other areas of professional uses have been less affected.

These results draw from the generality of training that a professional accountant has received and not necessarily technology-tailored training. This notwithstanding, technologies should be the instrument of instruction for the training of professional accountants, since it has become the instrument for executing responsibilities and tasks.

Table 4: Relationship between ATF and Technology competence

| Items | ATF | | |
|------------------------------------|---------------------|-----------------|-------------|
| | Pearson Correlation | Sig. (2-tailed) | R Square |
| Information systems | | | |
| Manager | .155* | .027 | .024 |
| Designer | .127 | .070 | .016 |
| Evaluator | .178* | .011 | .032 |
| SoMoClo technologies | | | |
| Use of social media applications | .089 | .208 | .008 |
| Use of mobile phones | .031 | .661 | .001 |
| Use of mobile applications | .040 | .574 | .002 |
| Use of cloud applications | .053 | .457 | .003 |
| Ableness | | | |
| Social media | .025 | .720 | .001 |
| Mobile | -.029 | .679 | .001 |
| Cloud | -.068 | .336 | .005 |
| General IT | | | |
| Uploading/downloading files online | -.025 | .719 | .001 |
| Creating online presence | .226** | .001 | .051 |
| Managing online presence | .204** | .004 | .042 |
| Digital analytical tools | .032 | .651 | .001 |
| Mobile app development | .043 | .539 | .002 |
| Digital communications | .107 | .130 | .011 |
| Mobile app usage | .018 | .797 | .000 |
| Internet search and retrieval | .086 | .221 | .007 |

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

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

Source: Field survey, 2019

6. CONCLUSION AND RECOMMENDATIONS

This study considered the measured views of professional accountants on their training framework in Nigeria and how it has shaped their technology competence to help in the discharge of their duties. Given that education will continue to form the bedrock for the development and maintenance of professional competence, we found little support that the current training framework is able to prepare professional accountants for the future of work, although current skill levels may be acceptable. The following are suggested:

1. Gender diversity and inclusion policies and strategies need to be strengthened to ensure that more female are able to enter and remain in professional accounting domains.
2. The adoption or adaptation of IES as a global benchmark for the training of aspiring professional and current professional accountants must be definitive. National Universities Commission (NUC) and National Board for Technical Education (NBTE) for example in Nigeria, including professional accounting associations are required to commit to a greater responsibility in embracing the IES for professional competence development and maintenance.
3. Beyond hedonic applications of technology, which may be self-learned, stakeholders of accounting education should prioritise training of aspiring professional accountants through IPD initiatives and professional accountants through CPD initiatives.
4. Given that there is evidence that higher education potentially increases professional competence, and given the minimal value placed on it by respondents, education providers in Nigeria will need to commit to policies and strategies that ensure that students at all levels, especially postgraduate students are able to acquire advanced technology skills and competences. The pedagogy system adopted by these education-providing institutions have to be modified to fit what is obtainable and useful for the future of work.
5. Research on how technology affects accounting professionals involved in small and medium enterprises is still scanty. Given their significance, research to identify the technology competence of professional accountants in this sector of the economy is required.

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INFORMAL ECONOMY ACTIVITIES AND THE CHALLENGES OF THE GLOBAL HEALTH PANDEMIC AMONG WOMEN IN LAGOS, NIGERIA

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ABSTRACT

Commenting on the significance of the informal economy as a path to employment creation and sustainable development, the growth witnessed in recent time has ushered in drastic changes within the context and activities of this economy. The on-going global health pandemic (COVID-19) has further exacerbated the worsening conditions of the informal economy with severe consequences, especially for women. This reinforces the position that activities of the informal economy remain unstructured with daring challenges. The study assesses the activities of the informal economy in the era of COVID-19 among selected women informal economy workers/traders in Lagos, Nigeria. The exploratory research design was employed to advance the research gap with a total of 20 women informal economy workers/traders recruited for interviews through the convenient recruitment strategy, and the qualitative content analysis technique was employed to analyse the data. Findings reveal a number of activities, including street vendors, casual employees, small and medium-scale enterprises and homes-based entrepreneurs, among others, with health and safety challenges, precarious employment status, irregular or no remuneration, lack of social security protection, poor working conditions and gendered violence against women. The impact of COVID-19 reveals loss of jobs, decrease in sales for women traders and increased domestic violence, among others. The study makes a case for effective monitoring of activities of the informal economy and appropriate palliatives for the amelioration of the challenges of women in the informal economy, especially in this era of a global health crisis.

Keywords: Informal Economy, COVID-19, Women, Work, Lagos

1. INTRODUCTION

The global indicator on informal economic¹ activities revealed that approximately about two billion people participate in informal employment (International Labour Organisation-ILO, 2018). This connotes over 60% of the global labour force and comprises 90% of all existing small and medium-scale enterprises, respectively (ILO, 2018). This explicates social and economic challenges for developing countries such as Nigeria, where a handful of the population depends directly or indirectly on the activities of the informal economy for survival and sustainability (Akinwale, 2014). Informal economic activities in most developed and developing countries are presently undergoing economic and social changes as changes in global globalisation continue to affect major economies (Olu-Owolabi et al. 2020). The structure of activities in the informal economy comprises small and medium-scale enterprises (often family businesses), contract/casual workers, home-based entrepreneurs, street vendors, petty-traders and service providers (Adewumi & Adenugba, 2010), and these economic activities are generally conceived as a means of survival for the poor. The shortfalls in government and other formal employment structures to absorb the growing number of unemployed persons and the increasing rise in migration explain the continued expansion of the informal economy for survival (McGann, White & Moss, 2016). With the high incidence of unemployment, lack of social protection and low human capital development, the informal economy has not only remained an option, but has continued to swell (Peprah, Buor, Forkuor & Sanchez-Moral, 2019).

Studies have shown that the informal economy is largely patronised by individuals at the end of the urban range (Jawando & Adenugba, 2014; Darbi & Knott, 2016). Therefore, it can be expected to overcome the bane of capital and skill limitations. However, the extent at which these barriers can be effectively broken depends on a number of policy issues and strategies. Within this is the verity that women informal economy participants remained the most affected by these barriers (Chidoko & Makuyana, 2012). According to the National Bureau of Statistics (NBS), the participation of women in the informal economic activities in Nigeria is at an alarming rate with representation of 58.5% in 2017 to an increase of 67.5% in 2018 (NBS, 2018). This mounting increase, therefore, ropes the need for a holistic analysis of Nigeria's informal economy for a more productive activity for the well-being of women.

Many women entrants into the informal economy are provoked by the need to support and assist families, especially where the other spouse is financially handicapped to meet up with the family's financial budget. In expectation, women have been largely constrained by several challenges in a bid to achieve this objective. This expectation has been deeply affected by governments' inaction and policy inadequacies in many developing countries, Nigeria not excluded (Darbi & Knott, 2016). The

¹ The term informal economy is used in this paper as opposed to informal sector to explain the changing trend in work informality. In other words, it refers to all economic undertakings by individual and economic units that are legal and not covered or protected by formal employment arrangements (ILO,2015).

social and cultural arrangement of Nigeria has birthed a debilitating circumstance for women informal economy workers, including economic hardship, social exclusion, psychological and emotional abuse, and gender violence and inequalities (Chiwendu, 2016). Others include the concern of safety and health, institutional and social barriers, precarious work conditions, harassment, intimidation and discrimination (Onyenechere, 2011). These challenges demonstrate the perilous position of women in informal economic activities. With this in mind, the paper seeks to uncover the peculiarities of these challenges in a COVID-19 pandemic era. Specifically, the paper seeks to understand the content and activities of women participation in the informal economy, identify women's challenges and understand the impact of the COVID-19 global health pandemic on women informal economy participants. In other words, the paper seeks to interrogate the context and activities of women participation in the informal economy, understand women's challenges in the informal economy and the impact of the global health pandemic on women informal economy activities.

The literature is replete with informal economy discussions. Studies conducted outside Nigeria include the characteristics of the informal sector activities and the challenges faced by women in Kumasi Metropolis' (Peprah, Buor, Forkuor & Sanchez-Moral, 2019) women informal economy: its characteristics and legitimacy within the integrational context (Avasthy, Ray & Deb, 2013). In Nigeria, they include the female-dominated informal labour sector and family (in)stability: the interface between reproduction and production (Olu-Owolabi et al., 2020); Precarious working conditions and exploitation of workers in the Nigerian informal economy (Akinwale, 2014); and the role of the informal sector in the development of the Nigerian economy: output and employment approach (Onwe, 2013). With this collection of studies, scholarships on women activities and challenges in the informal economy in the COVID-19 era in Nigeria have hardly been reported in the literature. This argument represents the research gap.

The basic contribution of this paper is the verity that existing studies on the activities and challenges of women participation in the informal economy in a COVID-19 era is still largely sparse in the canon of informal economy studies in Nigeria. By examining this issue, it is probable to provoke a fresh description of women participation in the informal economy in a changing economic order stimulated by COVID-19. After an exposition of the informal economy, the paper discusses women informal economic activities and its challenges. The labour market segmentation theory was reviewed as the theoretical leaning. Detailed methods and methodological approaches were discussed, and the paper calls for a renaissance of the Nigerian informal economy in order to appropriately unpack its economic potentials for the benefits of women, and Nigeria in general.

2. LITERATURE REVIEW

2.1 Exposition of the informal economy: The Nigerian perspective

The conceptual clarification of the informal economy is described as work activities lacking regulations and structure. Several commentaries have argued that activities of the informal economy are embraced out of the necessities for survival (Onyenechere, 2011; Chidoko & Makuyana, 2012). Therefore, the contemporary informal economy work arrangement is generally conceived to have emerged from the direct by-product of the liberalised global world economy. From informal

economic activities such as street selling and petty-traders, to home-based entrepreneurs, the conventional conception is that these economy activities are accepted by people as a survival net with low remuneration and poor working conditions (Awojobi, Ayakpat & Adisa, 2014). Put differently, the informal economy participants are entrapped within an exploitative global economic system where the conditions of work are severely becoming more inhumane and distanced from the decent work agenda narrative (Forste & Fox, 2012).

A close scrutiny of informal economic activity trends in Nigeria exudes that the capitalist inclination for the continued accumulation of capital has continued to reflect in the high rate of workers' exploitation. Unfortunately, the large majority of Nigeria's labour force are concentrated in the informal economy and are not covered by labour law legislations (NBS, 2018). Consequently, there is an obvious lack of labour standards and regulations in Nigeria's informal economy with the absence of legal protection with unsafe and poor working conditions. The Nigerian informal economy essentially comprises owners of micro- and small-scale enterprises cutting across the four chains of production, including producers, wholesalers, retailers and consumers (Olu-Owolabi et al., 2020).

The informal economy workers are predominantly self-employed, including farmers, traders, craftsman, and streets vendors among others (McGann, White & Moss, 2016). The economy is inflated with various ranges of economic activities. However, in Nigeria, the large constituent of the informal economy traders is grossly involved in agriculture and other agro-based commodities, with women representing a large number of these participants (NBS, 2018). The lack of skills and other attributes has affected the Nigerian informal economy workers in their level of production and enterprise. They adopt old-fashioned and labour-intensive tools of production and work longer hours with little produce and income (Fapohunda, 2012). Workers in this sector of the economy are often described as being ignorant of safety rules and regulation and are frequently exposed to harmful working conditions (Nguyen, 2015). This position is made worse through the ambiguous contents of Nigeria's labour laws, and particularly with the non-recognition of informal workers in any known labour laws. The Nigerian informal economy no doubt has been receiving increasing attention within the employment and labour law discourse. In fact, it has consistently remained the tropical issue among policymakers and to some extent government and other labour-related regulatory institutions, not excluding trade unions. In contrast, however, diminutive efforts have been chronicled to alleviate the challenges of workers in the Nigerian informal economy. This argument forms the nub of this study.

2.2. Analysing the informal economic activities and challenges: Emphasis on women

The connotation of informal economic activities is progressively emerging globally as a means to addressing the high spate of poverty (Abolade, Adebayo & Ogini, 2013), which has remained an ongoing challenge to humanity (Awojobi, Ayakpat & Adisa, 2014). In other words, if informal economic activities are positioned to reduce poverty among women, it is still unclear whether this potential may become attainable as women are plagued with varying challenges constraining the realisation of this objective (Ferreira, 2016). Therefore, it is fundamental to identify the informal economic activities and how they are positioned as challenges to women. To explicitly understand the challenges of women in the informal economy, it is crucial to unravel the oppression of women

from three standpoints, as conceived by Smit and Fourie (2010), namely individually, institutionally and societal/cultural. Firstly, from the individual standpoint, oppression can be a single individual, or specific social group as it obtainable in a patriarchal society. Through institutions, oppression comes from the conditions attached to rules, policies and other customary practices such that women are always found at the end side of the rules (Smit & Fourie, 2010). Lastly, the social cultural form of expression captures the constraint of rituals, social norms and other forms of cultural discriminatory practices placed on women (Smit & Fourie, 2010).

The above illustration can be argued as an extension of the challenges cemented on women as participants of the informal economy (Okafor, 2012). For instance, women informal economy workers characteristically operate at very truncated levels of organisation and balance, and are often limited by institutional barriers to access loans (Edusah, 2013). This analysis portrays the failure of the Nigerian government to make loans accessible to informal economy workers, especially women who have been long neglected by the political and gender-related policies of the Bank of Industry (BOI)² (Akinwale, 2014). Studies have also shown that women informal workers lack recognised places for the sale of their produce and are left to self-protection from local authorities and other related taskforce challenge (Etim & Daramola, 2020; Mahadea & Zogli, 2018). This perspective aptly describes many of the challenges local government task force operatives enact on women informal workers in Nigeria.

The work and activities of women informal workers are often conceived as lacking legal considerations and support, and therefore the continuous neglect in support in the areas of organising and their operations is entirely market based, devoid of government intervention (Mahadea & Zogli, 2018). The majority of the activities of women in the informal economy are tied to the traditional roles of petty trading and their pursuit of a more appropriate business location and are usually constrained with the twin survival task of vending and family responsibilities of child upbringing (Etim & Daramola, 2020). Again, this position neatly reflects the overwhelming socio-cultural demands placed on women by social norms and culture at the expense of economic survival. They often struggle with inadequate infrastructure for productivity and sales of their produce (Mahadea & Zogli, 2018). Put together, it is not far-fetched to argue that the unavailability of appropriate regulatory mechanisms and the scaling effect of COVID-19 on businesses have further compounded the challenges of women in the Nigerian informal economy.

Women have long remained the invisible component of the informal economy in areas such as domestic labour and assistance in family business, which are largely characterised by precautious employment (Schenck, Blaauw & Armoede, 2016). Women informal economy workers are often on low or irregular remuneration and have little or no access to social security and protection (Mahadea & Zogli, 2018). Underprivileged women employed in the informal economy are also susceptible to a range of health-related issues and unsafe work environments, gendered violence and increased

² The BOI is Nigeria's financial institution saddled with the provision of financial assistance to large, medium and small-scale businesses

vulnerability to HIV/AIDS (Emmanuel et al., 2016). Gendered earning discrepancies in the informal economy reflect, and in many circumstances exceed, those in the formal economy as a result of both vertical and horizontal discrimination in employment and continuous gender inequalities (Emmanuel et al, 2016). The continuous challenges for women in the informal economy need a policy and legal enactment towards ensuring the bane is effectively addressed.

The Nigerian informal economy over the years has continued to engender benefits to the citizenry despite the prevailing hostile economic policy compounded with the on-going COVID-19 pandemic. Many underprivileged people have benefited through access to the activities of the informal economy for income and survival (Adewumi & Adenugba, 2010). However, the enormous majority of active participants in the economy are women and are vulnerable to different strands of challenges (Schenck, Blaauw & Armoede, 2016). The arguments, therefore, emphasised in this paper are the need to promote the activities of the informal economy as recourse for alleviating women challenges with a close examination of the economic effect of the COVID-19 pandemic on women.

3. LABOUR MARKET SEGMENTATION: THEORETICAL ANALYSIS

The article proceeds from the theoretical understanding of the labour market segmentation theory (LMS) with a need to appreciate the activities and challenges of women informal economy participants within the discourse of labour market operations and functions. On its origin, the LMS can be traced to the 1960s when the theory evolved as a critique to the proposition that the operations and functions of the labour market can be understood with the knowledge of individual educational skills and the desire to work, rather than a comprehensive understanding of employers' strategy of classifying labour (Reich, Gordon & Edwards, 1973). Because of the need to propagate a far richer understanding of the constellation of issues predicting the functions and activities of the labour market, Doeringer and Piore (1971) advocated for the stratification of the labour market into two separate unequal components; the primary and the secondary labour market, respectively.

The main contention of the LMS theory explains that there are different and non-competing groups in the labour market and their differences are not provoked by the possession of certain skills or education attainment, but by social and institutional dilemmas (Akinwale, 2014). These factors have engendered discrimination between the primary and secondary labour markets. For instance, Jakstiene (2010) argues that the primary labour market comprises individuals with secured employment conditions, career progression, safe and good work environment and opportunity for the expression of human rights. The secondary labour markets consist of unsecured employment patterns, poor and inhumane working conditions, low compensation and unstable work (Jakstience, 2010). This is sufficing to argue that the primary labour market is likened to the formal economy with structured and organised work activities, while the secondary labour market is typified of the informal labour market with unstructured and unregulated work activities (Adino & Nebere, 2016).

The conditions of work in the informal economy neatly describe the activities and features of the secondary labour market, including low wage, lack of social protection and the denial of right of

association as enshrined in Nigeria's constitution³. Therefore, it is safe to argue that the assumption of the LMS is appropriate to describe the operations of Nigeria's labour market with varying difference between the activities of the formal and informal economy. The debilitating effect of the COVID-19 global health crisis has further shrunk the performance of labour markets across the globe, thereby engendering a more fatal challenge for women in the informal economy, including low access to loans, unregulated work practices, inhumane working conditions and the repeated failure of the Nigerian government in ensuring a safe haven for women in this sector of the economy through appropriate policy formulation and implementation. Conclusively, the assumptions of the LMS theory is employed in this study as a roadmap to understanding the challenges of women in the informal economy amidst the COVID-19 health crisis.

4. METHODOLOGY

The study employs the exploratory research design to expand the boundary of knowledge on the activities and challenges of women in the informal economy in the era of COVID-19. The major assumptions raised in this study were neatly understood with the qualitative research approach. On recruitment strategy, the convenient sampling techniques was employed to recruit women informal economy workers/traders from selected markets at the Oju Iwoye local market, Mushin Local Government area of Lagos State, Nigeria. This was to ensure that only women informal economy workers who are convenient with the content and timing of the interview participated in the study (Shields & Rangarajan, 2013; Sekeran & Bougie, 2016). Lagos State is justified as the research settings being the economic hub and the most economically active state in Nigeria (NBS, 2020). With a growing population of over 21 million, the state harbours the highest number of informal work activities with a growing number of women active as informal traders (NBS, 2020). A total of twenty (20) informal workers/traders were recruited for interviews. It is appropriate to argue that a sample size not more than twenty (20) has consistently been contended in the literature as appropriate to engender deep understanding and exploration of a research problem (Yin, 2016). The different components of women informal workers interviewed include those in petty trading and informal entrepreneurs. This population of informal traders/workers spans across different businesses and enterprises. The study adopts the semi-structured interview approach in stimulating qualitative data to understand the research aim.

The entire interview process strictly follows all the pharmaceutical interventions for the prevention of the spread of COVID-19 and lasted for a period of two (2) months between February-March, 2021. The data collection exercise was done through telephonic interview and all responses were recorded for ease of transcription into texts. An interview guide was employed to ensure consistency and uniformity of responses. The data collection exercise begins with a clear introduction of the research goal and all ethical rules of engagement were all read out to participants. Participants were all assured of their anonymity and the opportunity to cease to participate should they feel so (Saunders, Lewin & Thornhill, 2009). The NVivo (v.12) qualitative software was used in the identification of themes

³ Section 40 of the 1999 Constitution as amended in 2011

from the transcribed interviews, and these themes were thereafter analysed with the content qualitative analysis method.

5. ANALYSES AND FINDINGS

5.1 Context and activities of women participation in the informal economy

The context and activities of Nigeria's informal economy differ across sectors, with increased visibility in the agro-related sector. This narrative emphasises that most of the Nigerian working population is in the informal economy with women having a large number of representations (NBS, 2018). The activities of women informal economy participants can be unpacked from different components as shown in this study, including micro- and small enterprise owners, street vendors, home-based entrepreneurs, petty traders and casual employees. The conditions and activities of work exemplified in each of these components clearly explain the unstructured and unregulated challenges of the informal economy. The majority of the participants in micro- and small enterprises are owners of their businesses, and this to an extent gives them the capacity to control and expand their businesses. In other words, understanding women's potential and the availability of opportunity and support are pointers to ameliorate the continued challenges of women informal economy workers.

A number of women who cannot participate in micro- and small enterprises owing to financial constraints are entrapped in being street vendors and in home-based informal work activities such as the production and sale of agro-related items for survival. On the contrary, activities of women informal economy participants were more related to petty traders and casual employees according to the majority of the responses. Accordingly, these categories of informal economy workers enjoy free entrance and the constraints of capital set-up are minimal or non-existent. A 42-year-old micro- and small business owner stated as follows:

I think working in the informal economy for me is as important as my survival, especially as a business owner. Even though there are lot of constraints that still come with being a business owner as a woman where you have to balance the activities of the business with other domestic responsibilities and child up-bringing. The bottom line is that I am able to support the family with the little proceeds I make from my business and that obviously go a long way.

Another participant, a 39-years-old home-based entrepreneur adds to the available evidence that the activities of the informal economy have offered women, especially stay-at-home women, the opportunity to advance their potentials and the opportunity to look after the home and children.

As a woman, I found this work routine flexible and it affords me the opportunity to be in charge of the welfare of my children. I am a mistress and makes lady dress and all of these are done from the confines of my house. I only step out to buy materials and other times to deliver finished work, when it becomes mandatory I do. My participation in the informal economy activities as a woman is not without its challenges in striking balances with work and house chores, but I am okay with the structure of things to an extent.

The activities of the informal economy in Nigeria are characterised by unregulated measures in the area of safeguarding the interest of women participants. It was largely expressed that the bane of non-

regulatory frameworks has increased the number of women petty traders and casual employees. For instance, the majority of the respondents talked about the increasing number of women casual labourers in the informal economy as a result of the absence of legal protection extended to casual employees. It was argued that the non-recognition of the informal economy has further worsened the activities of the informal economy such that women are often used as experiments. The argument that follows from this analysis is how will the Nigeria government take on the responsibility of regulating the activities of the informal economy for the growth and advancement of women participants? One of the respondent, a 43-year-old petty trader narrated her opinion as follows:

I am a petty trader and I sell agro-related produce just to keep body and soul together, and importantly to survive. As a women participating in the informal economy, a lot is attached to it. The activities here are not structured and the fact that they are unregulated seem to worsen the narrative. I have to be up as early as 4:30 am to ensure I am able to catch up with the early morning sales and my children have to take care of themselves in terms of planning for school. I cannot afford not to come as early as I should, otherwise, I would suffer some finance setback that day and the end effect is that my children will also be affected in terms of care. The activities to an extent does not favour women as per being the home runner and all.

5.2 Understanding women's challenges in the informal economy

A number of work-related challenges were reported by the majority of the participants to include precarious employment type, low remuneration, as well as health and safety risks. Others are a lack of social protection and horizontal discrimination and employment, and gender inequalities. It was revealed that most of the women informal economy participants are entrapped with severe work difficulties, especially those related to institutional and social barriers. For instance, the poor regulatory effort of the Nigerian labour market by the Nigerian Ministry of Employment and Labour has further advanced the collection of these challenges. It was also reported that the dreadful precarious employment conditions of women informal workers are not commensurate to the low remuneration they are paid. The general perception describes women participation in the informal economy as an extension of the challenges of the social and cultural discrimination placed on women. For instance, the ambiguous content of the Nigeria Labour Act has perpetually made the realisation of revitalising the informal economy a difficult adventure, with the non-recognition of informal workers, and a large part of these burnt are being felt by women who are captured in the cultural dilemma of not to be heard. One of the participants, a 28-year-old casual employee, reported as follows:

As expected, there are lots of challenges, but the fact is the job has to be done to be able to survive at least. One of the challenge we face is you do whatever they asked you to do and most of the work here are factory, meaning you are exposed to endanger in one way or the other. It must be stated that the remuneration we receive are far less compared our work input and there are no additional benefits whatsoever even if you are injured as a result of working with the machines. You can imagine women being exposed to these kind of challenges. I think this is just heart-wrenching and like I said, we have to do this as there are no other means of survival.

The majority of the responses gathered also reflect on the health and safety risks associated with the activities of the informal economy with dire consequences for women. The description of the activities explains that women participants from all fronts, vendors, employees and petty traders, are subjected to a range of health risks, especially those unconnected with the intimidations from local government officials who frequently harass them for taskforce levy. One of the respondents, a 27-year-old street vendor, explains how the continued harassment and physical assault from these officials have sent many women to their early grave as a result of the severe injuries sustained and others with perpetual health challenges.

As a participant in the informal economy, especially as a woman I can tell you that we are encumbered with a lot of health and safety challenges. Either as a business owner or working as an employee, the conditions are almost the same. I can tell you a number of times that women have been victims of task force harassment and terrorizations. We have had a number of instance that these harassment has evolved into a severe health risk for women here and with these, we have had a lot of casualties where some people have been led into a running vehicle and others with severe injuries.

Another challenge was explained by another participant who, among other challenges of the informal economy, is largely subjected to horizontal discrimination and gender inequalities in the informal economy in terms of employment distribution and denial of access to decent work with equal pay. A 36-year-old informal economy casual employee explained it as follows:

I have been victim of serial discrimination as a woman in this sector of the economy. You will discover that most women are discriminated against based on social perception that women are weak and incapable of doing some activities, despite the obvious evidence out there that women can do as much as what men can do themselves. It is also evident that majority of women in the informal economy are being paid lower in comparison with their male counterpart even with the industrious nature of women. So you see that these things continue to evolve and women are largely suffering as victims.

5.3 The impact of the global health pandemic on women informal economy workers

The dreadful impact of COVID-19 on economies globally is no doubt awful with antecedent consequences in the areas of job loss and continued labour market volatility. Several economic challenges have been recounted by the Nigeria apex Bureau of Statistics, including drastic decreases in earning power and increased inflation. In terms of the significant impact on women participants in the informal economy, it was argued that the COVID-19 health pandemic has affected the activities of women participants in the informal economy giving rise to reduced finances and low patronage of their trade and enterprise. The enormous numbers of retrenchments and job losses across the industrial and service sector have indeed reduced the purchasing power of many Nigerians, leading to poor patronage of informal economy trades and ventures. In other words, many women-owned enterprises have liquidated and most have exited from the informal activities with difficulties to feed and support their families.

The argument that follows with this submission is how will the Nigerian government constitute appropriate palliative measures to relapse the increasing level of hardship women in the informal economy are faced with as a result of the COVID-19 global health pandemic? The answer to this question is unconnected to the need for appropriate regulation of the informal economy with robust support measures. Similarly, other participants cited the challenge of increased domestic violence during the lockdown between couples who are forced to be at home with their spouses in compliance with the lockdown. One of the participants, a 32-year-old entrepreneur, explained as follows:

The going COVID-19 global health pandemic has really affected the Nigeria economy in diverse ways and the world in general. As an entrepreneur in the informal economy, I have really felt the negative impact and I am still feeling it as a matter of fact. Think of a women entrepreneur who have to support the family in little ways she can through her produce, then you are refereeing to me. But since this pandemic has started, the finance has drastically reduced and we have been receiving low patronage because the economy is not buoyant in itself. The impact of this on me as a woman is so devastating and I am not taking care and supporting my family as I used to do.

The challenge of the COVID-19 health pandemic on women informal economy participants is clearly not restricted to the loss in patronage and reduced finance. The incidence and increase in the rate of domestic violence were also shared. Explicitly, the narrative captures the negative effect of the lockdown on women as cases of domestic violence were reportedly high, thereby furthering women's challenges as participants of the informal economy. One of the participants, a 35-year-old street vendor, recounts her experience.

One of the impact of the COVID-19 on women informal economy workers I can relate with you is the concern of the increase in domestic violence. Although this was the case for all women globally as a result of the lock down initiated the world over to ease the spread of the COVID-19 virus, but I am speaking as a victim and through the perspective of an informal economy trader. I can vividly recall the magnitude of domestic violence I went through with my husband due to the lockdown and I am sure a lot of women in the informal economy will at least, experience this. The implication is that I could not continue with my business even after the lockdown was eased and this affected how I care for my children in a way.

A large number of the women interviewed confirmed that the COVID-19 global health pandemic has taken many women in the informal economy out of trade and jobs as liquidation of enterprises continues to soar. For instance, one of the participants, a 28-year-old business owner, recounts how a number of persons have been kicked out of business owing to low sales and increased debt.

I am aware of some women in this informal economy that we are in the same line of enterprise that are no longer in business due to the ravaging impact of the COVID-19 pandemic on the economic, Nigerians purchasing power. It is interestingly to note that some of these women are the sole provider for their families while other supports their family immensely. You can imagine what being out of business and trade would mean to all of the people depending on the proceed they get from their business. Like I said previously, women in the informal

economy have been severely affected by this pandemic and the call is for government to intervene and help the women.

6. DISCUSSIONS AND CONCLUSION

The focus of this paper has been to understand the activities and challenges of women informal economy workers in this era of COVID-19. The on-going global health pandemic offers a rich laboratory for appreciating women's challenges in the informal economy by critically understanding how the activities of the informal economy affect women. Regulating the activities of the informal economy has been argued consistently as clear-cut to economic prosperity of any nation. Its importance explicitly can be reflected in its enormous contribution to the gross domestic product to any nation. As shown from the paper, several activities were reported as the most practised economic activities for women in the informal economy, including petty trading, street vendors, owners of small and medium-scale enterprises, home-based entrepreneurs and casual employees. These findings depict the many trends of activities done in the informal economy with the large majority of women at the forefront of many. Again, this narrative explicitly explains that while the informal economy has been generally conceived as a survival net for many, there is no doubt that this sector of the economy is largely patronised by women. These findings corroborate existing empirical studies (Buor, Forkuar & Sanchez-Moral, 2019; Schenck, Blaauw & Armoede, 2016; Akinwale, 2014; Avasthy, Ray & Deb, 2013). Clearly, regulating and monitoring the activities of the informal economy is no doubt a turn towards improving the welfare of women in this economic sector.

The study reports that the poor regulatory function of the informal economy on the part of government and its agencies has resulted in a number of constraints for women, including increased precarious employment terms with low benefits, the proscription of the fundamental human right to association where required. Other challenges reported include poor health and safety concerns for women traders, vendors and entrepreneurs, physical intimidations and harassment by taskforces, and the problem of discrimination and gender inequalities. This array of challenges is no doubt a reflection of the condition and work situation of the informal economic activities of many nations as consistently reported by the ILO. However, the increased difficulties faced by women in the case of Nigeria can be linked to the poor coordinating efforts and regulatory functions of the informal economy by the Nigerian government in the area of empowering women through robust participation and positioning it as a veritable economic tool for the development of the country. The collection of these findings support many existing literature studies (Olu-Owolabi et al., 2020; Ferreira, 2016; Nguyen, 2015; Onwe, 2013).

The impact of the COVID-19 global health pandemic on women informal economy traders/workers reveals the concern of reduced finance and low patronage, as well as liquidation of existing enterprises. Difficulties exist in setting up a new enterprise and increased domestic violence is a concern. These findings, notwithstanding the existing poor economic performance of Nigeria, have exposed the many problems of women in the informal economy. For instance, the consequential effect of the COVID-19 pandemic has increased the existing economic hardship in Nigeria resulting in low purchasing power and poor patronage on the part of women informal economy traders. Therefore, the

far-reaching effect is evident in poor economic sustainability for families of women informal economy traders, especially women who staunchly support their families financially.

The conclusion provoked from this study is that clarity has been offered to the challenges facing women in the Nigeria's informal economy. The study also draws its conclusion on the premise that appropriate strategies for the effective functioning of the informal economy should be employed for enhance health and safety of women in the informal economy. In other words, the study argues that, while the COVID-19 pandemic has caused major disruptions in the economic activities of the informal economy, it is important to state that soliciting for women's assistance can go a long way in alleviating their economic hardship and improve their social security. Conclusively, the study recommends a robust and effective measure on the part of the Nigeria Ministry of Employment and Labour towards revitalising the informal economy in a way that it can be appropriately positioned as an economic hub for sustainable development and a redress to many of the challenges facing women in the informal economy.

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SOCIAL ENTREPRENEURSHIP PEDAGOGY AND SOCIAL VENTURE CREATION IN A COVID-19 ERA: PERSPECTIVE FROM THE LAGOS STATE UNIVERSITY, NIGERIA

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ABSTRACT

The discourse of social entrepreneurship pedagogy has been repeatedly debated in the literature as critical to the development of students' entrepreneurship mind-set, with paucity of research on social venture creation. The increasing loss of paid employment provoked by the changing economic order and the recent Covid-19 global health crisis has shown the importance of social entrepreneurship pedagogy as a tool for social venture creation. The study unravels the significance of social entrepreneurship pedagogy for social venture creation among selected final-year students of Lagos State University, Nigeria. A total of 22 final-year students were purposively and conveniently recruited for this study and the qualitative data were analysed with the NVivo (v.12) qualitative software. Results reveal the absence of social entrepreneurship pedagogy initiatives including case studies, seminars/workshops, networking, lectures and internships. Results show that the university has not shown interest towards the development of students' social entrepreneurship pedagogy. The failure of university administrators to invest in students' entrepreneurship pedagogy is robustly affecting social venture creation, with consequences for increased graduate unemployment. The study concludes that the management of the university must strive to constitute appropriate students' entrepreneurship pedagogy initiatives for students' entrepreneurial intention to create social ventures. In addition, such initiatives must be well tailored to students' educational curriculum for best results.

Keywords: Entrepreneurship, social entrepreneurship pedagogy, Covid-19, social venture, education

1. INTRODUCTION

Globally, the need for the promotion of economic growth for human needs and sustainability is unconnected to the promotion of decent and humane work (Adelekan, Arogundade & Dansu, 2016). As major disruptions of global economies continue to escalate, particularly the economic downturn conveyed by the global health pandemic (Covid-19), the pursuit of human needs and sustainability has been greatly affected. The campaign from paid employment to self-employment and entrepreneurship has in recent time become more robust. Therefore, with the rising economic instability and job loss, university students are now more encouraged to embrace the enterprise spirit through effective social entrepreneurship pedagogy initiatives. In other words, the importance of entrepreneurship education offers students the appropriate insight into career choice, and mind-set towards social venture creation (Onuwa, 2016). It is sufficing to say that through appropriate

entrepreneurship pedagogy initiatives, students can understand the intricacies of social entrepreneurship and create a venture that can be of benefit to society.

In Nigeria, there is scarcity of evidence to support government investment in students' entrepreneurship education (Adekunle & David, 2014). The ascending fallouts from youths' dependence on graduate jobs and unemployment, which accompanies poor entrepreneurship education and ambiguous course content, is yet to rouse the attention of the Nigerian government towards the revitalisation of the universities of higher learning as entrepreneurship hubs (Alabi, Famakinwa & Ogunjimi, 2017). For instance, available evidence reveals the lack of entrepreneurship centres and development in many Nigerian universities of learning (Nigerian University Commission-NUC, 2018)⁴. In other words, the requisite knowledge and skills required to understand the intricacies of the business world and contribute to societal relevance through social venture creation are no doubt embedded in the quality of entrepreneurship education accessible to students (Uzunidis, Boutillier & Laperche, 2014).

The relevance of university education as a tool for human capacity development and entrepreneurship skill acquisition has continued to undergo serious scrutiny (Onuwa, 2016) as there seems to be no link between university education and students social venture creation skills (Sarikaya & Coşkun, 2015). This non-connectedness reflects the inability of universities in Nigeria to employ appropriate pedagogy initiatives in the transmission of entrepreneurship education including presentation, case studies, internships and content discussions, respectively (Alabi, Famakinwa & Ogunjimi, 2017; Fuster, et al, 2019). This argument forms the crux of this paper. A follow up to this argument is the fact that the global business environment that has since been disrupted by the fallout of the Covid-19 global pandemic requires graduates with social venture creation skills who must be learn through modern entrepreneurship pedagogy routes in order to address the high spate of graduate unemployment and improvement in social development. Essentially, the paper seeks to understand the importance of pedagogy techniques and course content in the teaching of entrepreneurship education, the nexus between social entrepreneurship pedagogy and students' entrepreneurship drive, and the impact of Covid-19 on social venture creation.

The literature is inundated with entrepreneurship studies in Nigeria. The collection of these studies (Osunde, 2016; Chinonye & Akinlabi, 2014; Sule, Alinno & Ikwegbem 2013; Adelekan & Dansu, 2016) has only investigated issues bordering on the importance of entrepreneurship to economic development. Other similar studies include the relevance of entrepreneurship education as a tool for national transformation and graduates' unemployment (Afolabi et al., 2016; Onuwa, 2016; Adekunle & David, 2014). However, in the canon of entrepreneurship studies, hardly any study has interrogated the nexus between social entrepreneurship pedagogy and students' social venture creation in institutions of higher learning, with a focus on the interplay of the on-going Covid-19 global health pandemic. Consequently, the choice of Lagos State University is justified with its presence in a metropolitan city with high rates of graduate unemployment (National Bureau of Statistics-NBS, 2018). The core contribution of this paper is the paucity of research on social entrepreneurship

⁴ NUC is a governmental commission overseeing the activities of universities in Nigeria

pedagogy and social venture creation in an era of a global health crisis in Nigeria. By interrogating this narrative, the study hopes to provoke a nuanced discourse of social entrepreneurship pedagogy for social venture creation among Nigerian students, taking into account the continued loss of graduate jobs conveyed by the Covid-19 global health pandemic.

2. LITERATURE REVIEW

2.1 CONCEPTUALISING ENTREPRENEURSHIP

The conceptual clarification of entrepreneurship has remained unclear with different definitions emerging from management and entrepreneurship literature (Chinonye & Akinlabi, 2014; Moon et al, 2020). This apparent challenge has remained an academic problem for scholars and policymakers in the management and entrepreneurship research niche (Malebana & Swanepoel, 2015). The conceptual understanding of entrepreneurship comprises a mix of the roles of economic, cultural and social institutions as fundamental push that propels individuals towards becoming an entrepreneur (Boohene & Agyapong, 2017). However, a large number of entrepreneurship studies have shown a robust focus on the economic component of entrepreneurship (Sule, Alinno & Ikwegbem 2013; Adelekan & Dansu, 2016; Chinonye & Akinlabi, 2014). Importantly, entrepreneurship explicates an individual's capability to create something valuable through the deployment of both human and material resources. This working definition has engendered many descriptors of an entrepreneur as an innovator, inventor and crucially as someone who rides on risks for the maximisation of opportunities.

The concept of entrepreneurship is understood as an initiator of economic growth. In this epoch of changing economic order of Covid-19, this process is connected with an individual's capability to adapt successfully to the continuous and unceasing economic revolution (Audretsch, Kuratko & Link., 2016). This argument no doubt supports the imperative to stimulate and develop entrepreneurship among the student population for the promotion of social venture creation. According to Fayolle and Gailly (2015), the concept of entrepreneurship explains the identification of opportunity, venture creation and development. This assertion is in tandem with one of the most accepted definitions of entrepreneurship as a venture for personal development, initiative taking, self-reliance and being creative. In alignment with the role of the universities in entrepreneurship development, researchers have argued that entrepreneurship is not teachable and therefore goes beyond the competencies of universities to instil entrepreneurial traits in students (Agbonlahor, 2016; Capella-Peris et al, 2020).

In contrary, however, Sarıkaya and Coşkun (2015) acknowledged that entrepreneurship is teachable and can be learned through entrepreneurship education. Consequently, the position of this paper is to advance this discourse by arguing for the importance of entrepreneurship pedagogy as a fundamental pathway through which entrepreneurial intentions can be learnt for social venture creation. Boohene and Agyapong (2017) conceptualised entrepreneurship as a self-starting process of consistent venture creation by persons who are on a path of major risk through the investment of time and other material processes for the creation of values and wealth. Malebana (2017) explains an individual's capability and aspiration to chase a business venture, build opportunity around it and manage same for profit

maximisation or for societal aids. Put together, the above explanations clearly uphold the general perception that the venture of entrepreneurship possesses more meaning than the ability to create a venture. In other words, entrepreneurship can be linked to an individual's ability to effectively identify and solve human and societal needs.

In the broad canon of academic literature, the concept of entrepreneurship is linked to an individual's possession of certain human abilities, including social and psychological qualities as fundamental to the success of any entrepreneurial venture (Rucker & Galinsky, 2016). This study, however, employs psychological and social attributes as important criteria for understanding students' social entrepreneurship pedagogical initiatives for positive social venture creation in this era of a global health crisis. Therefore, an understanding of entrepreneurship within the context of pedagogy will not only afford students entrepreneurship start-up information, but also more to understanding the importance of entrepreneurship pedagogy for social venture creation, in this changing economic order provoked by the Covid-19 global health pandemic.

2.2 SOCIAL ENTREPRENEURSHIP PEDAGOGY AND VENTURE CREATION

The concept of social entrepreneurship is no doubt a new concept interrelated to the traditional concept of entrepreneurship (Sarikaya & Coşkun, 2015; Sahasranamam & Nandakumar, 2020). More like the concept of entrepreneurship, social entrepreneurship is also not excused from the puzzle of uniformity in its definition and clarification. In other words, while the focus of traditional entrepreneurship includes the ability to identify, evaluate and examine opportunity for personal wealth, the emphasis of social entrepreneurship is tied to the recognition and appraisal of opportunities for social value creation (Agafonow, 2014). This perspective clearly supports the contention that social entrepreneurs are positioned to solve social problems or to address gaps from social needs. In relation to entrepreneurship pedagogy, the overall intention is to rouse students' business intentions that seek to address social needs with a positive outlook for the growth and development of the society (Agafonow, 2014). Therefore, social entrepreneurship pedagogy is conceptualised broadly as the drive to educate students on social projects with the intention of creating social value for the improvement of society (Adetunji & Ladanu, 2016; Gupta, et al, 2020).

According to Tracey and Phillips (2007), social entrepreneurship pedagogy needs to be disseminated to incorporate vital subjects that students undertake, with the mandate to ensure students are engaging with on-the-job learning for the acquisition of practical experience for appropriate social venture creation. In spite of the diverse range of studies on curriculum and scope of social entrepreneurship pedagogy, a unique strand of social entrepreneurship discourse should be considered in Nigerian universities as enablers of social venture creation (Adelekan & Dansu, 2016). This was rightly supported by Gundlach and Zivnuska's (2010) argument that to appropriately engender university graduates with effective social venture skills, the use of one-on-one teaching and social entrepreneurship learning must be adopted in place of the traditional lecture notes platform. As argued, this process engenders a sense of motivation in students and arouses their sense of passion towards social venture creation (Gundlach & Zivnuska, 2010). Therefore, the need for the positioning of Nigerian universities to stimulate and encourage students' social venture creation through social entrepreneurship pedagogy initiatives remains fundamental to national development.

Pedagogical methods remain fundamental in any learning procedure. There have been several debates on whether social entrepreneurs are made or taught. The debate of this study is the argument that social entrepreneurship is taught through appropriate pedagogical techniques. The crux, therefore, is the departure from *how* it ought to be taught to *what* ought to be taught. Some of the known pedagogical techniques employed in social entrepreneurship teachings include discussions, internships, group projects, presentations and formal lectures, among others (Yusoff, Ahmad & Halim, 2016). However, it is not clear whether Nigerian universities are well equipped with these techniques to engender students with social venture creation intentions. This assertion corroborates the haphazard design of many Nigerian universities' curricula lacking social entrepreneurship contents (Adelekan & Dansu, 2016; SatarMir & Ghadah, 2021).

The formation of business plans, lectures and case studies has been repeatedly argued as the most consistent pedagogical initiatives required for the stimulation of students' social venture creation intentions (Shepherd, 2015). In contrast, Uzunidis, Boutillier and Laperche (2014) recommend diverse pedagogical approaches to advance students' social venture creation, especially in line with the aim of the teachings. Clearly, with the pedagogical intention of increasing students' understanding of the concept of social entrepreneurship, a contending argument in the management and entrepreneurship literature has continued to advance the use of open channels in recent times, including the media, seminars and lectures as most suitable (Anderson, 2015). The nub, however, is the need for students' transition from job seekers to becoming social entrepreneurs, especially with the present disruption of the global labour market by the emergence of the Covid-19 health pandemic.

The hypothesis of Yusoff, Ahmad and Halim (2016) explain the development of social entrepreneurship pedagogy among students as an imperative for national development. The pedagogical teaching process allows for the merger of knowledge and acquirement of skills. Therefore, the role and significance of social entrepreneurship pedagogy in the university become sacrosanct in terms of ensuring skills advancement, a process that can lunge students into social venture creation intentions (Bae et al., 2014). Supporting this with the current Covid-19 health crisis and increased loss of paid employment, the need for Nigerian universities to appropriately develop a robust social entrepreneurship pedagogy framework through course curriculum and contents signposts a way towards creating social entrepreneurs with appropriate social venture skills. In other words, the world is not only in dire need of effective young leaders and social entrepreneurs, but more to a functional and supportive educative system that can act as agent of social transformation by rousing youth and university students' intentions in social entrepreneurship.

3. THEORY OF PLANNED BEHAVIOUR

The theoretical argument of this article is firmly rooted in the theory of planned behaviour. On its origin, the theory was initially developed by Ajzen (1985) and later reviewed by Ajzen and Madden (1986). The theoretical assumption of the theory was to understand an individual's attitude, behaviour and intentions (Ajzen & Madden, 1986). Ajzen (2001) argued that the theory seeks to understand the nexus between intentions, attitudes and behaviour by establishing the proposition that people are conventionally rational and make systematic utilisation of data at their disposable for creative intentions and positive behavioural outcomes. The theory explicitly explains that intentions greatly

depend on attitudes towards the behaviour and suggests that an intention to carry out a specific task is likely to increase an individual's behavioural control. This appropriately means that an individual is likely to commence a new venture on the off-chance that they achieve it with the expectation that the action will engender socially complacent outcomes. In the discourse of planned behaviour for social entrepreneurship pedagogy outcomes, researchers have found incredible accomplishments applying the intention-based approach as a robust mechanism for effective social venture creation (Bae et al., 2014).

The different components of the theory of planned behaviour include intentions, attitudes and observed behavioural control (Anderson, 2015). For instance, behaviour is the noticeable response to a specific disposition or object, while intention explicates a decent indicator of intended behaviour (Bae et al., 2014). To be sure, the interaction between behaviour and intention can be affected by interferences of the behaviour or by the lack of skills (Malebana, 2017). In other words, an individual's intentions are susceptible to supposed behavioural control, attitude and past behaviour. It is sufficing to argue that intentions are conjectured as a move between the evaluative and cognitive components of behaviour and attitude. Furthermore, intentions completely intercede the effect of attitudinal variables in order to ensure no immediate way from attitude to behaviour can be assumed (Lackeus, 2014). Making sense from the above different conjectures, it can be estimated that intentions are explicit consequences for social entrepreneurship pedagogy and social venture creation; however, this estimation can be ascertained through three distinct variables, namely an emphasis on the utilisation of attitude towards a specific behaviour (ensuring precise and appropriate pedagogical attitudes are stimulated towards the anticipated social venture creation behaviour); subjective norms (having a robust belief about the decision regarding effective social venture creation); and professed behavioural control (the opinion about social entrepreneurs' competence to execute that specific behaviour).

Creating social venture through social entrepreneurial pedagogy initiatives represents a planned behaviour through the instillation of certain attitudes, intentions and appropriate behaviour. However, intentionality remains fundamental towards the realisation of a successful venture creation. For students, social entrepreneurs' intentions with respect to a behaviour represent a fundamental factor to understanding the social venture creation process. Despite the theory of planned behaviour being criticised for too much reliance on cognitive explanation of behaviour and attitude, the theory has been able to situate entrepreneurship discourse appropriately in the management and entrepreneurship literature.

4. METHODOLOGY

The interpretivist philosophical assumption was employed as the research philosophy to understand the nexus between social entrepreneurship pedagogy and social venture creation. The interpretivist research philosophy supports the assumptions of the qualitative research approach to deeply understand and explain social entrepreneurship pedagogy as a mechanism for students' social venture creation amidst the ongoing global health crisis (Covid-19). The design of the research follows with the proposition of the exploratory design in order to advance the limit of research chasm known about social entrepreneurship pedagogy and students' social venture creation in the Covid-19 era (Sekeran

& Bougie, 2016). The population comprised a total number 22 final-year students recruited from the Faculty of Management Sciences of the Lagos State University, Nigeria. This sample size appropriately corroborates the assumption of the qualitative research approach where a small number of a sample is required for the exploration of a research problem (Shields & Rangarajan, 2013). The focus on selected final-year students is justified with their labour market readiness, which has been made worse by the Covid-19 pandemic.

Students were recruited purposively and conveniently. Firstly, selected final-year students were initially targeted and recruited purposively for this study. This is justified to ensure that only students with the appropriate knowledge of social entrepreneurship pedagogy as a tool for venture creation are recruited. On the use of convenience, after having purposively identified relevant final-year students, it was ensured that only students who are conversant with the nature and timing of the study are finally recruited as population for the study. The study employs the semi-structured interview type in provoking qualitative data from all respondents and to make room for the uncovering of supplementary questions and responses (Quinlan, 2011). In line with the need to observe all pharmaceutical interventions against the spread of Covid-19, all interviews were conducted through telephonic interview and all responses were appropriately recorded⁵.

An interview guide was employed to ascertain uniformity in all of the questions and responses supplied. The duration of the entire interview process lasted four months. The different interview responses were represented with a pseudonym⁶ The NVivo (v.12) qualitative software was employed to identify themes from the transcribed interviews. Having identified the different themes, the qualitative content analysis was further employed to make sense of the data by provoking critical analysis in explaining the nexus between social entrepreneurship pedagogy and social venture creation in the Covid-19 era. All ethical considerations were fittingly followed in the conduct of the study and reporting of major findings. All participants were briefed about the aim of the study and their consent was appropriately granted prior to the commencement of the study. This was followed by ensuring that the anonymity of all participants was protected and the secrecy of all information granted.

5. ANALYSES AND RESULTS

5.1 Pedagogy techniques and course contents

The emphasis on the need for a robust and appropriate use of pedagogy techniques and course content in entrepreneurship education in higher institutions of learning cannot be over-stated. The perception shared by the majority of the participants reflects the need for a state of emergency in many Nigerian universities, especially public institutions, in the use of appropriate pedagogy techniques as a medium of teaching entrepreneurship education among the student population. For instance, it was shared that

⁵ The telephone numbers of all identified and selected final-year students were requested by the researcher and different times were agreed on wherein the interviews were conducted.

⁶ IDI-in-depth interview, P-participant

the most commonly used pedagogy techniques, namely discussions, internships and presentations in teaching entrepreneurship education, are sparingly or not utilised. Other important pedagogy techniques sighted include lectures, case studies and seminars. While lectures were unanimously agreed to be used in the teaching of social entrepreneurship education, the participants avert that seminars, case studies and internships are hardly employed. Again, this revelation explains the conditions of Nigerian public universities where entrepreneurship education is hardly prioritised through effective and quality entrepreneurship pedagogy techniques. One of the respondents explained how building students' social entrepreneurship skills for venture creation will hardly be realised when effective and qualitative pedagogy initiatives and techniques are hardly utilised.

I am aware of how entrepreneurship education are being taught in other climes. They utilize practical's and monitored internship where students learn real-time. But in our universities in Nigeria, it is the contrary. It is a pity we do not have the right blend of pedagogical techniques to convey and transmit these teachings. We just do not have simple pedagogy techniques here like case studies and internships that tends to builds students business mind-sets. Believe me, these things are affecting the social entrepreneurship mind-set of students and the consequences are poor social venture creation and increase in unemployment rate (IDI/P4/2020).

Another respondent shared his experience of the university's inability to employ appropriate medial tools in teaching entrepreneurship education. This analysis was depicted as a signal that the country is not yet ready to build an army of students with social venture creation skills through quality utilisation of pedagogy techniques.

I can conveniently tell you that while other countries are moving on with teaching through multimedia platforms during the peak of the covid-19, most Nigerian universities, especially our own university here paused all academic related work. You can imagine that universities here cannot employ virtual teaching. This is a testament that the country is not yet ready to build students with qualitative social venture skills through effective pedagogical techniques (IDI/P8/2020).

Case studies have been proven as one of the most efficient pedagogical techniques used in teaching social entrepreneurship. Its practicability ensures that students have on-the-desk learning experiences and transfer such learning skills to other social entrepreneurs. The majority of the participants agreed that having a case to work with is likely to upturn their social entrepreneurship mind-sets and intentions. However, the analysis shows that the university's failure to employ case studies in the teaching of social entrepreneurship has greatly and negatively affected students' social entrepreneurship skills.

I can tell you that we do not employ case studies in our teachings and we are missing out on practical learnings that are vital for social entrepreneurs. The importance of real life situation that should be presented through case studies where students can have the opportunities to interact with one another is missing. Majority of us are lacking these social entrepreneurship

skills because the university does not employ the pedagogy techniques of case studies (IDI/P13/2020).

The Nigerian educational system has long been battling with various challenges. One of the pertinent challenges related to this study is the concern of poor educational contents and curricula. The consequential effect of this problem on students' social entrepreneurship education has long remained an ongoing debate for policymakers and other allied educational practitioners. For instance, with the fast rise in the loss of paid employment as a result of the changing economic order, it is expected that universities will revisit their course curricula and tailor same towards students' self-sustainability. The majority of the students decried the absence of appropriate course contents on entrepreneurship education. This narration was explained as over-reliance of universities of higher learning on theoretical teachings, rather than practical teachings. As noted by the participants, the global university education curriculum has shifted from theory-based to robust, practically reflecting an important pathway to building an army of students with sound social entrepreneurial mind-sets. One of the respondents clearly explains as follows:

Well, aside the issue of pedagogical techniques that have been mentioned, I can clearly tell you that the course contents and curriculum of many Nigerian universities are not designed to reflect the importance of entrepreneurship education in any way. You would see that we still have course content and curriculum designed since 1970's with the obvious economic around the economy, culture and politics. There is no way we can be talking of having students with sound social entrepreneurship mind-set and intentions when the teachings they undergo in the universities are not even in alignment with global trends and practices (IDI/P11/2020).

5.2 Social entrepreneurship pedagogy and students' entrepreneurial drive

The absence of social entrepreneurship education in many Nigerian universities has no doubt dwindled the entrepreneurial drive of many Nigerian students. This challenge supports the increasing rate of unemployment and poor social venture creation skills among the Nigerian youth. The majority of the participants acknowledged the debasing level of the quality of entrepreneurship education offered in most Nigerian universities, and expressed the impact on the drive for entrepreneurship intention and mind-set among the student population. Other respondents explained the sparsity of entrepreneurship faculty members who can adequately teach entrepreneurship education. Consequently, the non-availability of material resources for the effective transmission of entrepreneurship pedagogy is also signposted as a factor limiting students' entrepreneurial drive. The majority of the students reported the absence of an appropriate entrepreneurship department where entrepreneurship education is taught. Again, this challenge reinforces the failure of the NUC in its commitment towards revitalising Nigerian universities' systems into an entrepreneurship hub. One of the respondents shared his views below:

The state of Nigeria education is so poor and obviously not in tandem with international best practices. In many Nigeria universities, you would hardly see entrepreneurship education taught and in others where entrepreneurship education is taught, it will be done haphazardly.

You can see that obviously this cannot provoke the desired entrepreneurial drive such that we can be talking about social venture creation skills on the part of students (IDI/P2/2020).

Another participant adds that there have been instances where some members of staff are presented as entrepreneurship faculty members even without having the prerequisite of entrepreneurship education and background. It was explained that in such situations, the majority of the student population often missed out as a result of the sparsity of faculty members.

Building a strong students entrepreneurship drive encompasses several procedures and one of them I think is to have competent hands on desk who can affectively do these biddings. I can tell you that majority of the faculty members you see around teaching entrepreneurship education do not have strong academic experience in entrepreneurship. This is not only happening in our school here, but majority of the Nigerian universities. So it is hard to see a case where social entrepreneurship pedagogy can transit to students drive in social entrepreneurship venture (IDI/P14/2020).

Another sentiment was shared that the university does not have a standing entrepreneurship department. This was chronicled as one of the pitfalls towards the realisation of students' entrepreneurship drive. This position neatly exposes the poor responsibilities of the NUC whose task it is to manage and coordinate the affairs of Nigerian universities, especially in the area of ensuring appropriate entrepreneurial syllabi are taught for social venture creation skills and development among the students. The absence of a recognised entrepreneurship department in many Nigerian universities signposts hindrances to developing students' entrepreneurship drive for social venture creation.

One thing I am sure of is that the Nigerian government must re-strategize about developing entrepreneurship education in Nigerian universities. We cannot be talking about having students with entrepreneurship social venture creation skills without first constituting a working department that students will go through for entrepreneurship pedagogy. In my school for instance, we do not have a singular department that takes care of entrepreneurship education and it is expected that students will be doing poorly in social entrepreneurship and social venture creation. So I think the first thing should be done first (IDI/P3/2020).

5.3 Global health pandemic and social venture creation

The decreasing performance of global economies has no doubt become more evidential with the impact of the Covid-19 health pandemic in the area of consistent job loss and extinction of industries and organisations around the globe. In Nigeria, the fallout is a number of economic difficulties that have incapacitated the production and employment capacities of many industries. For instance, it was argued that the continuous retrenchment in both the industrial and services sectors of the Nigerian economy has provoked many students' entrepreneurship and social venture creation drive. The argument is therefore that since the Nigerian government has failed in its responsibility to provide jobs for the increasing number of graduates, the consequence of the Covid-19 global pandemic on graduates' jobs has stirred students' entrepreneurship spirits for social venture creation.

Indeed, the current events have assured that embracing entrepreneurship by the young population remains the only viable approach to tackling the increasing rise of graduate employment in Nigeria, and the globe, by extension. Importantly, the question that follows this is how students will transform the gains of the Covid-19 health pandemic into effective use for social venture creation? Or, how would the menace of graduate unemployment be tackled through students' active involvement in social venture creation? The answers to these questions cannot be distanced from government and appropriate university administrators' urgent and robust application of entrepreneurship education for students' viable social venture creation skills. One of the students reported as follows:

The covid-19 global pandemic has dealt a big blow on graduate jobs and employment in general. What used to be the problem of unemployment before the emergence of the covid-19 global pandemic has now taking another dimension with more jobs being lost since the pandemic. For me, I think what we need to do as students is to look beyond the pandemic and see how we can do things for ourselves since the envisaged graduate are no longer there. We must therefore endeavour to look away from paid employment and strive for self-dependent in order to survival in this critical times (IDI/P10/2020).

The majority of the participants also express concerns regarding students' failure to convert the disadvantages of the Covid-19 global pandemic into advantages by embracing entrepreneurship at the expense of low or non-existing graduate jobs. For instance, two of the participants explained as follows:

The argument is that there is a need for students to seize the opportunity in this covid-19 health pandemic and create a venture for themselves. The fact is that the economy cannot be robust any time soon and we have acknowledged this. We need to shift our mind from job dependent to job creation by engaging our intensions and mind-set in social venture creation skills. We need this as a matter of urgency, otherwise the country unemployment rate will continue to rise (IDI/P10/2020).

The government also needs to play a critical role in ensuring the ovid-19 health pandemic also stimulate some form of economic benefits to Nigerian youth and the economics of the country as a whole. The government must set up measures that will ensure students are giving the opportunity to transmit the gains of the pandemic to social venture creation skills. This is important and fundamental (IDI/P8/2020).

6. DISCUSSIONS AND CONCLUSION

The prevailing Covid-19 pandemic has no doubt stimulated a new research paradigm to understand students' social venture creation in such a way that the debilitating effects of the global health pandemic can become less on graduate jobs. Consequently, this paradigm shift is the need to accentuate the importance of social entrepreneurship pedagogy as a veritable tool. Developing students' social venture creation has been argued as an important measure for encouraging entrepreneurship venture, sustainability and economic development. Therefore, the need for students to have a comprehensive understanding of entrepreneurship and social venture skills cannot be over-emphasised with the right pedagogical initiatives.

As shown through the findings, discussions, internships, case studies and seminars were reported, although with sparse evidence of their appropriateness in the major pedagogical initiatives employed in the transmission of social entrepreneurship education to students. In terms of the appropriateness of course content, findings showed the application of poor and ambiguous course content in the teaching of entrepreneurship education. This finding is a reflection of the current situation in most of the Nigerian public universities, where not only outdated course content is employed, but more disappointing is the non-alignment of the course and instructions with global trends of entrepreneurship. These findings corroborate existing arguments in the literature on the importance of pedagogy initiatives and appropriate course content in entrepreneurship education (Lackeus, 2014; Uzunidis, Boutillier & Laperche, 2014; Sarıkaya & Coşkun, 2015).

The findings also explicate poor handling of entrepreneurship education in universities of learning, non-availability of material resources for the transmission of entrepreneurship education, and the sparsity of entrepreneurship departments in major higher institutions of learning as major hindrance to effective student social venture creation skills. Importantly, it is instructive to explain that the Nigerian case is no doubt a testament of a society whose interest is not in the development of students' entrepreneurship for social and economic transformation. For instance, it is on record that the Nigerian state is one of the African countries with the lowest education budget as proposed by the United Nations. Therefore, the low desire for investment in students' social creation ventures through appropriate social entrepreneurship pedagogy remains undoubted. A number of literature studies have reported similar results (Adetunji & Ladanu, 2016; Adelekan, Arogundade & Dansu, 2016; Anderson, 2015). In addition, major impacts of the economic downturn of the Covid-19 global health pandemic on students' social venture creation were uncovered. For instance, the study showed that the continued retrenchments in both the service and industrial sectors have stirred students' entrepreneurship and social venture creation intentions with increases in students' self-employment mind-set after graduation (Sule, Alinno & Ikwegbe, 2013; Rucker & Galinsky, 2016).

In recognition of the importance of higher education, the study concludes that social entrepreneurship pedagogy must be robustly embraced. This, it is argued, is to engender a rich discussion towards addressing the problem of youth unemployment by encouraging students' entrepreneurship intentions. Discourse of entrepreneurship in Nigerian higher education institutions must therefore incorporate and reflect more practical approaches through the utilisation of effective pedagogy initiatives. The study also concludes on why the ravaging impact of the covid-19 health pandemic continues to affect jobs with consequential effects on graduate jobs, the need to encourage students' social venture creation through fitting pedagogy measures cannot be over-emphasised. Overall, the study recommends a more proactive approach on the part of the Nigerian Ministry of Education in ensuring appropriate entrepreneurship pedagogy is introduced in Nigerian institutions of higher learning for effective student social venture creation initiatives. The implication is the need to ensure students are led into venture creation and self-employment initiatives for economic sustainability and development, particularly in this era of labour market volatility.

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GREEN SUPPLY CHAIN MANAGEMENT PRACTICES AND ENVIRONMENTAL PERFORMANCE IN THE BEVERAGE INDUSTRY OF SOUTH AFRICA

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ABSTRACT

International competitiveness and the implementation of new supply chain strategies have placed the beverage industry under pressure. The aim of this study was to investigate the influence of green supply chain management practices on environmental performance in the beverage industry of South Africa. The study adopted a quantitative method and used a survey questionnaire to collect data from 373 supply chain management practitioners employed by beverage companies in South Africa. The information collected was analysed using the Analysis of a Moment Structures (AMOS) version 25.0 and Statistical Package for the Social Sciences (SPSS) version 25.0. A confirmatory factor analysis was used while structural equation modelling was applied to test the relationship between constructs. The findings indicate that the implementation of green supply chain management practices, namely, eco-design, investment recovery and green purchasing positively affect environmental performance. The study theoretically presents supply chain management practitioners within the beverage industry with helpful insights on key issues to be addressed in order to improve their supply chain strategies and also the environmental policies. Therefore, the study is important to supply chain management practitioners in the beverage industry, who seek to enhance their environmental performance.

Keywords: eco-design; investment recovery; green purchasing; environmental performance

1. INTRODUCTION

In the past couple of decades, the integration of organisational performance and environmental initiatives has gained international attention (Afum, Agyabeng-Mensah, Agyemang & Ahenkorah, 2020). According to Gelmez (2020), the environmental pollution and scarcity of natural resources are the main drivers of greening the organisation's entire supply chain. The purpose of this study was to explore the impact of green supply chain management practices on environmental performance in the beverage industry of South Africa. The implementation of green supply chain management in the supply chain activities is considered as an environmental innovation (Nduro, Opoku-Fofie & Peparah, 2016). It is important to understand the benefits and challenges involved in implementing green supply chain management, mainly for a manufacturing industry that is aimed at reducing pollution and waste (Sroufe, Tyan & Zimon, 2019). A study by Zulkefli, Mahmud and Zainudin (2019)

highlights that the internal supply chain is a vital area for environmental improvements, clean production, supplier integration and staff involvement. Jabbour, Mauricio and Jabbour (2017) indicate that a supply chain acts as a guiding framework to implement green practices. In this context, the green supply chain combines the suppliers, purchasing, production, distribution and customers (Islam, Karia, Lee & Tseng, 2017). According to Do, Nguyen, Le and Ta (2020), the combination creates a more sustainable supply chain which now comprises green purchasing from suppliers, green production, green packaging and distribution. In addition, green supply chain management has transformed the traditional supply chain to achieve best practice through remanufacturing processes and eco-efficiency (Ochiri & Onyinkwa, 2016). This study considers the three green supply chain management practices that Elahmady, Elsayed and Hamdy (2018) utilised: green purchasing, eco-design, and investment recovery. Alhamali (2019) found that integrating the green supply chain management concept to the supply chain concept directly limits environmental impact. For that reason, the study adopted the concept of green supply chain management as it recognises the importance of environmental sustainability throughout the supply chain within the organisation.

2. Problem statement

The beverage industry plays a major role in a developing country, particularly South Africa (Flanders, 2016). With the rapid growth of the beverage industry in South Africa, comes different mounting organisational and environmental related challenges that require effective supply chain strategies (Beverage Association of South Africa, 2016). Examples of such challenges include poorly skilled workers, supply chain disruptions, increased carbon tax and competition, which have affected the organisational performance (Folgore, 2018). Although past studies (Chen, Lee, Tsai & Wang, 2013; Tse, Matthews & Sato, 2016; Yang & Yang, 2018) have investigated the influence of green supply chain management practices in the beverage industry, a distinguished truth is that the studies have been based on Asian, American, European and Indian contexts. In the context of the South African beverage industry, evidence of studies that investigated the relation between green supply chain management practices and environmental performance in the context of the beverage industry is severely limited. For that reason, the present study was intended to attempt to address the above-mentioned research gap by examining the green supply chain management practices and environmental performance in the beverage industry of South Africa.

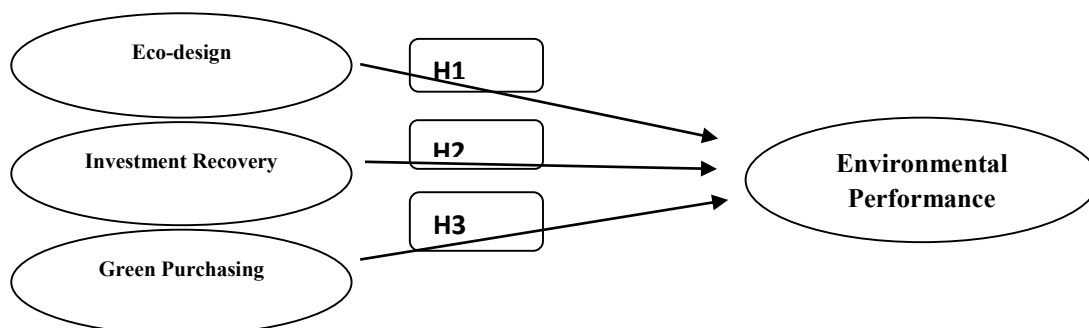


Figure 1: Conceptual model (developed by the researcher)

3. Hypothesis statements

Based on the above conceptual model, the following hypothesis statements have been developed.

H1. There is a positive relationship between eco-design and environmental performance in the beverage industry of South Africa.

H2. There is a positive relationship between investment recovery and environmental performance in the beverage industry of South Africa.

H3. There is a positive relationship between green purchasing and environmental performance in the beverage industry of South Africa.

2. LITERATURE REVIEW

This section discusses the concept of green supply chain management practices. In this study, the literature reviews mainly focused on the integration of green supply chain management practices into the beverage industry that improves the environmental performance.

Eco design

According to Lai, Sarkis and Zhu (2019), eco-design is an internally focused green supply chain management practice that enhances the environmental attributes of the products with modest assistance or interface with external organisations. It requires that manufacturers design products that lessen consumption of power and resources and ensure a possible recycle, reprocess and revival of parts and resources, while reducing harmful resources used in the manufacturing process (Khan & Qianli, 2017). Moreover, eco-design seeks to integrate environmental aspects into product design thoroughly, while at the same time maintaining all well designed and safety requirements for users or consumers (Choi & Hwang, 2015). Eco-design is initiated due to environmental impact at each stage of the product design to determine the energy to be consumed, waste generated and the type of materials to be used (Lee & Lim, 2020). A study conducted by Das (2018) revealed that eco-design positively influences environmental performance based on the product innovation implemented. This study includes eco-design because it combines environmental aspects into the design development of products. In this context, eco-design plays a vital role in the manufacturing process to ensure that products contain used or recycled components.

Investment recovery

Investment recovery refers to selling of used resources and the fragmenting and selling of excess capital equipment by the company (Kamolkitiwon & Phruksaphanrat, 2015). Furthermore, Ali, Bentley, Cao and Habib (2016) indicate that investment recovery can be seen as the deployment of inoperative materials for enhanced purposes for the company. According to Huang, Liu, Zhang and Zhao (2016), remanufacture and reverse logistics are some of the factors that lead to investment recovery. Huang and Li (2017) highlight that government regulations force organisations to adopt investment recovery, which encourages them to sell idle assets to avoid waste and environmental impacts. Karimi and Rahim (2015) argue that internal environmental and sustainable approaches lead

to investment recovery, resulting in the sale of overloading scrap, inventories and capital equipment. In practice, investment recovery promotes waste reduction, reuse and recycling of used products and at the same time minimises manufacturing costs and maximises profit. A study conducted by Habib and Bao (2019) found that investment recovery can positively influence environmental performance. It is through reverse recovery that excess assets can be converted into revenue. In addition, the organisation can benefit from the recycled materials and selling of unused assets, which saves cost and generates revenue in the process (Cousins, Lawson, Peterson & Fugate, 2019).

Green purchasing

Sundarakani, Vel and Younis (2015) define green purchasing as an environmental purchasing plan that aims to make sure that purchased products and material meet with environmental objectives set by the purchasing company. Green purchasing prevents and reduces waste by considering environmental impacts when making decisions on product acquisition from the supplier (Chin, Tat & Sulaiman, 2015). Green purchasing has encouraged companies to consider evaluating suppliers based on their environmental performance prior to taking any procurement decisions (Das, 2018). Essentially, by integrating the green standards into purchasing, organisations can provide design specifications to suppliers for parts, materials and equipment that support environmental requirements (Asim, Manzoor & Riaz, 2020). Abdel-Baset, Chang & Gamal (2019) found that green purchasing has a positive relation with environmental performance. This study, therefore, considers the importance of green purchasing in the supply chain. It is through green purchasing that the organisation can eliminate waste and reduce costs with the cooperation of suppliers. Importantly, environmental impact can be minimised in an inbound supply chain, which includes environmentally friendly raw materials (Le, 2019).

Environmental performance

Abdallah and Al-Ghwayeen (2019) define environmental performance as the degree of decline of substances in the manufacturing process that reduces environmental impacts caused by companies. According to Hutomo and Marditama (2020), environmental performance is more often concerned with saving power and reducing emissions and waste. However, environmental performance relates to the capability of manufacturing plants to lessen air emissions and solid wastes and the capability to reduce consumption of harmful materials (Esfahbodi, Watson, Zhang & Zhang, 2016). Initiating green supply chain management helps improve efficiency among the organisation and suppliers to minimise waste, achieve cost savings and enhance environmental presence (Kersten & Saeed, 2019). Green supply chain and green manufacturing has a positive impact on environmental performance due to increased environmental responsiveness (García-Machado & Martínez-Ávila, 2019). Collaborating with customers and suppliers to align environmental objectives with them plays a significant role in the success of environmental performance and improving environmental standards (Huo, Yu & Zhang, 2017). Environmental performance aims to enhance an organisation's performance, image, reduce waste and supply chain costs, and thus contributes to the study.

3. METHODOLOGY

A quantitative cross-sectional survey design was considered in this study in order to achieve appropriate, accurate and well-founded outcomes. Ethical issues were also considered, like obtaining a letter and getting consent from the university and the companies to collect the data.

Target Population

The target population for this study was restricted to managers and supply chain management professionals of beverage companies, which are registered, such as Kingsley Beverages, the South African Breweries, Tiger Brands, Little Green Beverages (Pty) Ltd and Amalgamated Beverages Industries in South Africa. Managers and supply chain professional were the target population because those are the employees who could understand and complete the questionnaire because of their knowledge and expertise. They also occupy senior positions in beverage companies. The population group comprised both female and male employees. Furthermore, this study adopted the quantitative research approach to test relationships between variables, which are internal environment management, investment recovery, eco-design, green purchasing, environmental performance and supply chain performance.

Measurement Instruments

The measurement instruments in this study were adapted from previous literature. The existing measurement items were adapted to suit this study. However, questions adapted were redeveloped. The adapted research constructs for this study were eco-design, investment recovery, green purchasing and environmental performance. Eco-design was measured using four-item scale adapted from Choi and Hwang (2015). Investment recovery used a four-items adapted from Esfahbodi *et al.* (2016) and Huang and Li (2017). Green purchasing was measured using a five-items adapted from Sundarakani *et al.* (2015). Lastly, environmental performance was measured using a five-items adapted from Huo *et al.* (2017). Adapting measurement instruments was important because it enabled accurate translation of the items in this study. For this reason, the researcher adapted validated measurement instruments in order to obtain accurate findings. In this present study, the reliability of the instruments was assessed using Cronbach's Alpha and Composite Reliability. Furthermore, the five-point Likert scales were used because it was convenient for respondents to understand questions asked while filling in the self administered questionnaires. The researcher created the questionnaire using the adapted measurement instruments in order to obtain the primary data. Data were collected using a self-administered questionnaire. In this context, the researcher made used a drop and collect method, since the hard copy self-administered questionnaires could be completed without the researcher being present. The questionnaires were administered from the month of January to April 2019. The supply chain management practitioners and four field assistants helped to collect data from various beverage companies over a period of three months. In this study, a pilot test was conducted. The pilot testing was conducted using the adapted data collection instruments. The researcher used the pilot testing to check the validity and reliability of the adapted instruments prior to the main study. In addition, this study undertook a pilot survey test with a view to illustrate that the adapted instruments are understandable, appropriate and practical. Based on the outcome, the pilot survey test results confirmed that the adapted data collection instruments did not contain any confusing items and the respondents found it easy to complete. The questionnaire consisted of six sections. A five-

point Likert scale was used. This scale indicated 1=Strongly disagree, 2=Disagree, 3=Moderately agree, 4=Agree and 5=Strongly agree. This study used a five-point Likert scale because it is less time consuming and can reduce the frustration level of respondents. The respondents can easily express how much they disagree or agree with the question. Out of 450 distributed questionnaires, 373 questionnaires were returned and completed, while 77 questionnaires were not returned. Therefore, this study’s response rate for the questionnaires was 83 percent, which indicated a reliable, valid and good response rate for data analysis. This response rate was reliable for analysis and interpretation because it is above the 50 percent minimum threshold mentioned by Nguegan Nguegan and Mafini (2017).

4. TESTS OF MEASURES AND ACCURACY ANALYSIS STATISTICS

Reliability results

In the current study, reliability was tested through Average Value Extracted (AVE), Cronbach’s Alpha (Cronbach’s α) and Composite Reliability (CR).

Table 1. Accuracy analysis statistics

| Research constructs | | Descriptive statistics | | Cronbach’s Alpha | | CR value | AVE value | Factor loading |
|---------------------------|-----|------------------------|--------------------|------------------|----------------|----------|-----------|----------------|
| | | Means | Standard deviation | Item-total | α value | | | |
| Investment recovery | IR1 | | | 0.882 | | | | 0.908 |
| | IR2 | 3.775 | 3.247 | 0.907 | 0.958 | 0.958 | 0.853 | 0.929 |
| | IR3 | | | 0.902 | | | | 0.927 |
| | IR4 | | | 0.903 | | | | 0.932 |
| Eco-design | ED1 | | | 0.889 | | | | 0.916 |
| | ED2 | 3.796 | 3.144 | 0.908 | 0.959 | 0.958 | 0.853 | 0.935 |
| | ED3 | | | 0.915 | | | | 0.939 |
| | ED4 | | | 0.878 | | | | 0.905 |
| Green purchasing | GP1 | | | 0.938 | | | | 0.949 |
| | GP2 | | | 0.951 | | | | 0.960 |
| | GP3 | 3.817 | 4.189 | 0.955 | 0.980 | 0.980 | 0.911 | 0.968 |
| | GP4 | | | 0.944 | | | | 0.956 |
| Environmental performance | GP5 | | | 0.931 | | | | 0.941 |
| | EP1 | | | 0.788 | | | | 0.854 |
| | EP2 | | | 0.753 | | | | 0.827 |
| | EP3 | 3.824 | 3.007 | 0.777 | 0.890 | 0.890 | 0.669 | 0.837 |
| | EP4 | | | 0.714 | | | | 0.753 |
| | EP5 | | | 0.863 | | | | 0.926 |

Note: IR= Investment recovery; ED= Eco-design; GP= Green purchasing; EP= Environmental performance

Source: Developed by the researcher

In Table 1 the results indicate that the values of Cronbach’s α ranged from 0.890 to 0.959, while Composite Reliability ranges from 0.890 to 0.958. The values indicated are above the required threshold of 0.7 values as suggested by Solans-Domènech, Pons, Adam, Grau and Aymerich (2019). The average variance extracted values range between 0.669 and 0.911, which are above the recommended threshold of 0.5 as recommended by Hair, Risher, Sarstedt and Ringle (2019). In this study, the discriminant validity test was used to assess the correlations between the constructs. The correlation results are depicted in Table 2. Table 2 presents the results of the reliability descriptive statistics, Composite Reliability, Average Value Extracted, Cronbach’s test and factor loadings.

Table 2. Correlation results

| Research construct | IR | ED | GP | EP |
|--------------------|---------|---------|---------|----|
| IR | 1 | | | |
| ED | 0.345** | 1 | | |
| GP | 0.541** | 0.549** | 1 | |
| EP | 0.459** | 0.555** | 0.599** | 1 |

Note: IR= Investment recovery; ED= Eco-design; GP= Green purchasing; EP= Environmental performance

Source: Developed by the researcher

As shown in Table 2, the correlation values between constructs are all below the required threshold of 1.0, as recommended by Hair *et al.* (2019). Therefore, these results indicate a significant correlation between constructs.

Hypothesis testing results

Table 3 depicts the results of the hypothesis testing for this study.

Table 3. Hypothesis testing outcome

| Proposed hypothesis relationship | Hypothesis | Path coefficient estimates | P value | Decision |
|----------------------------------|----------------|----------------------------|---------|-------------|
| ED→EP | H ₁ | 0.370 | *** | Significant |
| IR→EP | H ₂ | 0.131 | *** | Significant |
| GP→EP | H ₃ | 0.281 | *** | Significant |

Note: IR= Investment recovery; ED= Eco-design; GP= Green purchasing; EP= Environmental performance

Source: Developed by the researcher

A research framework was conceptualised mainly to examine the relation between four (4) constructs, namely internal environment management, investment recovery, eco-design and green purchasing, and one mediator, which is environmental performance, with one outcome variable, which is supply

chain performance. Figure 2 illustrates the research framework of the hypothesised relations between constructs examined in this study.

5. DISCUSSION OF THE RESULTS

In this study, all path coefficient estimates are supported and significant at a level of $p < 0.001$. As portrayed in Table 3, all three hypotheses (H_1 - H_3) were supported. The following section discusses results for each hypothesis depicted in Table 3.

Results for hypothesis 1

Hypothesis one (H_1) stated that eco-design is positively related to environmental performance. After testing H_1 , a coefficient value of ($p=0.370$) was obtained. This means that eco-design has a significant and positive influence on environmental performance. The result confirms the existence of the relationship. These results are confirmed by Das (2018) who found that eco-design is positively related to environmental performance. Similarly, the results are consistent with past studies (Assumpção, De Souza Campos, De Sousa Jabbour, Jabbour & Vazquez-brust, 2019). These authors went further by saying that minimising the consumption of raw materials within the manufacturing process will make the organisation utilise reused and recycled component materials. Yang and Yang, (2018) further add that eco-design improves environmental performance at the early stage of product design by reducing waste materials and improving the efficiency of resource use.

Results for hypothesis 2

With reference to H_2 , the study hypothesised that investment recovery significantly influences environmental performance. Following the test of H_2 , a path coefficient value of 0.131 with ($p < 0.001$) was revealed. The results indicate that investment recovery is positively related to environmental performance. Furthermore, the results are supported and significant. In support of the results, a study conducted by Abdallah and Al-Ghwayeen (2019) and Esfahbodi *et al.* (2016) found that investment recovery is positively related to environmental performance. As suggested by Fang and Zhang (2018), investment recovery enhances environmental sustainability by reducing costs, waste and idle assets throughout the supply chain. Habib *et al.* (2020) also found that an organisation can generate revenue through selling and recycling idle assets. Thus, the results of this study reveal that perception of investment recovery has a positive effect on environmental performance in the beverage industry.

Results for hypothesis 3

A positive relationship was hypothesised between green purchasing and environmental performance. The results of H_3 indicate that there is a significant relationship between green purchasing and environmental performance ($p=0.281$; $p < 0.001$). The results indicate that green purchasing is positively related to environmental performance. The results concur with Yu, Zhang and Huo, (2017), who revealed that green purchasing has a positive relationship with environmental performance. For Balasubramanian and Shukla (2017), the implication of green purchasing results in better environmentally friendly materials from suppliers and minimisation of harmful materials. Altaf, Ali and Weber (2020) also found that purchasing eco-friendly materials from suppliers lowers the

environmental impact. Additionally, as stated by Lee (2019), partnerships developed through collaboration with suppliers in the manufacturing setting bring into being positive results and improve environmental performance. This is because the buyer and supplier depend on a strong positive relationship.

6. CONTRIBUTIONS OF THE STUDY

The results of this study provide both theoretical and practical contributions. From a theoretical viewpoint, the study contributes to the green supply chain management literature or research area of sustainability in the context of beverage companies in developing countries such as the Republic of South Africa. Accordingly, the results support the green supply chain management (GSCM) theory of Fang and Xu (2020) and point out the importance of the theory in the entire supply chain. In fact, this study confirms that internal and external stakeholders are the main drivers to implementing green supply chain management practices in the case of the beverage industry. It is, therefore, essential for supply chain management professionals, internal and external stakeholders to apprehend and know the importance of supply chain sustainability.

Practically, it is through investment recovery that beverage companies can sustain the environment and enhance the organisational performance, which is significant for the success of the environmental performance. Also, the study shows that eco-design enables companies to manufacture goods at a low cost whilst staying competitive and maintaining quality. This allows beverage companies to design products that integrate environmental aspects throughout the manufacturing, distribution, consumption and disposal of the product.

Furthermore, the study highlights that green purchasing is vital to improve environmental performance, because it aims to procure components or materials that meet the organisation's eco-friendly goals and environmental objectives. Additionally, green purchasing encourages an organisation to consider evaluating suppliers based on their environmental performance prior to taking any procurement decisions.

The present study showed that environmental performance is able to offer organisational benefits such as increased competitiveness, improved organisation performance and a better relationship with internal or external stakeholders. In most cases, collaborating with stakeholders such as suppliers, customers and distributors improves the environmental performance. Furthermore, in support of the results, it can be said that involving suppliers during the green purchasing process is vital in order to improve the environmental performance.

The study shows that supply chain management professionals in the beverage industry must implement the green supply chain management practices in order to enhance their environmental performance. Therefore, it could be concluded that the implementation of green supply chain management practices in the beverage industry leads to superior environmental performance.

7. LIMITATIONS OF THE STUDY

Due to strict access in the beverage industry depots and plants, questionnaires were dropped and

collected at a later stage. This meant that the researcher could not monitor how respondents for the current study completed the questionnaires. Moreover, a number of beverage companies were located in remote areas, which restricted accessibility. However, through persistence, access was granted to successfully compile this study. A total of 373 supply chain management professionals in the beverage industry completed the questionnaires from a target of 450. Although the study produced positive results, a sample size of 450 and above could have produced better results. This study adopted a quantitative method, which limited respondents from providing detailed narrative experiences.

8. IMPLICATIONS FOR FUTURE RESEARCH

Future researchers should try other methods of distributing questionnaires, such as electronic mailing, which could save them time and travelling costs. When conducting research on beverage companies, a larger sample size should be considered which would produce greater reliable and valid results. Additionally, future studies should make use of a qualitative method in order to obtain in-depth information into the influence of green supply chain management practices in the beverage industry. This study focused entirely on the beverage industry to describe the green supply chain management practices; future researchers using the same topic could extend the exploration to other major industries, as well as neighbouring countries.

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A FRAMEWORK OF ELECTRONIC CUSTOMER EXPERIENCE (E-CX) FACTORS NECESSARY FOR ENSURING CUSTOMER SATISFACTION OF E-COMMERCE RETAIL ORGANISATIONS

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ABSTRACT

The commencement of the Fourth Industrial Revolution and the COVID-19 pandemic has highlighted the rapid growth of electronic commerce (e-commerce). If an organisation is not able to conduct all or part of its business online in this context, the organisation may not survive in the future. Quintessentially, the primary objective of an organisation is to satisfy the needs of existing and potential customers, so as to retain its customers. Electronic customer experience (e-CX) encompasses the response customers have to any direct or indirect contact with an e-commerce retail organisation. The primary objective of this paper was to develop an e-CX framework that can support South African e-commerce retail organisations to improve customer satisfaction, consequently leading to greater customer retention. Accordingly, a qualitative study was conducted using secondary research to identify the e-CX factors impacting the customer satisfaction of e-commerce retail organisations. Four factors were identified as influential in ensuring customer satisfaction through e-CX: electronic word-of-mouth (e-WOM), user experience (UX), electronic quality (EQ), and electronic services rendered (e-services). The framework developed in this paper should be quantitatively tested to create a validated model and measuring instrument. The validated instrument can then be used by researchers for further testing or by e-commerce organisations wishing to increase customer satisfaction.

Keywords: Electronic commerce (e-commerce); electronic customer experience (e-CX); customer satisfaction; electronic word-of-mouth (e-WOM); user experience (UX); electronic quality (EQ); electronic services rendered (e-services); electronic business (e-business); online shopping

1. INTRODUCTION

The start of the Fourth Industrial Revolution (4IR), the global spread of the COVID-19 pandemic (Dwolatzky & Harris, 2020; Knott-Craig, 2020), globalisation, and continuous technological advancements have all highlighted the importance of electronic commerce (e-commerce) (Jimenez et al., 2019). E-commerce organisations are thus confronted with the challenge of remaining competitive with an increasing number of organisations entering the e-commerce industry. E-commerce has experienced rapid growth in shopping online, and online shopping has become an increasingly popular method of purchasing products (Yan et al., 2016). E-commerce is defined as the buying or

selling of products or services over open networks, such as the internet, which are delivered online or physically (Department of Telecommunications and Postal Services, 2016; Sridhar, 2017). As the 4IR evolves, if an organisation is not able to conduct all or part of its business online, it may not survive in the future (Knott-Craig, 2020). An organisation's principal objective is to satisfy the needs of its existing customers, with the intention of retaining customers and attracting new customers (Kotler & Armstrong, 2019; Tait & Roberts-Lombard, 2018; Yussoff & Nayan, 2020).

The objective of the current paper is to develop a framework of the possible electronic customer experience (e-CX) factors necessary for e-commerce retail organisations to influence their customer satisfaction, which may lead to greater customer retention. In order to contribute to the primary objective, the paper will provide a brief problem statement, the research methodology, and a literature review. In addition, the framework identifying the e-CX factors necessary for increasing customer satisfaction, and consequently customer retention, is depicted. Lastly, the limitations, conclusion and recommendations are presented.

2. LITERATURE REVIEW

Regardless of what industry an organisation is in or what products or services the organisation offers, the customer is one of the most important elements of the organisation, since customers create demand. Without a demand for a product or service, there is no reason for the existence of an organisation. The customer decision process is a graphical representation of the steps customers take on their journey to making a purchase decision, and it includes need recognition, an information search, evaluation of alternatives, the purchase decision, and post-purchase behaviour (Kotler & Armstrong, 2019; Kotler & Keller, 2016; Lamb et al., 2012; Stankevich, 2017). Kotler and Armstrong (2019) state that returning customers and a high customer lifetime value are critical to an organisation's success (Mostert, 2012). Customers are the foundation of any organisation because customers are indispensable for the organisation to grow in profitability and assist the organisation to acquire new customers by spreading positive reviews (Khadka & Maharjan, 2017; Rosenberg & Czepiel, 1984).

Post-purchase behaviour includes all activities and experiences that follow a purchase, and they represent the final step in the customer decision process (Kotler & Armstrong, 2019; Lamb et al., 2012). During this stage, customers rate their customer satisfaction with the experiences they had with the organisation, and they take further action based on the level of satisfaction (Kardes et al., 2011; Kotler & Armstrong, 2019). This leads to the post-purchase outcome of customer retention, as customer satisfaction with the organisation will significantly influence whether the customer will repurchase from the organisation or consider other products or services from the organisation's catalogue (Kardes et al., 2011; Kotler & Armstrong, 2019). As consumption is a dynamic process, the post-purchase outcomes of customers are critically important to an organisation. Individuals continue consuming for the remainder of their lives, and the experiences they have (positive or negative) with the product, services or organisation will impact their future purchases. The crucial issue for an organisation is that customers can also influence the purchase decision of other customers, because they will likely feel compelled to share their customer experience (CX) regarding the purchase (Stankevich, 2017).

Customer satisfaction is the extent to which the customer's physical, perceptive, and emotional responses result from using a system, product or service, and meeting the customer's needs and expectations (ISO 9241-210, 2019; Kotler & Armstrong, 2019; Yi, 1990). Customer retention is about giving customers what they expect; it is about exceeding the customer's expectations, with the aim of the customers becoming loyal advocates for the organisation (Kotler & Armstrong, 2019; Zeithaml et al., 2009).

Customer relationship management (CRM) is an approach that aims to create, develop and strengthen relationships with strategically selected customers, in order to improve customer satisfaction and organisational profitability, thereby maximising shareholder value (Lamb et al., 2012; Tait & Roberts-Lombard, 2018). CRM is frequently associated with applying information technology to implement strategies of relationship marketing (RM). Marketing is "the science of exploring, creating, and delivering value to satisfy the needs and wants of a customer" (Theodorou & Tsubrakakou, 2016, p. 62). RM refers to a marketing strategy that organisations utilise to satisfy the customer's purchasing decision and to launch effective and efficient marketing plans to retain the customer for organisational growth and improving profitability (Grönroos, 1994; Morgan & Hunt, 1994; Tait & Roberts-Lombard, 2018; Van Tonder & Roberts-Lombard, 2015). In this context, customer satisfaction is a fundamental driver of customer retention, and improved customer satisfaction is, therefore, likely to improve customer retention, and ultimately increase profits for the organisation (Hennig-Thurau & Klee, 1997; Kotler, 1994; Kotler & Armstrong, 2019; Lone & Shah, 2016; Murali et al., 2016).

e-CX factors influencing customer satisfaction

Kotler and Armstrong (2019), Mostert (2012) and Reichheld (1996) argue that it is more economical to retain customers than acquire new ones. It may be five to 25 times more expensive to acquire a new customer than to retain an existing customer (Gallo, 2014; Rasul, 2017). Besides, lifelong retained customers purchase more and, if satisfied, may generate positive word-of-mouth (WOM) for an organisation. Research indicates that by increasing customer retention rates by 5% in an organisation, profits may increase by 25% to 95% (Beevers, 2016; Gallo, 2014; Kotler & Armstrong, 2015; Reichheld, 2001; Reichheld & Scheffer, 2000; Wertz, 2018). Accordingly, organisations with a high retention rate of customers tend to grow faster (Iwuchukwu et al., 2019).

CX is interlinked with CRM (Buttle & Maklan, 2019). CRM has been based on capturing what an organisation knows about a particular customer, while CX, by contrast, has included the capturing of customers' subjective thoughts regarding a specific organisation (Buttle & Maklan, 2019; Hayes, 2016; Schwager & Meyer, 2007). CX encompasses every aspect of an organisation's offering. It is the "internal and subjective response customers have to any direct or indirect contact with an organisation" (Becker & Jaakkola, 2020, p. 635). Direct interaction occurs during the purchase, usage and service process, and it is often facilitated by the customer. Indirect interaction involves unintended interactions with representations of an organisation's products, services, or brands, and it can take the form of WOM (Becker & Jaakkola, 2020; Dube & Helkkula, 2015; Schwager & Meyer, 2007).

There is a plethora of information on all types of products and services available to customers through organisations and marketers' advertising and promotion efforts. Customers generally seek information concerning a product or service to assist with their purchasing decisions (Kuo & Nakhata, 2019). Customers also trust friends and family to advise about product and service offerings, classified as WOM (Dellarocas et al., 2007; Kuo & Nakhata, 2019). WOM communication, defined as all communication directed at other customers regarding the ownership, usage, or characteristics of particular products, services or the sellers/organisation, is a highly trusted source of information (Huete-Alcocer, 2017; Kotler & Keller, 2016). WOM connects customers, and it highlights marketers' prevailing powerlessness over customers; it is considered one of the most influencing elements in the customer decision-making process (Huete-Alcocer, 2017). WOM can be positive, negative, or both (Anastasiie & Dospinescu, 2019; Martin, 2017).

With the arrival of the internet, a different form of WOM emerged. Customers increasingly use online platforms to share their opinions concerning the products and services they purchase (Alarcón et al., 2018; Almana & Mirza, 2013; Chen & Law, 2016; Information Resources Management Association, 2020). Additionally, customers are progressively searching for information regarding a product or service in online comments (Information Resources Management Association, 2020; Nieto et al., 2014). This has led to the birth of electronic word-of-mouth (e-WOM) communication, which has put more power into the hands of the customer (Huete-Alcocer, 2017). A benefit of e-WOM is that all customers who can utilise online platforms to share their opinions, feedback, and reviews with other users are eligible to engage in e-WOM.

E-WOM provides organisations with an advantage over traditional WOM. It allows organisations to understand the motivating factors driving customers to post their opinions online and to determine the impact of those reviews on other individuals (Cantalops & Salvi, 2014; Huete-Alcocer, 2017). However, the use of technology by customers to express views on products or services (e-WOM) can be a liability to the organisation, as it can become a force that the organisation cannot control (Huete-Alcocer, 2017; Yang, 2017). To counteract this, organisations need to explore ways in which to gain greater control of customers. For a start, organisations have begun creating and providing interactive spaces on their online platforms for online reviews, where customers can leave comments and share their views on the products and services of the organisation (Huete-Alcocer, 2017). Shrestha (2016) confirms the importance of online reviews for customer decision-making when she mentions that 92% of customers seek e-WOM, and 40% of customers form an opinion about a product by reading electronic reviews before purchasing. Furthermore, e-WOM impacts customers' pre-purchase attitude and behaviour (for example, product attitude and purchase intention) and customers' post-purchase behaviours (for example, intention to share e-WOM). Although the impact of e-WOM on customer behaviour has been well documented in the literature (Hennig-Thurau et al., 2004; Ismagilova et al., 2019; Kreis & Gottschalk, 2015), limited studies are investigating how e-WOM messages posted on the websites of e-commerce retail organisations may impact long-term relationships between the retailers and their customers (Anastasiie & Dospinescu, 2019; Baur & Nyström, 2017; Siqueira et al., 2019).

For e-commerce to grow, CX with an organisation's website is critical to a customer's satisfaction with the organisation and the products or services (Pappas et al., 2014; Vakulenko et al., 2019). A customer is a user of an e-commerce website; therefore, user experience (UX) theory is essential in measuring customer satisfaction with the e-commerce organisation. UX is defined as a user's perceptions and responses, which include the user's behaviours, beliefs, emotions, "preferences, perceptions, and accomplishments that occur before, during and after use or anticipated use of a system, product or service" (ISO 9241-210, 2019; Morville, 2005). A critical factor for e-commerce success is UX, and, as such, it has become a requirement in the competitive online environment. Poor UX can lead to decreased sales, dissatisfied customers, negative e-WOM, negative impact on organisation brand, and increased support costs (Mathys, 2015).

An e-commerce retail organisation's website may provide an enriching UX to a customer, but it may be challenging to use. UX fundamentals encompass a customer's emotions and specific attitudes with regard to using a given product, service or system. By contrast, usability refers to how efficient or not a product or website is to use (Nielsen, 1993). The International Organization for Standardization (ISO 9241-210, 2019) defines usability as the "extent to which a system, product or service can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use." Kim et al. (2005) propose the e-quality (EQ) framework to better understand website usability and data quality success. E-commerce retail organisation system developers can use the framework to create quality websites. Customers can use EQ to comprehensively evaluate the e-commerce website from an information quality perspective (Kim et al., 2005; Yoo et al., 2007).

Equally important, satisfaction with the services that the e-commerce website renders must be considered, to fully comprehend customer satisfaction and customer retention with the e-commerce retail organisation. The present study will refer to the services rendered by an e-commerce organisation as electronic services (e-services), as an e-commerce retail organisation operates in the online environment (Jones & Robinson, 2012). The variables which influence e-services enhance the CX by focusing on the services rendered by the e-commerce organisation, rather than purely on what products and services are available for a customer to purchase (Baker, 2014). For example, there may be positive reviews of a specific product on the website. However, if the organisation's delivery of the product is not satisfactory, a customer may not intend to repurchase or provide positive e-WOM. Therefore, satisfaction with the e-services is just as crucial as the e-WOM, UX and EQ of the e-commerce organisation.

3. PROBLEM STATEMENT

There is a vast body of literature on customer satisfaction and customer retention, which are post-purchase behaviour outcomes in an organisation (Kotler, 1994; Kotler & Armstrong, 1999, 2015, 2019; Kotler & Keller, 2016; Tait & Roberts-Lombard, 2018). However, not much research has focused on how post-purchase behaviour outcomes are influenced by CX factors, specifically e-CX factors, in an online environment. As e-commerce differs from the traditional organisational context, the customer experience factors influencing customer satisfaction will also be different.

E-commerce is a growing field of commerce with a large market in the online community. With increased information transparency in the e-commerce environment (OECD, 2020), there is a greater chance that a customer will discover a product or service at a competitive price, as the environment provides the customer with an increased ability to search for and select any e-commerce retail organisation deemed fit for purpose (Kütz, 2016). Moreover, the COVID-19 pandemic has also stimulated the growth of e-commerce among new businesses, customers, and product categories (Oxford Business Group, 2021). E-commerce has provided customers with access to a wider products and services range, which they can choose from the comfort and safety of their own home, and it has allowed e-commerce retail organisations to continue operating under strict lockdown physical contact prohibitions and other confinement measures (OECD, 2020; Oxford Business Group, 2021).

In brief, competing e-commerce retail organisations are only a click away in an online environment, unlike traditional retail organisations, which can be metres or kilometres away. As a result, competition becomes flatter (Augusto et al., 2012; Dwolatzky & Harris, 2020). When products or services deliver almost the same value for a customer, an e-commerce retail organisation must provide their customers with a unique experience to differentiate the organisation from its competitors. Organisations must understand their role in improving e-CX and know how it influences the organisation's post-purchase outcomes.

CX is the customer's holistic perception of their experience with the organisation (Becker & Jaakkola, 2020; Clark, 2020). The current research intends to provide a comprehensive review of the factors that an e-commerce organisation needs to consider in their post-purchase outcome objective of customer satisfaction, and consequently, customer retention. Since the factors will be operational in the online environment, the current research will collectively refer to the factors as e-CX factors. For the present study, e-CX results from the interactions a customer has with the e-commerce retail organisation, from navigating the website, to interacting with the website, to reading electronic word-of-mouth (e-WOM) messages on the website, and, finally, to the services rendered by the organisation.

Increasing customer satisfaction and improving customer retention in any organisation is essential, because customer satisfaction and customer retention form part of the final stage in the customer purchasing decision process, known as post-purchase behaviour outcomes (Panwar et al., 2019). Customers continue consuming products, and the experiences had by the customer with the organisation (be they positive or negative) will impact future purchases. Besides, when customers purchase a product from the same organisation on several different occasions over a period of time, there is said to be at least some degree of satisfaction (Kotler & Armstrong, 2019; Ramkumar & Jin, 2019). The problem to be addressed by this paper can thus be stated as follows: *What are the e-CX factors necessary for ensuring customer satisfaction, which will lead to greater customer retention, of e-commerce retail organisations?*

4. RESEARCH DESIGN AND METHODOLOGY

For the present study, secondary research was conducted, which followed a qualitative research approach nested in a phenomenological paradigm. Secondary research involves re-analysing,

interpreting, or reviewing past data (Stewart & Kamins, 1993). It involves the use of data that was collected by past researchers (Saunders et al., 2016). As a research technique, a secondary research approach can serve as an individual technique. It can also form part of a study's initial stage and act as an antecedent to primary research (Jesson & Matheson, 2011). In this study, the secondary research design is utilised as an individual technique.

The first step in conducting secondary research is to develop the research question (Johnston, 2014). The research question needed to be well defined, as it informs the search criteria and the data collection procedures used (Collis & Hussey, 2014; Saunders et al., 2016). To do this, the general research area was established, which is CX in an e-commerce environment. After the general topic was identified, the researchers read through existing papers and articles to see whether there is a gap in the literature that the current research can fill. Previous research had not investigated the difference in CX in an electronic retail environment compared to a traditional landscape. Here, the concept of e-CX emerged, and the research question was specified: *What are the e-CX factors necessary for ensuring customer satisfaction, which will lead to greater customer retention, of e-commerce retail organisations?*

To increase the credibility of the data in relation to trustworthiness, the researchers collected and critically assessed data from academic textbooks, journal papers, and online resources using Google Scholar and the university library (Collis & Hussey, 2014; Johnston, 2014). This data collection method was utilised to develop the framework of possible e-CX factors necessary for e-commerce retail organisations to influence the post-purchase outcome of customer satisfaction, which will lead to greater customer retention. The research question-driven approach to analysing existing data (Cheng & Phillips, 2014) analysed existing information from numerous sources that previous scholars had gathered through primary research. Cross-referencing and data collation was then followed (Cheng & Phillips, 2014; Collis & Hussey, 2014).

The literature was grounded on the study's purpose and on when and by whom the literature was collected (Collis & Hussey, 2014; Saunders et al., 2016). All the literature obtained was thoroughly studied to attain a sense of the content and its context. The key criteria for evaluating the secondary data was the timeliness of the data to make sure data was up-to-date, the accuracy of the data, which would be making sure academic researchers collected the data, the relevance of the data to the current study's research question, and the cost of the data (Sekaran & Bougie, 2016; Johnston, 2014; Stewart & Kamins, 1993). The cost of the data considered whether the researchers could access the data without hidden costs or journal fees (Cheng & Phillips, 2014). Through the secondary analysis of existing data, e-CX factors that influence customer satisfaction were grouped based on their contextual similarities and interrelationships, as well as their relevance and relatability to e-commerce retail organisations. The factors were reduced by grouping those that were related to one another. Consequently, four factors remained that were deemed necessary for the influence of e-CX on customer satisfaction.

The secondary research findings were then presented as a framework illustrating the e-CX factors influencing customer satisfaction, and consequently, customer retention. The findings of this paper can be regarded as trustworthy as the findings are based on global and South African literature, which

was sourced predominantly from recent available journal papers. The framework can be tested globally, even though the setting of the present study’s context was South African e-commerce retail organisations. Additionally, with minor adaptations, the framework can be applied to other e-commerce organisations, not in the retail industry.

5. FINDINGS

According to the aforementioned research, it can be premised that four e-CX factors are necessary for adequate customer satisfaction. The framework of the four identified e-CX factors necessary for adequate customer satisfaction, and consequently customer retention, is depicted in Figure 1.

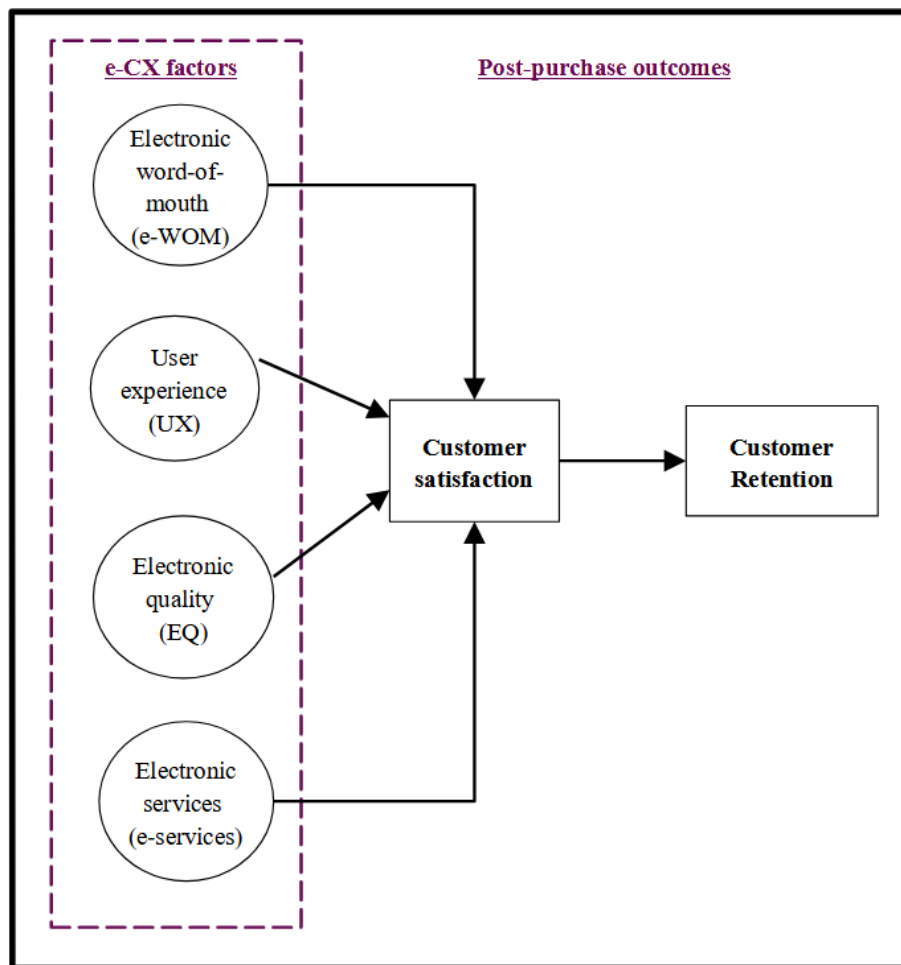


Figure 1. e-CX framework for adequate customer satisfaction

Source: Researchers’ construction

6. LIMITATIONS, CONCLUSION AND RECOMMENDATIONS

The factors of e-CX may not be exhaustive; therefore, it is acknowledged that there is, within the realm of possibility, other e-CX factors essential to target and increase customer satisfaction for e-commerce retail organisations. As there is not much information available on e-CX as a tool to increase customer satisfaction, there was an over-reliance on information relating to customer experience in this paper. For this reason, the

information may be generic to any industry. Despite this, the current review has contributed to the limited existing literature on e-CX within the context of the e-commerce retail organisation industry.

Shopping online has become a norm in the retail industry today. The role of e-CX to guide and encourage customer satisfaction, and consequently customer retention, should not be underestimated. Quintessentially, e-commerce has provided a vast number of opportunities for retail organisations; however, e-commerce has created just as many options for customers. Therefore, organisations must be aware of how they are going to create and develop CS to increase the organisation's CR. The present study highlights that this can be accomplished by targeting e-CX.

It is recommended that the framework of the e-CX factors and the variables measuring the e-CX factors necessary for targeting and increasing customer satisfaction, and consequently customer retention, be tested in a quantitative study. The current study can form part of a future study's initial stage and act as an antecedent to primary research. Therefore, in the recommended quantitative study, the hypotheses that can be tested may be based on the following premises of the current study:

- Premise 1: The four factors of e-CX are e-WOM, UX, EQ and e-services.
- Premise 2: There is a relationship between e-WOM and customer satisfaction.
- Premise 3: There is a relationship between UX and customer satisfaction.
- Premise 4: There is a relationship between EQ and customer satisfaction.
- Premise 5: There is a relationship between e-services and customer satisfaction.
- Outcome: There is a relationship between customer satisfaction with e-CX factors and customer retention.

Within the quantitative study recommended, based on multiple regression analysis results, the e-CX factors and the variables measuring the e-CX factors that are critical to ensure increased customer satisfaction, and consequently customer retention, can be established and statistically verified.

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LOYALTY CARDS AND ITS BENEFITS TO CUSTOMERS OF FAST-MOVING CONSUMER GOODS (FMCG) STORES IN MAHIKENG

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ABSTRACT

Loyalty programs (LPs) have become a fundamental strategy to secure a greater part of consumer expenditure. The primary goal of this study was to investigate the relationship between value of LPs and its benefits to customers of FMCG retailers in Mahikeng in the North West province of South Africa. A cross-sectional survey design was used in this study, by means of the purposive sampling method. The scales used measured loyalty program impact (LPI), value of loyalty card (VLC) and customer loyalty (CL). After the preliminary data analysis, 380 questionnaires were deemed viable for analysis. The analyses conducted on the collected data were: reliability and validity analysis, descriptive analysis, exploratory factor analysis, correlation analysis and regression analysis. Customers preferred to patronise a loyalty program that provided good value as well as offering benefits. Loyalty programs were found to increase customer loyalty and stimulate relationships between retailers and customers. Furthermore, loyalty programs such as reward programs, point systems, discount program, and coupons contributed towards motivating customers' purchasing behaviour. Findings also showed that different forms of loyalty programs played a role in providing customers with sense of belonging and assisting in enticing potential customers. Lastly, a significant positive relationship was found to exist between loyalty programs and customer loyalty. The findings suggest that an increase in the services of a loyalty program could lead to increases in customer loyalty. The findings of this study have painted LPs as a marketing strategy that could enhance sales and generate sales growth for better growth of FMCG industries in the North West Province. Thus, the findings contribute to existing literature on FMCG retailers and loyalty programs. These findings

will assist all stakeholders, while retailers and government will be motivated to invest in LPs, customers will be drawn towards patronising the programs, especially because of their benefits. Future studies might vary and use different constructs to determine different perspectives on loyalty programs.

Keywords: Fast moving consumer goods, FMCG, loyalty cards, consumer goods, values.

1. INTRODUCTION

Fast-moving consumer goods (FMCG), known as the consumer packaged goods sector, is one of the largest sectors in South Africa and can be defined as products that produce a quick turnover at a low cost (KPMG International, 2016). The contribution of FMCG to the economy cannot be disregarded, as the sector helps the country to generate revenue and makes companies profitable. More so, FMCG are seen as the engine for economic growth, considered as development in developing countries that increase employment opportunities, capital savings and poverty alleviation (Cha & Park, 2019; Friday et al., 2011).

From the aforementioned potential of FMCG, industries are faced with the challenge of maintaining a high level of productivity and therefore, operate in a highly competitive market. Such competitive situations prompt the need for adopting various marketing strategies, of which loyalty programs (LP) are an example. LPs refers to a marketing strategy that is planned and serves to encourage repetitive buying and larger purchases. (Olivier & Burnstone, 2014). As an incentives and rewards strategy it promotes a marketing strategy relationship which assists in securing consumer patronage (Breugelmans et al., 2015; Kang et al., 2015). Brown (2012) argues the importance of LPs from a marketing perspective, claiming that they help to obtain consumption patterns of consumers which may be a valuable data source for marketing research. In addition, LPs are strategies that promote the marketing of customer relationships, often to increase loyalty and improve relationship quality (RQ) (Meyer-Waarden, 2015; Zhang & Breugelmans, 20120). Thus, LPs are important marketing tools (Kreis & Mafael, 2014; King & Clark, 2014; Meyer–Waarden et al., 2013). In South Africa, there has been a rapid increase in LPs at great expense to retailers (Odupitan, 2017). Previous publications by Baar (2013) and Under30CEO (2018) argue that LPs assist in the customisation of integrated marketing communication, yet not much is known about the conflicting value of loyalty cards at FMCG retail stores in Mahikeng.

The purpose of LPs is to offer different forms of rewards including, points and discounts benefits, in exchange for rewarding customers' patronage. This creates a win-win situation whereby the industry also gains market share and profitability. Sharma and Verma (2014) agree and state that LPs are intended to offer customers advantages in exchange for their business. The rationale behind this is that customers will remain with the retailer as long as they are satisfied with the LPs it offers (Xie & Chen, 2013). One of the main difficulties for companies that offer LPs is the identification of the right combination of rewards, particularly those that are difficult to imitate. Moreover, Steyn et al., (2011) found offers that do not provide sufficient value have led customers to switch to better alternative programs. Oberholster (2016) identified several factors causing the failure of LPs. They are complicated and difficult to operate programs; insufficient return on investment; no perception of

customer benefits; and a lack of customer loyalty to the programmes.

2. RESEARCH PROBLEM AND RESEARCH OBJECTIVES

Customer loyalty and retention are at the core of the marketing objectives that marketing specialists must achieve, as there is an increase in experienced customers who are increasingly aware of product and service options (Agudo et al., 2012). According to Potgieter and Mandlasi (2018), LPs and the use of loyalty cards impact significantly on the growth of FMCG, an impact that is important to the present study. The problem culminates in a lack of consumer knowledge with regards to the benefits of the LPs of retail stores (FMCG retailers) LPs. Therefore, the study sought to critically consider the conflicting value of loyalty cards, particularly in Mahikeng, with a view that the findings will be of paramount importance in providing insights towards the benefits contained in reward systems and how this will impact significantly on the FMCG sector specifically in South Africa.

The purpose of this study was to investigate the relationship between the value of LPs and their benefits to customers of the FMCG sector in Mahikeng. The linked research objectives are:

- To examine the values of loyalty cards and benefits to customers of fast-moving consumer goods (FMCG) retailers.
- To analyse the contributing function of the different forms of loyalty programs.
- To determine the extent to which loyalty programs increase customer loyalty towards FMCG retailers.

3. LITERATURE REVIEW

Over the past years, loyalty marketing has become a recognised tool in the competitive differentiation plan of commercial distributors, whereby intertype competition and sales formats have become subject to increased competitive pressure (Lugli & Pellegrini, 2005). Several challenges have been faced by distribution companies, including: changes in demand, difficulty in coping with growth in supply, progressively customised and customer unpredictable purchasing behaviour and changes in consumption behaviour.

Loyalty program (LP) rewards offer a range of benefits to members, which include both the tangible and intangible. While tangible tools are concerned with offer benefits such as financial rewards, gifts and discounts, intangible premiums target customers' psychological and/or emotional mentality (García-Gómez et al., 2012). Thus, in this sense, LPs strive to provide the right offering that generates behavioural loyalty in customers by reaching them emotionally and attitudinally (Eason et al., 2015).

Tangible awards are omnipresent and appreciated by the majority of customers, but, the benefits are generally misinterpreted and thus fail to build the expected relationships and loyalty (Meyer-Waarden, 2015; Bridson et al., 2008; Tabaku & Zerellari, 2015). A relationship exists between tangible premiums and intangible benefits (Garzia-Gómez et al., 2012). Eason et al. (2015) identify three benefits of LPs. These are self-benefits, altruists and the third is first and the second combined. Self-benefit is the receipt of direct rewards in exchange for clientelism (García-Gómez et al., 2012). Altruistic rewards on the other hand are connected to a third party, which generally serves to attract

customers, for example, favourite schools, childcare centres and retirement homes. Eason, et al. (2015) also argue that LPs that contribute to a charity can increase customers; positive feelings towards the programme and the retailer.

Relational marketing refers to a move from individual-based transactions to a sustainable relationship for stakeholders (Agariya & Singh, 2013). Vesel and Zabkar (2010) emphasise that building a transaction-based relationship is difficult, because of the diversity of such a relationship. Liu and Yang (2009) and Hennig-Thurau et al. (2002) argue that the quality of the relationship (RQ) mostly comprises three dimensions: satisfaction, trust and commitment. Commitment in this regard is the desire for the customer to remain in a relationship with the retailer. Thus, relational marketing is relational engagement seen as an exchange partner who believes that a continuous relationship with another is so important as to guarantee the maximum effort to maintain it (Morgan & Hunt 1994). Trust refers to the customer's expectation and dependence on the promises of the supplier (Wong & Sohal, 2002). Developing confidence in the retailer creates the zeal for re-investment in a relationship with the retailer (García-Gómez et al., 2012). Satisfaction is a result of the positive feelings associated with customers' expectations and benefits received. Retailers are of the opinion that a well-designed LP is expected to retain customers. It should also develop a long-term relationship that is capable of adding value and ensuring communication (Meyer-Waarden, 2013).

Oliver (1999, p. 33) defines customer loyalty (CL) as "a commitment deeply rooted in re-acquiring or sponsoring a constantly preferred product / service in the future, thus causing the same brand or set of repetitive marks". Retailers are therefore concerned with achieving the loyalty of their customers, particularly because of the competitive retail environment (Thoma, 2013; Bloemer & De Ruyter, 1998). In addition, CL allows retailers to be able to predict future purchases and facilitate product recommendations to customers (Cant & Du Toit, 2012). It creates behavioural and attitudinal connections with the business. According to Bridson et al. (2008), loyalty has two dimensions, namely attitudinal and behavioural. Demoulin and Zidda (2008) consider true loyalty to be when customers not only engage in repetitive buying behaviour, but demonstrate a positive attitude to the retailer in question. A careful review of past studies on LPs indicates that a number of varied concepts are used by different retailers to define LPs (Dorotic et al., 2012). In this study, the concept "loyalty programme" is used within the context of FMCG retailers to represent a program that offers customers benefits on past account of their purchases (Kim et al., 2013; Sayman & Hoch, 2014).

In recent years a number of different versions of LPs have been introduced into the South African market. Olivier and Burnstone (2014) have found a significant growth in LPs in the country, whereby an average South African is found to belong to over two programs simultaneously. Preferred LPs are those connected with supermarkets (Moorad, 2015), encouraging some retailers to invest over R100 million in programs development (Magwaza, 2014). The South African retail market is recognised to be the largest retail market in sub-Saharan Africa, with a per capita income greater than any other continent (Price Waterhouse Coopers, 2012). This makes South Africa very attractive for investment opportunities by Western companies (Jackson, 2012). In South Africa the supermarket industry is hugely important, since food sales account for over 50% of retail sales. It is worth noting that some of the biggest LPs in the country's retail sector are offered within the FMCG environment.

A loyalty program (LP) is a system used by larger retail stores to attract customers for continuous patronage (Corbishley, 2017). Garzia-Gomez et al. (2012) explain that they do so by means of accumulating points through purchases and recording on a card tangible rewards, such as discounts on forthcoming purchases, gifts and intangible rewards such as customers' needs, privileged access to products and special communication. Hutchinson et al. (2015) opine that in a modern competitive environment customer acquisition is simply insufficient for any industry to sustain market share. However, retaining customers is increasingly more important for industries to attain a competitive advantage. In this regard, loyalty programs (LPs) are gradually becoming a crucial strategy for businesses worldwide to maintain their customers while developing and building stronger relationships.

Loyalty cards comprise a host of tangible or intangible benefits and rewards. While tangibles are benefits linked to financial incentives, gifts and discounts, whereas intangible incentives are aimed at target customers' psychological and/or emotional mind-set (Garcia-Gómez et al., 2012). Tangible rewards are often available for a limited period, they are universal and the majority benefit from the program. In South Africa, Corbishley (2017) analysed retail loyalty programs by examining customer-retailer relationships. The goal was to establish cardholders' perception on the various rewards of loyalty programs in the supermarket setting Findings exhibited feelings towards the several forms of LPs. It was found that LPs offering tangible and immediate rewards were highly favoured.

4. RESEARCH METHODOLOGY AND DESIGN

The study's aim was to investigate the value of loyalty cards to customers and followed the positivist paradigm approach by employing a quantitative methodology. It was based on a descriptive research design, as the study aim was to investigate the value of loyalty cards to customers of fast-moving consumer goods (FMCG) retail stores in Mahikeng. The population from which the samples of this study were drawn consisted of customers who buy from FMCG retailers who hold a loyalty card. Statistics South Africa Census 2011 cited the Mahikeng urban population as 53 414, a number that includes Mahikeng industrial areas, Golfview, Danville, Riviera Park and people living at the urban Mmabatho units.

The study used purposive sampling or judgmental sampling for selecting customers with loyalty cards. The purposive technique was found to be the best fitting sampling technique for the study as information-rich individuals are important to the study. With a 0,05% degree at accuracy and 95% level of confidence, the sample size was set at 380. The sample was selected from customers with loyalty cards at Mahikeng Pick 'n Pay, OK Foods and Woolworths who have knowledge of the value of loyalty cards or programs. The targeted stores were Mahikeng Pick 'n Pay, OK Foods and Woolworths where permission to conduct the study from retailers of these stores was sought. Customers were conveniently selected as they come out of the selected shops (Pick 'n Pay, OK Foods and Woolworths), upon which those that were willing to complete a self-administered questionnaire were asked to do so.

This study collected data by means of questionnaires. Four hundred and five (405) questionnaires

were distributed among respondents but three hundred and eighty (380) were considered useable after the data cleaning process. Thereafter, the data were coded and tabulated. The questionnaire for the study comprises two sections, A and B, the latter being divided into three parts (Part A, B and C). Also, section A captures the demographic details of respondents. Part A measures the impact of different forms of loyalty programs to consumers of FMCG retailers. Part B measures the value of loyalty cards to customers of FMCG retailers. Part C consists of five questions and all three parts were measured on a five-point response Likert scale.

Ethical clearance was sought and obtained from the North-West University (NWU-00749-19-A4). Thereafter, permission to collect data from the identified malls was also obtained from the managers of the malls before commencement of data collection. To test for content validity, the questionnaire was pre-tested. A pilot test was carried out on a convenience sample of five customers of loyalty programs in the North West Province. Respondents who took part in the pilot study were not involved in the main study. During data cleaning, only two of the statements were rephrased for better clarity. The questionnaire was deemed viable as mistakes found did not exceed the 10% margin of error.

The data obtained was analysed at two levels. The first was at univariate level where frequencies, tables and graphs were used to show preliminary analysis. The second was at binary level, where analysis was carried out to indicate the relationships between variables and all questions were tested. The analyses conducted include: reliability and validity analysis, descriptive analysis, exploratory factor analysis, correlation analysis and regression analysis.

5. FINDINGS

The majority of the respondents that participated in the study were female (66.1%) only 33.9% were male. Almost sixty-two percent (61.8%) of the respondents were single, 33.2% were married, 0.3% were separated, those divorced were 2.9% and the widowed were 1.6%. The majority of the individuals that participated in the study were over 41 years of age (26.8%). The lowest age range was respondents between the ages 26-30 and 36-40, representing 14.7% of the total age of respondents. Those between ages 18-25 and 31-35 were 25.3% and 18.4% respectively. Patronise were divided among Pick 'n Pay (43.9%), OK Foods (22.9%) and Woolworths (26.1%). The respondents' patronising retailers other than the aforementioned came to 7.1%. One hundred and sixty-two respondents (162), constituting 42.6% of the overall respondents in the study, had a tertiary qualification and only 13 (3.4%) had no matric certificate. Respondents who had matric certificates came to 92 (24.2%) and 82 (21.6%) had technical college certificates. Table 1 below shows the demographic details of respondents.

Table 1. Demographical profile of respondents

| | | | | | |
|----------------|-------------|---------|-------------------|--------------------|---------|
| GENDER | Male | Female | | | |
| | 129 | 251 | | | |
| MARITAL STATUS | Single | Married | Separated | Divorced | Widowed |
| | 235 | 126 | 1 | 11 | 6 |
| AGE | 18-25 | 26-30 | 31-35 | 36-40 | >40 |
| | 96 | 56 | 70 | 56 | 102 |
| PATRONISE | Pick 'n Pay | OK | Woolworths | Others | |
| | 167 | 87 | 99 | 27 | |
| EDUCATION | No matric | Matric | Technical college | University college | Other |
| | 13 | 92 | 82 | 162 | 1 |

Descriptive statistics

The five-point Likert scale in Section B of the questionnaire was used to collect data. The mean, standard deviation, skewness and kurtosis were determined from the data. Table 2 provides a summary of the descriptive analysis. A higher mean score correlates with higher agreement.

Table 2. Descriptive statistics

| Items | N | Mean | SD | Skewness | Kurtosis |
|-------------------------------|-----|------|--------|----------|----------|
| Loyalty program impact | 380 | 3.77 | .79157 | -0.900 | 1.303 |
| A1 | 380 | 3.65 | 1.035 | -0.838 | 0.550 |
| A2 | 380 | 3.78 | 0.957 | -0.661 | 0.324 |
| A3 | 380 | 3.86 | 0.988 | -0.771 | 0.236 |
| A4 | 380 | 3.82 | 1.020 | -0.932 | 0.768 |
| A5 | 380 | 3.73 | 1.024 | -0.715 | 0.213 |
| Value of loyalty card | 380 | 3.74 | .80956 | -0.766 | 0.838 |
| B1 | 380 | 3.92 | 1.010 | -1.038 | 0.882 |
| B2 | 380 | 3.81 | 0.977 | -0.737 | 0.228 |
| B3 | 380 | 3.75 | 0.969 | -0.680 | 0.241 |
| B4 | 380 | 3.74 | 0.985 | -0.668 | 0.018 |
| B5 | 380 | 3.58 | 1.029 | -0.545 | -0.190 |
| B6 | 380 | 3.62 | 1.004 | -0.458 | -0.187 |
| B7 | 380 | 3.74 | 0.971 | -0.772 | 0.446 |
| Customer loyalty | 380 | 3.93 | .67916 | -0.975 | 2.240 |
| C1 | 380 | 3.75 | 0.897 | -0.663 | 0.560 |
| C2 | 380 | 3.84 | 0.934 | -0.619 | 0.114 |
| C3 | 380 | 3.99 | 0.923 | -0.985 | 1.035 |
| C4 | 380 | 3.85 | 0.843 | -0.617 | 0.497 |
| C5 | 380 | 4.13 | 0.863 | -1.017 | 1.218 |
| C6 | 380 | 3.99 | 0.909 | -0.886 | 0.843 |

Section B of the questionnaire consisted of three scale measurements with the Likert scale response having values 1-5, indicating strongly disagree, disagree, neutral, agree and strongly agree. The three scales measured loyalty program impact, value of loyalty card and customer loyalty. Values lower than 3 indicated that respondents strongly disagreed, disagreed and felt neutral with the statements,

while 4 and 5 showed that the respondents agreed and strongly agreed with statements. All constructs measured a mean value above 3.0. Respondents strongly agreed with the impact of a loyalty program (mean = 3.7673; SD = .79157), value of loyalty card (mean = 3.7360; SD = .80956) and customer loyalty (mean = 3.9250; SD = .67916).

Respondents strongly agreed that loyalty programs retain customers, ensure customer loyalty, promote repeat purchase and enhance customer satisfaction. Respondents strongly agreed that loyalty cards motivate customers, increase loyalty, stimulate relationships between retailers and customers, increase purchases, provide customers with a sense of belonging to a certain societal class and entice potential customers to become customers.

Results also show that respondents strongly felt that flexible reward programs encourage engagement in a loyalty program. Likewise, they felt that customer satisfaction is the bedrock of customer loyalty. Moreover, they strongly agreed that good customer service integrated with loyalty programs are expected to build relationships between customers and retailers. Finally, respondents strongly felt that people are loyal to programs that are trustworthy and advertisement of loyalty programs encourages customer loyalty. Table 2 shows a positive skewness in all three constructs, since all factors fell between the recommended -2 and 2. Values, therefore, were all accepted. The kurtosis of each was accepted, although the kurtosis of construct three was rather high but was kept.

Exploration of factor analysis

Section B of the questionnaire was tested using exploratory factor analysis (EFA), through the use of principal component analysis and varimax rotation. To test the adequacy of the sample for conducting EFA, the Kaiser Meyer Measure of Sampling Adequacy (KMO) was conducted and the factorability of the correlation matrix for the items was confirmed using the Bartlett's Test. Table 3 shows the sampling adequacy and factorability.

Table 3. Sampling adequacy and factorability of the correlation matrix

| KMO and Bartlett's Test | | |
|---|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | .935 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 3892.739 |
| | Df | 153 |
| | p-value | .000 |

The KMO (KMO= 0.935 > 0.5) is greater than the benchmark of 0.6, as recommended by Brown, (2006), and therefore, the sample was adequate for conducting exploratory factor analysis and a significant p-value ($p < 0.05$) of the Bartlett's test of sphericity (Bartlett's test = 3892.739; $df = 153$; and $p = .000 < .05$) shows that the correlation matrix of the items is factorable (Leedy & Ormrod, 2010). All communalities are greater than 0.3, according to Babbie (2015) variables greater than 0.3 should be used in factor extraction. Factors extraction is portrayed in Table 4.

Table 4. Factor extraction

| Component | Rotation Sums of Squared Loadings | | |
|-----------|-----------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % |
| 1 | 8.509 | 47.273 | 47.273 |
| 2 | 1.493 | 8.293 | 55.566 |
| 3 | 1.362 | 7.565 | 63.131 |

Using the Kaiser’s rule of eigenvalues greater than one (Brown, 2006), the table above shows that there are three factors with eigenvalues greater than one which implies that three factors are to be extracted. These three factors explain approximately 63.131% of the total variation, which implies that they explain more than 50% of the variation and Leedy & Ormrod (2010) deem this as adequate. The extracted factors are presented in Table 5.

Table 5. The rotated component matrix

| | Factors | | | *Comm |
|---------------|---------|-------|-------|-------|
| | 1 | 2 | 3 | |
| A1 | | | .770 | .556 |
| A2 | | | .774 | .630 |
| A3 | | | .830 | .640 |
| A4 | | | .779 | .682 |
| A5 | | | .698 | .594 |
| B1 | .720 | | | .644 |
| B2 | .780 | | | .714 |
| B3 | .786 | | | .698 |
| B4 | .789 | | | .666 |
| B5 | .866 | | | .643 |
| B6 | .849 | | | .647 |
| B7 | .837 | | | .678 |
| C1 | | .501 | | .530 |
| C2 | | .746 | | .563 |
| C3 | | .875 | | .687 |
| C4 | | .687 | | .613 |
| C5 | | .861 | | .649 |
| C6 | | .562 | | .529 |
| Eigen Values | 47.273 | 8.293 | 7.565 | |
| % of variance | 63.131 | | | |

The Promax rotated factor matrix above shows that Factor 1 (value of loyalty cards) comprises seven items, B1-7 Factor 2 (customer loyalty) comprises six items, C 1-6 and Factor 3 (loyalty program impact) comprises five items A 1-5. The tests conducted provided satisfactory results. All the factor loadings had values above 0.5, hence all factors loaded as expected.

Reliability and validity analysis

Cronbach Alpha was used as a measure of reliability. The Cronbach’s alpha measurement used in the study indicated acceptable inter consistency, all the factors reported good reliability: loyalty program was $\alpha = 0.85$, value of loyalty cards was $\alpha = 0.92$ and customer loyalty was $\alpha = 0.85$ (see Table 6).

Table 6. Cronbach alpha and average inter-item correlation

| Construct | Numbers of items in scale | Cronbach Alpha | Item means | Average inter-item correlation |
|------------------------|---------------------------|----------------|------------|--------------------------------|
| Loyalty program impact | 5 | 0.847 | 3.767 | 0.526 |
| Value of loyalty cards | 7 | 0.916 | 3.736 | 0.611 |
| Customer loyalty | 6 | 0.852 | 3.925 | 0.492 |

According to Saunders *et al.* (2012), 0.70 is the recommended value of standard Cronbach alpha. Therefore, the reported reliability in the study was satisfactory. In addition, the average inter-item correlation must be above 0.3 to be valid (Aluko & Odularu, 2013:17). In the present study, the average inter-item correlation varied from 0.492 to 0.611. Such high inter-item correlation is expected and acceptable, especially when items measure the same concepts with slight differences. The scale of measurement was deemed acceptable, because of their Cronbach Alpha values, and the average inter-item correlation values were also supported by previous studies (Leedy & Ormrod, 2010) who argue that an average of 0.6 average inter-item is also acceptable.

Correlation analysis

Table 7 shows that the correlations between all three constructs (LPI, VLC and CL) range between $1 \geq r \geq -1$, which means that all constructs are significant and the correlation is in the expected positive direction. The table further indicates nomological validity. The relationships between all three constructs are therefore significant.

Table 7. Correlation analysis

| | (LPI) | (VLC) | (CL) |
|------------------------------|--------|--------|-------|
| Loyalty Program Impact (LPI) | 1.000 | . | |
| Value of Loyalty Card (VLC) | .612** | 1.000 | |
| Customer Loyalty (CL) | .593** | .660** | 1.000 |

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

Regression analysis

Table 8 shows the finding from the regression analysis and ANOVA test conducted on the dependent variables (customer loyalty) with the independent variables (loyalty program impact and value of loyalty card).

Table 8. Regression model summary model

| Standardised beta coefficient | r ² | Adjusted r ² | Standardised. Error Estimate | F | Significance level |
|-------------------------------|----------------|-------------------------|------------------------------|---------|--------------------|
| 0.702 | 0.492 | 0.490 | 0.48523 | 182.746 | 0.000* |

*Significance at the p < 0.05 (2-tailed)

A coefficient of determination of 0.492 shows that 49.2% of the variation in customer loyalty amongst customers of fast-moving consumer goods (FMCG) retailers in Mahikeng can be attributed to loyalty program impact as well as the value attached to the program. In other words, the benefit derived from loyalty programs determined whether people will patronise a certain loyalty program or not. An F value of 182.746 and a significance of 0.000 (F = 182.746 p < 0.05) suggest that the independent variables reliably and significantly predict the dependent variable. That is to say, loyalty program impact and the value of program card can be used as predictors to customer loyalty to FMCG retailers. Table 9 depicts each independent variable's contribution to the prediction of customer loyalty.

Table 9. Contribution of each of the independent variables, Model 1

| Model 1 | Standardised Coefficients Beta | t-value | Significance level |
|------------------------------|--------------------------------|---------|--------------------|
| Dependent Variable | | | |
| Customer Loyalty | | 11.020 | .000 |
| Independent Variables | | | |
| Loyalty Program Impact | 0.302 | 6.505 | .000 |
| Value of Loyalty Card | 0.475 | 10.234 | .000 |

*Significance at the <0.05 level (2-tailed)

Table 9 shows that the independent variables have a significant influence on customer loyalty. Loyalty program impact (LPI) ($\beta = 0.302$, $p = 0.000 < 0.05$) and value of loyalty card (VLC) ($\beta = 0.475$, $p = 0.000 < 0.05$) have a significant influence on the dependent variable (customer loyalty).

6. DISCUSSION

The first research objective examined the value of loyalty cards and benefits to customers. The findings suggest that the value of a program card can be used as predictor to customer loyalty to FMCG retailers in Mafikeng. The implication of this finding is that customers will only patronise a loyalty program that provides good value as well as offers some kind of benefit.

The second research objective of this study was to analyse the contributing function of the different forms of loyalty programs. The study findings show significant contributing functions of loyalty programs. Loyalty programs were also found to increase customer loyalty and stimulate relationships between retailers and customers. The findings suggest that loyalty programs such as reward programs, point systems, discount programs and coupons contribute towards motivating customers' purchasing

behaviour. The findings further suggest that different forms of loyalty programs play a role in providing customers with sense of belonging and assist in enticing potential customers.

The third research objective of this study was to determine the extent to which loyalty programs increase customer loyalty towards FMCG retailers. It was found in the correlation analysis that a significant positive relationship exists between loyalty programs and customer loyalty. The findings suggest that an increase in the services of a loyalty program will lead to an increase in customer loyalty.

7. RECOMMENDATIONS

The provision of a smart shopper program by FMCG retailers in Mafikeng is suggested, as this will enable a quick cashier-customer relationship and ensure that customers are in position to accumulate points on their cards. It will also foster a healthy collaboration between the management of FMCG retailers and customers at all FMCG retailers in Mafikeng. The constant reminding of customers to swipe their cards is important, which should be indicated at the entrance of FMCG stores, at the payment point and verbally by cashiers. Such reminders will ensure that customers do not miss out on rewards and points on every purchase and because customers only patronise a loyalty program that provides good value and offers, this will strengthen customer satisfaction and comfort levels and thus retain customers. It is further recommended that FMCG industries should develop and create shopping apps and encourage online shopping amongst their customers. The app should be easy to use and customer friendly. This initiative can also integrate partnering with banks, whereby customers can earn EBucks at a satisfactory rate during purchases. Digital shopping is convenient and less stressful, as it avoids queues during physical-contact shopping. Joining up with Ebucks will further foster satisfaction and customer loyalty.

Additionally, it is recommended that FMCG retailers across South Africa should strategically design programs in which rewards are connected with the next purchase. The intention is to increase retention rates. For example, the next purchase should be associated with a free golf training course or a free visit to a spa or personal stylist services, which may be a free hair cut or a hair dressing service. Rewards that offer more symbolic benefits, such as a free ticket to VIP, can also be strategically designed.

Finally, FMCG retailers should create a tier reward system that aligns benefits with members' status (silver, gold, platinum). The higher the membership status the higher the benefits accrued to members. The awareness of this package should be an open plan, whereby all customers have knowledge of it through regular and periodic messages to them via emails and messenger. Linking rewards to members' status will foster healthy competition among customers and increase repetitive purchases.

8. LIMITATIONS OF THE STUDY

Due to time and financial factors, the study is not longitudinal and conducted using a cross-sectional research design. This design requires the use of quantitative approach, an approach that may limit study findings to interpretations from only numerical data. It is suggested that future research on the value of loyalty programs should be longitudinal and adopt a mixed methodology research design, as

this will provide additional qualitative information from customers' meanings and understanding of the value of loyalty program. Secondly, the study was conducted on loyalty program members in Mafikeng, North West Province in South Africa, which resulted in a smaller sample size. The implication of such findings is that making inferences about the rest of the country may prove difficult. It is recommended that future studies should consider a bigger sample size from more than one province in the country, as this will result in a larger sample size and make generalisation more broadly applicable.

Thirdly, this study concentrated on constructs that focused on loyalty program impact and loyalty programs in relation to reward programs, point systems, price discounts and coupons. Future studies might vary and use different constructs to determine different perspectives on loyalty programs. Through these studies, other contributing functions may arise for possible considerations when investing the loyalty program for FMCG industries. Finally, the study did not consider the frequently used loyalty program. There is a need for future studies on loyalty programs to consider the preferred used loyalty programs. This may be important in the identification of LPs that are most important for generating increased sales and financial growth for FMCG industries.

9. CONCLUSION

The study found a positive correlation between the loyalty program and customer loyalty. Customer loyalty to fast-moving consumer goods (FMCG) retailers in Mahikeng was also found to be attributable to loyalty program impact and the value attached to the program. In other words, the benefit derived from loyalty programs determine whether people will patronise a certain loyalty program or not. The implication is that loyalty program impact and the value of program card may be used as predictors to customer loyalty for FMCG retailers in South Africa and globally.

Furthermore, loyalty programs such as reward programs, point systems, discount program and coupons contribute towards motivating customers' purchasing behaviour, increase customer loyalty, stimulate relationships between retailers and customers, increase purchases and provide customers with a sense of belonging as well as assist in enticing potential customers. Based on the empirical findings, the objectives of this study have been reached successfully. The study thus contributes to a deeper understanding of LPs and offer insight to retailers and entrepreneurs on the benefits of LPs towards customer loyalty. This is with the view that customer satisfaction is the bedrock of customer loyalty and their patronage is dependent on the value of LPs.

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CULTURAL PERSPECTIVES AND THEIR INFLUENCE ON RURAL ZIMBABWEAN FEMALE LEARNERS' PROGRESSION IN ADVANCED LEVEL SCIENCE SUBJECTS

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ABSTRACT

This paper focuses on gender inequality in rural female learners' progression in Advanced Level science subjects in rural secondary schools in Zimbabwe, and the influence of internalised cultural perspectives on the problem. This interest arose from the realisation of persistent gender inequalities, despite initiatives such as the Constitutional Amendments (No. 17 & 20), national gender, and affirmative action policies to close gender gaps. Of particular interest is that, despite all these efforts to set up sustainable environments for rural female learners' progression, the number of those progressing in Advanced Level science subjects are incomprehensibly low in rural secondary schools in Matabeleland North Province, Zimbabwe. Focusing on the voices of rural female learners, in this paper we critically look at the influence of cultural perspectives on their progression in Advanced Level science subjects. We viewed this study through a lens that integrates the feminist, social constructionist and symbolic interactionist lenses, applying a qualitative approach for an in-depth comprehension of the issues under investigation. For data generation, in-depth interviews with forty (40) purposively selected participants were conducted for the first author's PhD study, of which some are included in this paper. Content analysis of the data exposed that divergently lived experiences and customary ideals reinforce participants' dogmas with regard to assumptions on how rural females and males are supposed to behave. Furthermore, religious views seem to perform an imperative function in influencing the mindsets of young females, in line with the expected societal burdens. This generates a social scenario that tends to inhibit rural female learners' progression in Advanced Level science subjects. Hence, from rural female learners' perspective, inadequate and disproportionate progression in Advanced Level science subjects is affected by concerns of societal stigma, skewed power relations, and traditional and religious ways of life. Having a change of mindset that inculcates a gender-neutral and gender-sensitive approach to traditional and religious beliefs, social processes and power interactions through parenting and society are needed. Parents or guardians should be aware of oppressive practices within rural families and communities, create opportunities for encouragement, and empower rural female learners to study Advanced Level science subjects.

Keywords: Patriarchy, culture, rural female learner, gender equality;

1. INTRODUCTION

As in many parts of the world, in most African societies, children are open to customs and activities that inadvertently, intentionally and instinctively pass on accrued experiences and beliefs from one generation to another (Adefunke, 2015). Particularly in rural environments, females and males are susceptible to conflicting social dogmas and experiences, which contribute to the creation and imitation of socially biased practices (Juma & Simatwa, 2014; Mapuva, 2013). Roles are allocated to rural females and males, in harmony with what society deems suitable to their traditions (Thobejane & Khoza, 2014). This results in a situation where rural females have to adhere to patriarchal cultures, which create anxiety, thereby making it difficult to dislodge themselves from social disparities (Ncube & Mudau, 2017; Choo, Norsia & Tan, 2012). Often rural females comply with their socially accepted roles and responsibilities, such as that of bearing children, looking after the family, and being involved in domestic errands. Such patriarchal societies, as found in Zimbabwe, tend to sideline rural females by relegating them not only to background roles and responsibilities, but going further to view them as children or recipients (Ahmad & Najeemah, 2013; Mapuva, 2013).

Several studies (e.g. Kohli & Malthora, 2011; Alam, Roy & Ahmed, 2010; Jones, 2008; World Economic Forum, 2005) have uncovered multifaceted social norms and customs through which cultural settings perpetuate gender disparities in rural female learners' progression in education. This calls on societies through their education systems to provide rural female learners with an unambiguous platform to enhance their progression towards accomplishing gender equity in Advanced Level science subjects (Jones, 2011), specifically also in Zimbabwe (Chikuvadze, 2020). While several studies could be found, it became clear to the authors that the very people who are marginalised in society are also silent in research publications, and it appears that rural female learners' perceptions in respect of their progression in Advanced Level science subjects have received little scholarly thought (Mandina et al., 2013; Mutekwe et al., 2011). Thus, rural female learners' voice is reportedly missing in tackling their under-representation in Advanced Level science subjects (Chikuvadze, 2020; Chikuvadze & Matswetu, 2013).

It is against this background that the earlier-mentioned authors conclude that, as long as societies continue to be patriarchal, rural female learners' progression in education in general and Advanced Level science subjects in particular tends to be looked at through male lenses. This, therefore, creates a genuine need to petition for a profound and all-inclusive comprehension of how rural female learners' progression in Advanced Level science subjects intersects with their lived experiences (Mutekwe, Modiba & Maphosa, 2012; Muthukrishna, 2010). We opine that rural female learners should divulge their narratives by acknowledging the persistent influence of gender inequalities on their position in society. This leads to the comprehension of social structures that advocate their subservience in relation to progression in education (Seshamani & Shalumba, 2010; Favara, 2012). In this context, we pose the following research question: *How do cultural perspectives influence rural female learners' progression in Advanced Level science subjects?* We therefore sought investigate the intricacies integral to rural female learners' lived experiences in a patriarchal context from a feminist, social constructionist and symbolic, interactionist perspective (Moyo & Perumal, 2019; Chiweshe 2018; Howarth & Andreouli, 2014; Muchinako, 2013; Kirai & Kobia, 2012). These acted

as the abstract basis for comprehending how rural female learners links their ambitions regarding Advanced Level science subjects with their gendered identity.

2. METHODOLOGY

We took a qualitative approach in generating, analysing and presenting data (Mareva, 2014), considering how marginalised participants in their settings construe their lived experiences. We did this from a transformative standpoint, calling for the persistent change of oppressive cultural norms (Mertens 2015; Merriam, 2009). This enabled us to do self-introspection and to interface with the disadvantaged; to be more mindful of the predominant power relations in a patriarchal society (Mertens, 2009). It was imperative to establish a rapport with the participants to gain an enhanced comprehension of their lived experiences concerning the issues under study (Mertens, 2008). Against background, group discussions were used to gather participants' views and experiences (Dzvimbo et al., 2010) about the issue under investigation. The data generation took place in an informal setting through group interactions regarding information on specific topics. As a follow-up, personal interviews provided the opportunity to gain more insight into the interviewees' true reflection of their feelings and experiences about the issues under investigation.

In generating data using the above-discussed methods, forty (40) participants (rural female learners aged between 16 and 18) were purposively selected from those who were doing science subjects, as well as others doing other subject combinations at Advanced Level and who purported to be valuable sources (Tichapondwa, 2013) for the first author's PhD study. To have access to the participants, we obtained the relevant ethical clearance from the Ministry of Primary and Secondary Education, Zimbabwe, as part of an advance protocol to conduct this study at the selected rural secondary schools. Data generation through personal interviews and focus-group discussions commenced by assuring participants that their responses would be treated with the strictest confidentiality. In maintaining privacy and anonymity each participant was allocated a pseudonym in the form of a random number (Muzingili & Muchinako, 2016; Merriam, 2009). We informed participants' parents and guardians about the purpose of the study in a bid to obtain their consent for their children to participate in the study. and in turn we requested assent from the children to be included. The qualitative data gathered were analysed through content analysis where findings were presented in a narrative form in themes, which imitated the study focus (Akida, Ali & Karama, 2018; Janks, 2012). Thus, it enabled us to unpack the emerging themes pertaining to the influence of traditional and religious beliefs on rural female learners' progression in Advanced Level science subjects.

3. FINDINGS AND DISCUSSION

We realised from the onset that, as one grows up, a person is likely to be indoctrinated with specific traditional customs. Therefore, culture, in this case, is viewed as being exclusively societal and imparted amongst rural female learners for the perceived benefit of a given social order. It is against this background that, in this study, we considered culture as entailing all those ideas that pertain to particular societal anticipations, customs and ethics that are passed on from one generation to the next in the course of societal interaction. A number of issues manifested during the interactions with the

participants through focus-group discussions and personal interviews. These issues illustrated by direct quotations to justify the arguments brought about by participants.

Rural female learners' traditional beliefs and their influence on progression in Advanced Level science subjects

Against male-dominated backdrops, Zimbabwe, like any other sub-Saharan African nation, has passionate beliefs and customs likely to influence rural female-male communications (Matswetu & Bhana, 2018; Manwa, 2014). Thus, in a gendered society, language can be used to perpetuate the existing rural female (as dependents) and male (a those who govern) link through the conventional beliefs (Mitra & Sigh, 2007). Within this setting we took into account the issue of belief systems held by the society under study. This guided our insight into the fact that each society has its own culture; hence, the need to open up about participants' perspectives relating to how their society defines femininity and masculinity. Consequently, femininity and masculinity in the customary perspective can be reflected upon as the source of society's comprehension of appropriate behaviour by rural females and males, respectively. This called us to consider society as a dynamic institution through which the meaning of 'things' could be determined by investigating the social roles female-male interactions in a specific society (Alver & Calgar, 2015). In this regard, one rural female learner was invited inform us about some of the customs and ideals according to their traditions that define femininity:

I regard docility, obedience, kind-heartedness, co-operative, loyalty, sense of indulgence, humbleness, honesty and consideration as some of the customs and beliefs that define femininity in our society. (Interviewee 14)

The society, from the participant's perspective, is driven by various customs and beliefs, the origins of which she did not know. This reflects how rural societies stick to their beliefs that lean towards rural females' subservient stance in decision-making matters relating to their progression in life in general, and education in particular. The above response is a clear indication that the participant was a conscious agent of recognized gender-related behaviour, attached to a given mode of communication. The values and traditions which the participants hold on to are considered an upshot of the need for them to fit into their society's patriarchal customs and practices (Mwanza, 2015). Rural societies have indeed conceded that these beliefs lead to girls being socialised to take over any female obligations in the case of a mother's demise. In this way, the mother-daughter connection provides fertile terrain for the spreading of anticipated feminine comportment, with minimum interrogation of these, even in cases where they are perceived to be constructive or adverse (Melkizedeck et al., 2017). Thus, these customs and belief systems influence how females in rural settings understand any cultural stressors linked to gender and act on them in a socially established way (Scheiner & Willig, 2008). On the other hand, one participant gave the following account on norms and values that circumscribe masculinity from her own lived experience in the society under investigation,

In our community, masculinity can be defined by values such as accountable, hardworking, decision making, fearless, love and front-runner. (Interviewee 6)

The response from this participant (cf. Interviewee 6) are aligned with female learners' anticipated roles and obligations in a patriarchal society (cf. Interviewee 14). Indeed, rural females and males are socialised according to established customs from a young age, with the latter being taught to be aggressive and envisaged to do extremely well in more meaningful activities such as progression in Advanced Level science subjects (Kolawale in Gasva, & Moyo, 2014). From this, we therefore resumed that femininity and masculinity are well embedded in cultural relationships, influencing the formation of rural females and males' personalities (Iwu & Azoro, 2017; Ngoshi, 2013). This includes the manifestation of patriarchal ideas, which have kept rural female learners in submissive positions, obstructing their progression in Advanced Level science subjects. This is in agreement with Muchinako (2013), who highlights gender roles as one of the peculiarities that present rural societies with a resigned status in a society differentiated along sex lines. In return, this influences how rural female learners and their mothers exchange some intangible legacies that curb their potential in academic undertakings such as progression in Advanced Level science subjects (Mawere, 2015; Losindilo, Mussa & Akarro, 2010). Thus these biased interactions may lead to a divergent social setup that disadvantages rural females (Casimir, Chukwuelobe & Ugwu, 2014). This gives rise to a scenario where rural female learners in their mindsets can regard themselves as being inferior, resulting in them not feeling at ease to be associated with the so-called academically exigent Advanced Level science subjects.

From the previous articulations, we therefore considered society in this case as having the primary interest of endowing adolescents (boys and girls) with pertinent ideas and compulsions for their moral well-being. Thus, from a patriarchal perspective, it is the family or community's concern to create an unchallenged environment for both rural females and males to exist according to set customs (Wood, 2009). The sentiments expressed by one of the participants concur with the opinion expressed above,

According to our customs, it is the burden of mothers and aunties to deal with issues to do with girls. So, I don't want to interfere much with their obligations. (Father A)

From the earlier discourse, we noted that social roles were the focus on how the societal chain of command determines the allocation of responsibilities, resulting in the maintenance of the patriarchal status quo. Hence rural females under this thrust are inculcated with subservient influences, resulting in them having less inner self-belief to have the ambition to progress in so-called masculine spheres of life (Nwakego, 2014). In this case, rural females, through sex role socialisation, are handled in a different way, taking into account societal expectations (Manwa & Motsi, 2010). It is in this context that these social interpretations are perceived to influence how rural males are restricted to mostly the so-called thought-inciting and physically challenging activities, with rural females being almost sentenced to a future of domestic drudgery (Amao & Gbadamosi, 2015; Gudyanga, 2014). In line with the above discourse, one participant voiced the following on parent-female children interaction:

It is hard for me to chat with my father on issues to do with career choices as he always claims to be tied up with gardening activities. At times he refers me to my stepmother who instantly to say she doesn't know anything about career choices. I wish my dad can afford me an opportunity to discuss with me as he at all times does with my brothers. (Focus Group Discussion Participant 1)

We noted from the participant's sentiments that there existed an empathetic father-son child relationship, which created a gap between the boy child-girl child, with the latter losing the sense of belonging, resulting in the girl child internalizing low self-esteem and ultimately feeling inferior in the family setup. This is a clear indication of how failed parenting and expectations of a father to his girl child can influence her decision-making process negatively about various spheres of life such as progression in Advanced Level science subjects. In support this, one of the interviewed rural female learners reported,

In our custom, females have duties like doing household chores, such as taking care of kids, teaching them family norms, cooking, washing and taking care of the sick, with males performing outside undertakings like driving livestock, hunting. It can be noted that elders do not take on any interrogations as to why females perform this function and not that, let alone undertaking masculine activities at home. If you ask a lot of questions along with sex-related roles you will be branded an ill-mannered someone. (Interviewee 35)

In light of the previous account (cf. Father A), we figured out that male siblings had better chances of networking with their fathers who, from a patriarchal mindset, can guide their decision making in terms of career choice. This coincides with one female participant (cf. Interviewee 35), who highlighted a scenario within the patriarchal family setup where rural female and male siblings are socialized according to their customary belief systems. Within this context, we figured out that, in line with their cultural dogmas, obligations were allocated in harmony with whether one was female or male. With this form of socialisation, female siblings tend to accede to the existing form of roles and obligations, not interrogating much of their authenticity. Within such a scenario we can therefore argue that rural female learners' inferiority can be seen as an integral part of the informal education to which they are exposed from childhood to adult life in a patriarchal society, resulting in limited progress in discontinuing the existing gender gap (Akanbi, 2012; Jennings & Bosch, 2011). This creates high chances of the existence of a gendered interactive gap between fathers and their daughters, due to male dominance and this depressingly influences the latter's self-assurance to progress with the so-called 'masculine' subjects (Chinyoka & Naidu, 2014; Farre, 2012; Jones, 2011). From this, we bring forward the argument that, due to these societal interactions, rural female learners are indoctrinated into accepting their customarily sanctioned subservient standing in society, which limits their progression in the so-called 'masculine' science subjects at Advanced Level in selected rural secondary schools.

Religious beliefs and rural female learners' progression in Advanced Level science subjects

In a bid to have a holistic argument on the influence of cultural factors on rural female learners' progression in Advanced Level science subjects, this section will look at the issue under discussion from a religious perspective. Thus, we next centre the discourse on how the religious belief system has contributed towards the existing gender inequalities in society in general, and science subjects in particular. In this context, it is imperative to note with concern the perception in most patriarchal societies, as articulated in the biblical story of creation in Genesis, that God had ordained and reinforced females' inferior and subservient position to males (Ani, 2013). Hence, religious beliefs, in this case, were taken to play a vital role in persuading rural females' responsibilities in society

(Colulota, 2007). This contention is supported by Maposa and Mugabe (2013), and Chitando and Mateveke (2011), who view Christianity as a central character in the perpetuation of the belief that females should be engaged in submissive positions in a patriarchal setup. The afore-mentioned contention was reinforced by one participant who stated the following:

In our cathedral we are tutored that females ought to raise their children and work together with their families, with males being mannish, ready for action, should have strength and self-assured. In Genesis 3:16; Colossians 3:18 the woman is expected to submit to her husband. (Interviewee 27)

From the previous account (cf. Interviewee 27) it can be deduced that discrepancies in the form of feminine and masculine tasks are fostered from the family level per the religious expectations. These expectations are inculcated in young rural females from a tender age through interactions in churches and the acquired experiences are applied in their domains through adhering to their expected feminine responsibility (Jones & Somekh, 2006). It is hereby acknowledged that the religious code of belief is not 'toyed' around with, since it is taken as the centre around which their position in life revolve (Kubui, Athiemoolam & Mwaniki, 2014). This concurs with the notion brought forward by Msoffe (2016) and Rwafa (2016) that in each society feminine or masculine responsibilities are socially constructed through scriptures such as, for example Genesis, 1:26; Genesis 3:16; and 1 Corinthians 11:7-9. Consequently, some of the interpretations are used to substantiate the prevailing bias against female siblings in families (Casimir et al., 2014).

Under such circumstances, rural females tend to develop an awareness of their anticipated roles through their so-called *aunties* who act as 'value socializers' (Phukan & Saikia, 2017:31). In this context, we view religion as laying the foundation for the biased dogmas prevalent in their culture (Dodzo et al., 2016). We therefore argue that these religious interactions are used to strengthen the prevailing power relationships, ultimately influencing societal dogma towards gender-related norms and values. Therefore, this socialisation marks out femininity and masculinity, which consciously or unconsciously might be connected to stereotypic verdicts such as rural female learners categorized as lacking the ability to progress in the so-called *masculine* areas in life (Iwu & Azoro, 2017; Francis-Chizororo, 2010). This is reinforced by the existing hierarchical family orders under which rural females are indoctrinated from a tender age to adhere to the feminine expectations in society (Idang, 2015; Antia, 2005). This concurs with what one participant underlined during an interview (cf. Interviewee 27) that some religious groups tend to picture females as occupying submissive positions in the patriarchal society. These beliefs and setups in a society tiered along gender lines can be a source of anxiety, as these tend to prompt false impressions insofar as rural female learners' lack of ability to progress in Advanced Level science subjects. Based on this discourse, we argue that religious tenets in certain circumstances form the core in crafting gender-related indigenous responsibilities. These findings were underwritten by one participant who expressed personal experiences during interactions in church congregations. The participant had the following to say during a focus-group discussion,

At our congregation we hold meetings after the main service as girls with our 'auntie' with boys, on the other hand, having their indaba under the direction of their 'uncles.'

In these meetings, we are taught our responsibilities and how to dress decently to earn respect from the community. (Focus-Group Discussion Participant 9)

From the sentiments expressed above (cf. Focus-Group Discussion Participant 9), we argue that churches as social institutions form the starting points for gender inequality. In this regard, rural females are presented with religious models, which in turn can counter their progression in the so-called *masculine* areas (Biri & Mutambwa, 2013). These religious beliefs create a gap between rural females and males in their progression in various areas of life, ultimately condemning the latter to a subservient position. We noted that these religious beliefs are consciously or unconsciously passed on to schools, which form part of the greater community and are then entrenched in the structure of the former, thereby vindicating their side-lining in the so-called '*masculine*' subjects at Advanced Level. In line with this one participant reported,

In coming up with my subjects at form 5 (Biology, Chemistry and Statistics) I had a torrid asking myself whether as a girl I will be in a position to pull through. So to avoid regret when result come out I am interacting more with boys such that they help in Statistics and Chemistry, however, I am always jokingly reminded that this is a no 'go area for you, our sister'. (Interviewee 40)

From this account, we picked up that the participant, from the onset, had acknowledged that she was moving into a strange '*masculine*' area of study at the Advanced Level. In this regard, the participant construes and confers her lived experience in a patriarchal society in general and in science subjects in particular. We therefore argue that the participant's thoughts are an example of the acquired feminine identity, which presumes rural female learners' incompetence in '*masculine*' reputed knowledge areas. This concurs with Gudyanga (2016) and Asiegbu and Ezeugbor (2014), who express in their findings that unpremeditated customs give eminence to males' competence and dominance in various spheres of life such as education. In this case, these beliefs lead to rural female learners linking themselves with '*feminine*' career opportunities according to their contended capabilities from within their cultural perspective. This contention concurs with findings from studies by Graffin, Hutchins and Meese (2011); McKeon and Harrison (2010), which acknowledge that gender roles and obligations might influence a person's career prospects. In this regard, we noted from participants' expressed experiences that these cannot be detached from the culture that define who they are and ultimately influence their decision making whether to progress or not in Advanced Level science subjects. Hence, rural female learners need to contest the deep-rooted negative mindset, critical to their progression in Advanced Level science subjects.

4. CONCLUSION

From the discourse, it's crucial to comprehend that in a patriarchal society the family works as an agent through which rural female children assume their '*appropriate*' feminine roles. This is in the belief that females, through traditional and religious contexts and experience are indoctrinated to accept all that is said about their femininity to be '*correct*'. Therefore, this disadvantages rural female learners' decision making concerning progression in different spheres of life such as career progression. It is against this background that, from rural female learners' perspective, discrepancies

in their progression in Advanced Level science subjects are propped up by skewed power interactions, concerns of societal stigma, and traditional and religious ways of interaction. Having an altered mindset to inculcate a gender-neutral and gender-sensitive approach to parenting without demarcations along gender lines is recommended. Also, parents or guardians are encouraged to be conscious of oppressive customs within families and communities and initiate prospects for support and empowerment towards equality.

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TALENT MANAGEMENT, WORK ENGAGEMENT AND VOLUNTARY TURNOVER AT A NAMIBIAN FINANCIAL INSTITUTION

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ABSTRACT

The Namibian financial industry operates in a very competitive and unpredictable environment—one in which employers face limited availability of the specialised employee skills to perform the required operations effectively to achieve strategic objectives. The main objective of this research was to determine the relationship between talent management, work engagement, and voluntary turnover at a Namibian financial institution. A quantitative research approach was followed, with data gathered from employees at the institution ($n = 91$). Three measuring instruments—a talent management measure, the Utrecht Work Engagement Scale, and a voluntary turnover intention questionnaire—were administered. In general, it appears that participants were deployed in job positions aligned with their career choice, that respondents could associate themselves with the brand of their institution, and received adequate performance feedback. Although the respondents indicated moderate to high levels of work engagement, about half of them considered quitting their jobs. The results also showed that the employees perceived a lack of talent mindset, talent retention strategies, and inadequate compensation from their employer. Talent management, work engagement, and voluntary turnover were significantly related. This research emphasises the importance of adequately assembled talent management practices and strategies to enhance positive individual outcomes.

Keywords: financial institution, institutional performance, talent management, voluntary turnover, work engagement

1. INTRODUCTION

The importance of the financial and banking sectors to business and economic growth for any country cannot be overstated (Padhy & Panda, 2020). Talented employees, as strategic assets, are increasingly important for the financial industry as the business environment becomes more competitive, customer focused and service orientated (N. Ahmad et al., 2015). In order to survive in the competitive financial environment, banks, in particular, require competent employees who are effective and efficient in their work (Hemalatha & Nagajothi, 2018). Talent management practices can enable the required performance of banking employees, while also preventing counterproductive behaviours during adversity (Dang et al., 2020). The main objective of this research was to determine the relationship

between talent management, work engagement, and voluntary turnover of employees at a Namibian bank.

Namibia is a developing country that obtained independence from South Africa in 1991. According to Kandaswamy et al. (2018), Namibian banks are largely monopolistic, suffer from liquidity crises, and lack competitiveness due to reduced foreign investment. This problem is further heightened by severe skill shortages in the financial sector, jeopardising the economic growth targets set by the Namibian government to achieve the country's Vision 2030 (Muyoba, 2019). The recent United Nations Human Development Report improved Namibia's human development with a rank of 130 out of 189 countries (United Nations Development Programme, 2020). Unfortunately, the Global Competitiveness Report (Schwab, 2019) revealed that Namibia requires more improvement regarding future-readiness skills, with a ranking of 108 out of 141 countries in this aspect. Mujtaba and Mubarak (2021) opine that talent management strategies will give employees the talent acumen necessary to contribute to long-term economic growth and competitiveness.

This study focuses on work engagement and voluntary turnover intentions as possible outcomes of the talent management of banking employees. The emergence of the positive psychology movement encouraged researchers to focus more on positive individual traits rather than mental ill-being as pathological diseases (see Seligman, 2002). According to Rana et al. (2019), an engaged workforce is a beneficial source for any organisation. Gerber (2017) states that work engagement is essential for talent management, as an enthusiastic workforce promotes a faster financial growth rate in the banking sector. Employee retention is regarded as an economic stabiliser in the banking industry (Vasquez, 2014). According to a labour survey, the average labour turnover in Namibia's financial sector was approximately 8% in 2019, with most employee movement occurring in private sector institutions such as banks (PricewaterhouseCoopers, 2019). It is therefore important to understand the role of talent management as an opportunity or potential threat to employee retention in the Namibian banking sector. In the following sections, we present the theoretical foundation and hypotheses for this research.

2. LITERATURE REVIEW

Defining Talent and Talent Management

Chambers et al. first drew attention to the application of talent in the workplace in their 1998 article, "The war for talent." Dang et al. (2020) define talent in the banking context as acquired skills, learning ability, flexibility, technology, and adaptability of high performers and potentials. High performance (i.e., results) and high potential (i.e., competence) are key denominators for talent in private banks (Dang et al., 2020). How workplace talent is defined also determines how talent management practices are developed and implemented. Most talent management definitions focus on attracting, developing, and retaining talented employees (Barkhuizen & Gumede, 2021). Collings and Mellahi (2009) provide a more strategic viewpoint to talent management that alludes to key differential roles, talent pool development, and high-performing individuals for sustainable organisational competitive advantage. Talent management involves the alignment of talent with strategic business goals (Järvi & Khoreva, 2020). According to Tajuddin et al. (2015), talent management practice is a critical

enabler of human skills, translating into a compelling employee value proposition for banking employees.

Talent Management Practices

Talent management practices are vast and many. This section reports on the most prominent talent management practices emerging from literature: leadership talent mindset, organisational talent brand, talent onboarding and deployment, talent performance management and recognition, and talent retention strategies.

Leadership Talent Mindset: The commitment of leaders to talent management strategies, processes, and practices is the starting point for talent management (Barkhuizen, 2015). According to Welby-Cooke (2010), leaders must adopt the talent mindset, which believes that employees are valuable assets worth investing in to achieve business results. Leadership competence is critical in establishing an organisational talent culture underlined by success orientation and strategic direction, sound human capital practices, operational efficiency, effective administrative governance, dynamic operational capabilities, and ethical values (Masale et al., 2021). Ngwangwama et al. (2019) discovered that more humanistic-based, context-specific leadership and management practices are significantly associated with company effectiveness in Namibia.

Organisational Talent Brand: Employer branding is a critical strategic tool for recruiting and retaining high-potential employees in the current war for talent (Alves et al., 2020; Mihalcea, 2017). The employer brand fosters a cognitive and emotional bond between employees and the organisation to achieve success and gain a competitive advantage (Maurya & Agarwal, 2018). Aboul-Ela (2016) showed that four factors contribute to an effective talent brand for employers. The factors involve a combination of *bloom* (i.e., company website, vision, mission), *live* (i.e., supportive corporate culture, work–life balance, attractive rewards and benefits), *connect* (i.e., team spirit, management style, job–personality fit) and *grow* (i.e., career development opportunities, skill utilisation, job and task variety). The organisational and employment brands contribute to an organisation’s talent value proposition to attract and retain talent (Saurombe, 2017).

Talent Onboarding and Deployment: Talent onboarding and deployment are essential practices but often neglected in the talent management process (Barkhuizen, 2015). According to Salau et al. (2014), well-assembled induction programmes influence staff attitudes towards their employer. Induction programmes also lead to greater company identification and staff retention (Hendricks & Louw-Potgieter, 2012). Talent onboarding practices ensure that the person transitions successfully into their new role and that an optimal person–job fit is achieved (Mensah & Bawole, 2017). Person–organisation fit further contributes to employee satisfaction and organisational citizenship behaviour (Sharom, 2017).

Talent Performance Management and Recognition: Organisations appoint high-potential and high-performing talent as a source for competitive advantage and sustainable organisational performance (Al Rina & Atan, 2020). Performance management, therefore, acts as an essential tool for talent management (Babu & Suhasini, 2017). The proper implementation of talent management systems is necessary to enable talent performance (Mensah, 2015). Effective talent performance management

and appraisal systems keep talent committed to their jobs (Vural et al., 2012) and enhance the performance of banking employees (D. I. Ahmad et al., 2019). Performance rewards are an essential talent management strategy to attract and retain employee talent (Bussin, 2014). Narang and Sharma (2018) emphasise that a combination of monetary and non-monetary rewards promotes talent efficiency and productivity. However, Chiekezie et al. (2017) found that inadequate compensation policies fail to retain talented banking employees.

Talent Retention Strategies: Employee retention strategies contribute to employees and organisations' livelihood and sustainable performance (Swaroop & Sudhir, 2019). Proactive talent retention strategies are important to prevent the voluntary turnover of talented employees (Theron et al., 2014). Mokgojwa (2019) found that institutions in which frequent retention conversations with employees are neglected are at significant risk of losing talent. Therefore, leaders need to instil a talent culture that values talent and should invest in talent retention methods such as mentoring and partnering (Traveler, 2019). According to Iqbal (2010), organisations can retain their best employees by communicating clear expectations about rewards, the work environment, productivity standards, and by delivering on promises. Talent retention matters, as talent turnover leaves a vacuum for productivity and performance loss (Jiri & Žurková, 2013).

Positive Work-Related Outcomes of Talent Management: Work Engagement

Schaufeli and Bakker (2004) operationalise work engagement in terms of vigour, dedication, and absorption. Vigour represents the energy dimension of work engagement and shows an employee's energetic state to pursue goals irrespective of hardships. Dedication involves employees' enthusiasm and pride in their work. The absorption components reflect a sense of attachment and engrossment in which employees find it difficult to detach themselves from their job. Talent management is regarded as one of the most effective tools to ensure employees remain engaged in their work (Pandita & Ray, 2018). Talent management has been related to employee engagement in various banking sectors (see Kadiri & Jimoh, 2017). A study by Humaid (2018) showed that talent management factors such as talent attraction, talent motivation, talent development, and talent retention predicted employees' work engagement in a Palestinian bank. Anchu and Santhosh (2020) found that the employer brand (i.e., economic value, social value, developmental value, and reputation value) contributed to employee engagement.

H1: Talent management would be significantly positively related to work engagement.

Negative Work-Related Outcomes of Talent Management: Voluntary Turnover Intentions

Voluntary turnover occurs when employees search for alternative job opportunities out of their own choice (see Lee, 2011). Amori and Becky (2020) found that talent management practices, such as training and development and compensation, contributed to the employee turnover in the Nigerian banking industry. Kakar et al. (2018) showed that empowerment, compensation, training, and performance appraisal systems contributed significantly to employee retention in selected Saudi Arabian banks. Dwomoh and Frempong (2017) found that a great variety of factors, such as compensation and rewards systems, work-life balance, institutional image, favourable work environment, job tenure, institutional values and beliefs, fair people management practices, and good

work relationships, mattered for the retention of employees in Ghana's banking industry. A study by Kaizemi (2017) showed that inadequate remuneration structures, lack of training, and poor employee recognition contributed to the turnover of skilled employees in a Namibian bank.

H2: Talent management would be significantly negatively related to voluntary turnover intentions.

The Intervening Role of Work Engagement in the Talent Management–Talent Retention Relationship

The mediating-moderating role of work engagement is well established in psychology literature. Work engagement is beneficial to prevent pathological disease (e.g., burnout, stress, depression) in adverse work environments (Demerouti, 2008). The intervening role of work engagement in the talent management–voluntary turnover intentions relationship is limited and inconclusive. Shabaan (2018) found that employee engagement mediated the relationship between talent management and retention. A meta-analysis by Pandita and Ray (2018) also supported the mediating role of employee engagement in the talent management–retention relationship. Research by Hamid and Yahya (2016) showed that work engagement mediated the relationship between person–job fit and employee retention.

H3: Work engagement mediates the relationship between talent management and voluntary turnover intentions.

3. METHODOLOGY

Research Design

A quantitative research design was chosen, considering the purpose of the study, namely, to identify the relationship between talent management, employee engagement, and voluntary turnover. Quantitative research is a formal, objective, systematic process that uses numerical data to learn about the world. This method was used to describe variables and investigate relationships between variables (Field, 2019).

Sampling Method

The target population consisted of head office employees of a commercial bank in Windhoek, Namibia. A total of 91 hard-copy questionnaires were distributed, all of which were returned and were suitable for further analysis. The majority of respondents (53.8%) were female, between the ages of 24 and 40 (73.6%), and Afrikaans speaking (47.3%). Most of the respondents had a bachelor's degree, had worked in the organisation for between 0 and 5 years (40.7%), and had been employed in their current jobs for between 0 and 5 years (40.7%). Most participants had never been promoted (31.9%) and worked 40 hours per week (63.7%). Ethical approval was obtained before the commencement of the study. The confidentiality of the respondents was maintained at all times.

Research Instruments

Three questionnaires were used to collect the data for this study: A talent management measure consisting of an adapted Human Capital Measure (Human Capital Institute, 2008) and Job

Characteristics Inventory (Barkhuizen, 2005), the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003), and the Employee Retention Questionnaire (Barkhuizen, 2018a).

Talent Management: The talent management instrument consisted of 39 items and measures eight talent management practices: staffing, talent brand, talent onboarding and deployment, talent mindset, career development, talent retention strategies, performance management, and compensation. Respondents were required to indicate their responses on a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*disagree*). The content validity of the questionnaire was established. The reliability of the questionnaire will be determined in the present study.

Work Engagement: The UWES consists of 17 items and measures three dimensions: vigour, dedication and absorption. The questionnaire showed acceptable internal consistencies in several South African studies (see Bell & Barkhuizen, 2011).

Intention to Quit: The Employee Retention Scale consists of six items and measures employees' intentions to quit the organisation. Responses are collected on a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*disagree*). Barkhuizen and Gumede (2021) obtained a reliability score of .921 for the measure.

Data analysis

The researchers used SPSS to perform the statistical analyses. Descriptive statistics (i.e., frequencies, means, standard deviation, skewness and kurtosis) were applied. Exploratory factor analyses were used to determine the underlying factor structure of the three measuring instruments. The reliabilities of the factors were determined using Cronbach's alpha ($\alpha \geq .70$; Cohen, 1988). Correlation analyses and multiple regression analyses were used to test the hypotheses. The cut-off points for significance are as follows: $r \leq .29$, $p \leq .05$ (statistically significant); $.30 \leq r \leq .49$, $p \leq .05$ (practically significant, medium effect); and $r \geq 0.50$, $p \leq .05$ (practically significant, large effect). The guidelines of Baron and Kenny (1986) were used to determine the mediating role of work engagement between talent management and voluntary turnover intentions. Three steps are involved: determining first, the relationship between the predictor and dependent variable; second, the relationship between the mediator and dependent variable; and third, the relationship between the predictor, mediator, and dependent variable. Complete mediation occurs when the independent variable no longer affects the dependent variable. Partial mediation occurs when the independent variable's influence on the dependent variable is reduced when controlling for the mediator.

4. RESULTS AND DISCUSSION

Factor and Reliability Analyses

The results of the factor and reliability analyses are presented below.

Talent Management: A principal component exploratory factor analysis using varimax rotation resulted in six factors for the talent management measure (KMO = .850; $p = .001$), which explained 69.049% of the total variance. The six are Talent Deployment (Factor 1), Talent Retention Practices (Factor 2), Talent Brand Identity (Factor 3), Talent Mindset (Factor 4), Talent Performance

Management (Factor 5), and Talent Compensation (Factor 6). Five items were removed because of problematic loadings; all remaining items had acceptable loadings.

Work Engagement: A principal component exploratory factor analysis using varimax rotation yielded three factors for the Utrecht Work Engagement Scale ($KMO = .897$; $p = .000$), explaining 71.24% of the total variance. The three factors are as follows: Dedication (Factor 1), Vigour (Factor 2), and Absorption (Factor 3). One item was removed because of problematic loadings. All of the remaining items had acceptable loadings.

Intention to quit: A principal component exploratory factor analysis resulted in one factor for the talent retention questionnaire ($KMO = .851$; $p = .000$) that explained 62.505% of the total variance. The variable was labelled Voluntary Turnover Intentions. All of the items had acceptable loadings.

The descriptive statistics and reliabilities of the measurements are reported in Table 1.

Table 1. Descriptive Statistics of the Measurements

| Variable | Mean | Std. Deviation | Skewness | Kurtosis | α |
|------------------------------------|--------|----------------|----------|----------|----------|
| Talent Management Practices | | | | | |
| Talent Deployment | 4.1287 | 1.11860 | -0.754 | -0.114 | 0.906 |
| Talent Retention Practices | 3.5000 | 1.17260 | -0.252 | -0.646 | 0.869 |
| Talent Brand Identity | 4.2821 | 0.95118 | -0.881 | 1.130 | 0.876 |
| Talent Mindset | 3.7005 | 1.19037 | -0.463 | -0.571 | 0.876 |
| Talent Performance Management | 4.0440 | 1.06432 | -0.949 | 0.624 | 0.803 |
| Talent Compensation | 3.8095 | 1.08542 | -0.585 | -0.169 | 0.682 |
| Work Engagement | | | | | |
| Dedication | 4.0571 | 1.33975 | -0.865 | 0.775 | 0.921 |
| Vigour | 3.8260 | 1.04495 | -0.634 | 2.127 | 0.874 |
| Absorption | 4.0242 | 1.21941 | -0.646 | 0.730 | 0.878 |
| Turnover Intentions | | | | | |
| Turnover | 3.0476 | 1.17570 | 0.392 | -0.110 | 0.878 |

The results in Table 1 show that the measurements have acceptable to excellent reliabilities. The average scores would suggest that talent management in banking institutions is still in its early stages. The results revealed a relatively low Talent Mindset. Leaders' talent mindsets are the driving forces behind developing and implementing talent management practices in the workplace (Masale et al., 2021). Leadership mindsets are critical for developing context-specific Namibian talent management practices for individual performance and institutional efficiency (Ngwangwama et al., 2019). The results further showed that Talent Retention Strategies for banking employees are underutilised. Mokgojwa (2019) mentioned that banking institutions risk losing competent employees if they neglect opportunities to have meaningful talent retention conversations with their workers. More seriously, an organisation's existence and sustainable performance are threatened when talented

individuals feel undervalued and leave (Swaroop & Sudhir, 2019). The participants in the study furthermore highlighted that they considered Talent Compensation to be inadequate. Compensation and rewards are vital in attracting and retaining talent and improving performance (Bussin, 2014; Narang & Sharma, 2018). In terms of factors that emerged more positively, participants mostly appeared to be deployed in a job aligned with their career choice (Talent Deployment). They could also associate themselves with the brand of their institution (Talent Brand Identity). These results confirm that sound talent deployment practices allow for a better person–job fit in the institution and a more effective transition into an employee’s new work role (Mensah & Bawole, 2017; Sharom, 2017). The respondents’ positive perceptions of the banking brand indicated that employees could connect with their institution, which is critical for success and competitive advantage (Maurya & Agarwal, 2018).

The respondents reported moderate to high levels of Vigour, Dedication and Absorption. In line with the work engagement theory of Schaufeli and Bakker (2004), employees felt energised by their jobs and a strong sense of emotional attachment to their daily tasks. Highly engaged employees are vital for the financial success of banking institutions (Gerber, 2017). However, despite the relatively high levels of work engagement, almost half of the respondents in this study considered quitting their jobs. These findings are concerning because Namibia’s financial sector already suffers from a severe shortage of talented employees, making it even more difficult for the country to achieve its strategic objectives (Muyoba, 2019). As mentioned by Jiří and Žurková (2013), the departure of talent from an organisation leaves a significant productivity and performance vacuum.

Hypothesis Testing

The results were further explored by testing the interrelationships between talent management, work engagement, and voluntary turnover intentions of banking employees. Pearson correlation analyses and multiple regression analyses were applied. For the purpose of the multiple regression analyses, a second-order factor analysis was done to create one variable for talent management (Total variance explained = 52.983%; $\alpha = 0.82$) and one variable for work engagement (Total variance explained = 79.091%; $\alpha = 0.863$). The results of the Pearson correlation analyses are reported in Table 2.

The results in Table 2 show that all talent management practices except for Compensation are significantly related to the Dedication dimension of work engagement. The effects of Talent Deployment were significant, while the effects of Talent Brand Identity were moderate. Except for Compensation, all talent management practices are significantly related to the Vigour dimension of work engagement. The effects for Talent Deployment, Talent Brand Identity, and Talent Mindset were medium. Absorption is significantly related to Talent Deployment, Talent Brand Identity, and Talent Mindset. The effects for Talent Deployment and Talent Brand Identity are medium. Combined, the results showed that Talent Deployment, Talent Brand Identity, and Talent Mindset are mostly related to the three dimensions of work engagement. The results support the assertion of Anchu and Santhosh (2020) that a reputable employer brand enhances the work engagement of banking employees. Therefore, talent management can be a valuable tool to improve work engagement in the banking sector (see Pandita & Ray, 2018). The above results partially confirm Hypothesis 1 (talent management is significantly related to work engagement).

Table 2. Pearson Correlation Analyses Between Talent Management, Employee Engagement and Retention

| Variable | Talent Deployment | Talent Retention Practices | Talent Brand Identity | Talent Mindset | Talent Performance Management | Talent Compensation | Dedication | Vigour | Absorption |
|-------------------------------|-------------------|----------------------------|-----------------------|----------------|-------------------------------|---------------------|------------|---------|------------|
| Talent Deployment | 1 | | | | | | | | |
| Talent Retention Practices | .412** | 1 | | | | | | | |
| Talent Brand Identity | .426** | .414** | 1 | | | | | | |
| Talent Mindset | .502**+ | .370** | .597**+ | 1 | | | | | |
| Talent Performance Management | .437** | .515**+ | .454** | .432** | 1 | | | | |
| Talent Compensation | .350** | .349** | .359** | .415** | .483** | 1 | | | |
| Dedication | .504**+ | .240* | .423** | .294* | .244* | .112 | 1 | | |
| Vigour | .328** | .258* | .495** | .362** | .278** | .177 | .697**+ | 1 | |
| Absorption | .408** | 0.189 | .369** | .257* | 0.114 | 0.140 | .710**+ | .651**+ | 1 |
| Turnover | -.310** | -.412** | -.466** | -.349** | -.311** | -.358** | -.367** | -.380** | -.208* |

* statistically significant, $p \leq 0,05$; ** practically significant, medium effect; **+ practically significant, large effect

The findings also revealed that all talent management practices are significantly negatively related to banking employees' voluntary turnover intentions. All of the effects are medium. The results support previous research that talent management practices (i.e., talent deployment, talent retention practices, talent brand, talent mindset, talent performance management, and compensation) can contribute significantly to banking employees' voluntary turnover intentions (see Amori & Becky, 2020; Dwomoh & Frempong, 2017; Kakar et al., 2018). Mediocre applications of talent management practices are therefore likely to escalate voluntary turnover intentions. Long-term performance and competitiveness in the banking sector are dependent on talented employees (Dang et al., 2020; Hemalatha & Nagajothi, 2018). No institution can survive without well qualified and skilled employees. Therefore, the investment in talent management strategies for the banking sector is imperative (Mujtaba & Mubarak, 2019). The above results confirm Hypothesis 2 (talent management is significantly negatively related to voluntary turnover intentions).

The results of the mediation analyses between talent management, work engagement, and voluntary turnover intentions are reported in Table 3. Multiple regression analyses were applied.

Table 3. Mediation Analyses: Talent Management, Work Engagement and Voluntary Turnover Intentions

| | Unstandardised Coefficients | | Standardised Coefficients | | Sig. | R | R ² | ΔR ² |
|--|-----------------------------|------------|---------------------------|--------|-------|------|----------------|-----------------|
| | B | Std. Error | Beta | t | | | | |
| Step 1: Talent management and voluntary turnover intentions | | | | | | .503 | 0.253 | 0.245 |
| (Constant) | 5.950 | 0.539 | | 11.045 | 0.000 | | | |
| Talent management | -0.742 | 0.135 | -0.503 | -5.497 | 0.000 | | | |
| Step 2: Work engagement and voluntary turnover intentions | | | | | | .356 | 0.127 | 0.117 |
| (Constant) | 4.599 | 0.447 | | 10.282 | 0.000 | | | |
| Work engagement | -0.130 | 0.036 | -0.356 | -3.591 | 0.001 | | | |
| Step 3: Talent management, work engagement and voluntary turnover intentions | | | | | | .525 | 0.276 | 0.259 |
| (Constant) | 6.253 | 0.564 | | 11.077 | 0.000 | | | |
| Talent management | -0.634 | 0.149 | -0.430 | -4.258 | 0.000 | | | |
| Work engagement | -0.061 | 0.037 | -0.166 | -1.646 | 0.103 | | | |

The results of the mediation analyses in Step 3 did not reveal a non-significant relationship between talent management and voluntary turnover intentions while controlling for work engagement as the mediator. In Step 3, adding work engagement as a mediator variable did not reduce the total variance explained. As a result, work engagement does not mediate the relationship between talent management and voluntary turnover. As a result, Hypothesis 3 (work engagement mediates the relationship between talent management and voluntary turnover intentions) is rejected. These results contradict previous studies asserting that work engagement mediates the relationship between talent management and voluntary turnover (see Pandita & Ray, 2018; Shabaan, 2018).

5. CONCLUSION

The banking sector is critical to a country's economic viability. Talented individuals are essential to achieving banking institutions' strategic goals. Institutions have a responsibility to enable a talent management culture that fosters positive emotions such as work engagement and, as a result, prevents voluntary turnover intentions. Banking institutions in developing countries can benefit from this study's findings by recognising the value of talent and the talent management foundations required for positive individual and institutional outcomes. First, the banking industry must adopt a talent mindset to ensure that banking talent is valued and appropriate talent management practices are implemented. Second, banks should concentrate on creating a comprehensive rewards model that will attract and retain talent. Finally, financial institutions can invest in creating fair, equitable, and well-

designed performance management processes and systems to sustain individual and institutional performance.

There were some limitations to this study. First, the sample was restricted to a single banking institution. As a result, the findings cannot be generalised to other financial institutions. Second, the researchers could not determine differences in talent management, work engagement, and talent retention based on demographic characteristics due to the small sample size. Third, the scarcity of talent management research in the banking sector worldwide posed a challenge to interpreting the findings. Given the significance and importance of banking for a country's economic welfare, future research can expand talent management research in the financial sector. Future research could also use mixed methods approaches to elicit possible explanations for quantitative results; for example, despite having relatively high levels of work engagement, more than half of the respondents in this study considered leaving the institution. Follow-up interviews can assist in explaining these findings.

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EXPLORING LEADERSHIP MINDSET AND READINESS FOR DIGITAL TRANSFORMATION IN THE RETAIL BANKING SECTOR

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ABSTRACT

The retail banking sector in South Africa is experiencing challenges as a result of the increased digitisation of the banking system. New leadership mindsets and increased understanding of digital transformation could help bank leaders adapt and keep up with recent trends in their industry. The study aimed to explore leadership mindset and readiness for digital transformation in the retail banking sector in South Africa. The study utilised a qualitative research approach. The nature of the study was exploratory. Purposeful sampling was used to sample 12 research participants. Data was collected using semi-structured interviews. Collected data was thematically analysed using Ricoeur's theory of interpretation and member checking. Bank leaders cited the importance of a learning mindset, entrepreneurial mindset, positive mindset, flexible and agile mindset, and inclusive mindset where team members' opinions are encouraged and valued for the organisation's success. Bank leaders indicated that the acceptance and use of digital technologies in retail banking had become the new normal and retail banks were already getting the team equipped through training and development. Bank leaders should embrace effective leadership styles such as transformational, value-based, and shared leadership styles where team members' ideas are valued and continuous learning and innovation are encouraged.

Keywords: digital transformation; leadership; leadership mindset, leadership readiness and retail banks

1. INTRODUCTION

Organisational leaders continue to face new and complex challenges as a result of an increasingly interconnected global economy, talent migration, and continuous technological revolution (Baltzley, Lash, Dai & Kwok, 2018:1). According to Van Wart (2013:555), organisational leaders worldwide are dealing with overwhelming challenges such as leading organisations through transformation. Leading organisations through transformation is no longer about addressing straightforward technical problems with straightforward technical solutions but rather about managing uncertainties,

ambiguities, complexities, and significant disagreements about the need for transformation, the areas to be transformed, and how the transformation will be carried out (Bouckaert & De Vries, 2013:8).

Organisations undergo fundamental transformations as a result of digital technologies, which range from disrupting business models and value creation to altering how organisational members work, communicate, and collaborate: Cloud and mobile computing, big data analytics, knowledge-sharing platforms, and corporate social networks are all now commonplace in many organisations (Colbert, Yee & George, 2016:731-739). According to Parviainen, Tihinen, Kääriäinen, and Teppola (2017:63-77), the retail banking sector was not immune to the digital technologies causing significant changes in almost every sector of the economy. Increased financial sector competition from traditional and new competitors (fintech and big tech) adds multiple pressures. Unprecedented challenges in the banking sector were expected to become a common occurrence in the future. Globally, the banking industry is under attack from a variety of directions, including cyber risk and the emergence of new competitors who use more agile systems while cutting expenses such as infrastructure and human capital (Grosskopf, Beyers, Van Velden, Roopnarain & Stonebridge, 2016:1)

According to Ready, Cohen, Kiron, and Pring (2020) customers' behaviours, values, and interactions with organisations have changed as a result of technological advancements. The changing values and behaviours of customers present a challenge for leaders to adapt to keep up with changing needs, values, and customer behaviour. As a result of the changes brought about by digital transformation in the retail banking sector, leadership procedures and rules are being rewritten, necessitating new leadership approaches in which all-knowing and invincible leaders may no longer be relevant. According to Mikalef, Pappas, Krogstie, and Giannakos (2018:547-578), leadership mindset is critical in digital transformation. Even though many organisations implement big data projects, most leaders are not used to making decisions based on information capabilities. According to Kramer (2016:31), organisational leaders, required a new type of consciousness, a higher level of mental understanding, to deal with the increased level of complexity. Leaders needed to generate new mental capabilities (mind maps), new ways of seeing and understanding in real time, moment by moment, and be innovative in the face of prevailing knowledge.

According to Hopton, Barling, and Turner (2013: 4-19), business sustenance and success in a changing business environment necessitated adaptive and capable organisations capable of pursuing measures that would cause them to thrive. To manage the organisational changes associated with digital transformation, organisational leaders must be adaptable and flexible in order to respond to the complexities appropriately. In addition, change management necessitates appropriate leadership mindsets and skills (Markham, 2012: 1134-1151). According to Belle (2014:19), organisational success, including the ability to manage change effectively, was critical to organisational leadership, and leaders needed the ability to develop strategies and plans.

The study aimed to explore leadership mindset and readiness for digital transformation in the retail banking sector in South Africa. While there has been a lot of research on leadership and digital transformation, there hasn't been much on leadership mindset and readiness for digital transformation in retail banking in South Africa. The available literature is still very fragmented. The study's

significance and relevance recognise the importance of technical and administrative skills in managing organisations; organisational leaders should focus more on transforming mindsets to successfully lead organisations through digital transformation (Day, Harrison & Halpin, 2009: 123). The study findings will contribute to the body of knowledge and assist retail bank leaders and other stakeholders in making evidence-based decisions relating to digital transformation.

2. LITERATURE REVIEW

Leadership Mindset

According to Garvey Berger and Johnston (2015:178), there is no shared or universally accepted definition of mindset in psychology or neuroscience. For this study, mindset refers to a global perspective, mental model, or set of beliefs and conventions that individuals have about themselves, their organisations, and the challenges they face. Thus, mindset is composed of mental models. Furthermore, mindsets are the mental rules or neuronal programs that shape how people think. In most cases, mindsets frame the world unconsciously and are invisible but extremely important to people's thinking and behaviour.

According to Walter (2016: iv), mindsets are beliefs about leadership; for some, leadership is a skill or ability that one is born with and cannot be changed or improved. Others described leadership as a skill that can be changed or improved through hard work and effort. Dweck's implicit self-theory (1986, cited by Walter, 2016:2-4) was used as a point of reference in this study to investigate the origin and extension of leadership mindset into the study of leadership. The theory's conclusion suggested that when the belief is applied to leadership, fixed or incremental belief about one's leadership ability influences the degree to which leadership is advanced. Furthermore, implicit self-theory findings suggested that mindset was one factor that could influence the level and extent of leadership development and learning (Walter, 2016:2-3).

Several distinct sets of mindsets considered to affect leaders' ability to engage with others, navigate change more successfully, and perform in their leadership roles more effectively were identified from research across the social sciences to understand different mindsets in leadership, as follows: Growth mindsets, learning and performing mindsets, inclusive mindsets, deliberative mindsets, agile mindsets, enterprise mindsets, and connector's mindset are all examples of mindsets (Gottfredson & Reina, 2020).

Growth Mindsets: Individuals with a growth mindset believe that they can change their talents, abilities, and intelligence. Individuals with a growth mindset are thought to be more mentally prepared to approach and tackle challenges, to take advantage of feedback, to use the most effective problem-solving strategies, to provide developmental feedback to subordinates, and to be persistent and hardworking in achieving goals (Gottfredson & Reina, 2020). Clark (2019:4) asserts that leaders with a growth mindset consider the strengths of others and understand the team's skills and interests, which allows them to assign responsibilities to the person best suited for the job. Leaders who are aware of their team members' values can better consult with and retain them. The first step is to believe that people can learn, grow, and expand their skills. According to Juo (2020), individuals with a growth mindset enjoy challenges, strive to learn, and consistently see the potential to develop a new

set of skills. In today's world of work, where leaders face many challenges, such as new technological developments changing the nature of work, an openness to learning and discovery is deemed essential. Swift et al. (2018:6) stated that 'born' digital leaders could be narrowly specialised at times and that organisations should consider cultivating a growth / incremental mindset in their people. Leaders with an incremental mindset include innovative, agile, and who leverage diversity through inclusion. They are no longer a "nice to have" in organisations; rather, the digital landscape necessitates that organisations invest more in developing leaders with an incremental mindset.

Inclusive Mindset: The inclusiveness that a leader brings to a team fosters a psychologically safe environment in which all perspectives are valued and supported (Clark, 2019:7-8). According to Ready (2019), leaders with inclusive mindsets are constantly experimenting and learning new things by listening to various voices. An inclusive mindset promotes risk-taking without fear of failure and an inquiry mindset about how new forces shape the competitive environment. To some extent, an inclusive mindset is regarded as a feature of an incremental mindset. Leaders with an inclusive mindset, like those with an incremental mindset, are curious, creative, and perform well amid ambiguity (Glessner, 2004).

Agile Mindsets: According to Clark (2019:11), leaders with an agile mindset were more likely to adapt to workplace dynamics and obstacles, demonstrate abilities to bounce back from challenges, make effective decisions, adjust to issues outside the organisation, and leverage data in a valuable and relevant way. The agile mindset fosters a willingness to change, an openness to changing old processes and procedures, and a preference for alternative and innovative approaches. Leaders with an agile mindset can change their decisions or approaches quickly and confidently. Heifetz, Grashow, and Linsky (2009) compared agile leaders to adaptive leaders and concluded that leaders with an agile or adaptive mindset learn how to update their mental models on the fly, see with new eyes, and make meaning in fresh and unfiltered ways to respond effectively to challenges. Again, the similarity was that agile and adaptive mindsets enable leaders to create new mental maps, revise old ones, and think differently. An agile mindset is associated with the courage and wisdom to let go of or unlearn ineffective ways of thinking and acting. There is no restriction to one way of seeing and interpreting things in both agile and adaptive mindsets; options are always encouraged. Leaders with an agile and adaptive mindset leverage contradictions and divergences rather than favouring one pole over the other, and they are not afraid to learn new things.

Enterprise Mindset: The enterprise mindset expands a leader's thinking beyond himself or herself and the team. A leader with an enterprise mindset aligns the team's work with the organisation's goals. Most of the time, leaders with an enterprise mindset make difficult decisions in the service of the organisation's needs. Relationship building takes precedence, and an enterprise mindset looks beyond the needs of groups and divisions, breaking down silos of thought and operations to produce results that benefit the entire organisation (Clark, 2019:15). The priority of an enterprise mindset is to keep the organisation from stagnating and falling behind its competitors and keep talented employees from leaving. Leaders with an enterprise mindset are never concerned with themselves but rather with the

organisation's larger vision and the importance of making the organisation productive and profitable without relying on one's technical areas of expertise and comfort (Baltzley et al., 2018:4-5).

Leadership Competencies

According to Battilan and Casciaro (2010:381-398), there is a link between an organisation's ability to adapt to change and its leaders' skills and competencies. Similarly, Carmeli, Gelbard, and Gefen (2010:339-349) proposed that organisational leaders must develop or acquire relevant skills to implement transformational change. Consequently, leadership competencies were viewed as resources for improving change management programs. Ashurst and Hodges (2010:217-237) affirmed the significance of leadership competencies by recognising that success in managing organisational transformation required leaders to develop and update knowledge and skills, as organisations prefer high-potential employees. According to Galuska (2014:67-76), leaders must possess essential skills and capabilities to ensure long-term sustainability. Leaders must also encourage subordinates to commit to organisational goals. Smith (2011:111-128) proposed that leaders who adapt to new cultural settings can manage organisational change. As a result, it was critical for organisations to develop change management strategies and intervention programs to help leaders cope with a changing business environment.

Leaders needed the following skills or competencies to deal with organisational transformation, according to Neubauer, Tarling, and Wade (2017): humility, agility, adaptability, visualisation, and approachability. Leaders must also be open to feedback, recognise that others may know more, be willing to change their minds, have a clear vision, and communicate and interact with stakeholders. Avolio (2007:25-33) identified additional traits or competencies associated with universal characteristics of influential leaders in addition to those listed by Neubauer, Tarling, and Wade (2017): perseverance; tolerance for ambiguity; self-assurance; drive; honesty; integrity; internal locus of control; achievement motivation; and cognitive ability. Dubru (2017: ii) added three critical leadership skills: business, cognitive, and influencing skills. These competencies were critical and equally important in leading digital transformation, and leaders needed to integrate and adapt the competencies based on the context. Entrepreneurial mindset, experimental drive, forward-thinking, and teamwork were also important for leading digital transformation.

Jantti and Greenhalgh (2012:421-428) identified self-confidence, self-knowledge, self-awareness, and self-management as core competencies required by organisational leaders for successful organisational change. Likewise, Hsiung (2012:349-361) added resource management, collaboration, professionalism, organisational strategy, advocacy, and communication for effective change management to the list of competencies. Therefore, it was critical for leaders to improve their competencies to increase their chances of achieving organisational success. Furthermore, Schoemaker, Krupp, and Howland (2013:131-134) proposed that to lead their organisations through transformation, leaders needed institutional leadership competence and core leadership competence. Visionary, innovative, communication, emotional intelligence, and negotiation skills are part of core leadership competencies. Institutional leadership competence promotes organisational change management by strengthening core leadership competencies such as influencing organisational

climate, systems thinking, succession planning, stakeholder analysis, cultural competence, collaboration, and advocacy.

Leading Digital Change

Chew (2015) observed that there is a scarcity of research on leadership and digital transformation. Digital transformation entails reshaping an organisation's context and structure. This has significant implications for leadership practice and theory in terms of leaders' abilities and capabilities and how they implement change (Korhonen, 2015). Khan (2016:40) expressed the need to clarify the lost link between the two research fields (leadership and digital transformation). According to Hendrick (2017), effective leadership, not technology, drives transformation. The successful implementation of digital transformation depends on leadership's understanding of the digital ecosystem and a basic understanding of leading a digital team and supporting organisational changes to execute the digital strategy. To demonstrate the execution of digital strategy, adoption of digital technologies, and investment in emerging technologies for customer-centricity, enthusiastic leadership was required. In addition, leadership in digital transformation is critical for providing strategic guidance on where disruptions are most likely to occur, such as products, marketing, operations, value, and capabilities, and for empowering the team to address these disruptions.

Increased use of digital technologies and speed of changes associated with the disruptive nature of digital transformation can shake the foundations of industries, which requires organisations to fundamentally change their strategic management approach (Grab, 2019). In addition, Coetzee (2018:4), added that digital transformation leads to a dramatic change in organisational culture, processes and digital structural changes on products and services, which are easily standardised and automated due to repetitive, routine and predictable nature. Automation and digitisation were a flatter organisational structure emphasising teams than function empowered teams, digital and mobile talent, and shared organisational culture.

According to Vey, Fandel-Meyer, Zipp, and Schneider (2017:25), digital transformation necessitated transformational leadership embracing change and inspiring others to view change positively. With digital transformation comes innovation, new operations, transformation, and idea development, which necessitates leadership that understands and embraces the technical requirements of digital transformation and a willingness to embrace change and empower others to achieve greater levels of success. According to McGuire et al. (2015:1-2), organisations seeking to adapt in turbulent times cannot force change through purely technical approaches such as restructuring and re-engineering processes, but instead require a new type of leadership to reframe dilemmas, reinterpret options, and continuously reform operations. According to Kakabadse, Omar Abdulla, Abouchakra, and Jawad (2011:185), leading digital transformation necessitated a transformative vision, managing stakeholders, mobilising the organisation, evolving the organisation for an innovative corporate culture, designing the operational model, developing talent, and, most importantly, the ability to adapt to context.

Westerman et al. (2014:133-135) identified two critical areas to consider when moving forward with digital transformation: leadership capabilities and digital transformation operationalisation and

implementation. Creating a transformative digital vision, energising employees through engagement, focusing on digital governance, and building technological leadership were essential leadership capabilities for success. The operationalisation and implementation of digital transformation, also known as digital governance, was defined as directing an organisation's digital activities toward its strategic vision.

4. RESEARCH DESIGN

A research design is a procedure used by a researcher to answer research questions in a valid, objective, accurate, and cost-effective manner (Cresswell, 2014:41). The qualitative research method was chosen due to its suitability for investigating real-world experiences (Yin, 2014). A qualitative research design was used in this study to investigate the "holistic and meaningful characteristics of real-life events" as they unfold in an organisational setting, as stated by Rennie (2012:385-398) and Englander (2012:13-35). Using the perspectives and experiences of retail bank leaders about digital transformation, a phenomenological design was ideal for understanding leadership mindset and readiness for digital transformation. Furthermore, the study sought to investigate human perspectives and viewpoints.

Sampling

The study focused on bank leaders in management positions such as Chief Executive Officers, Chief Operating Officers, Department Heads, Digital Consultants, Digital Transformation Managers, Business Intelligence Managers, Regional Managers, and Branch Managers who were knowledgeable about the research topic and had been in the industry long enough to see some tangible transformation. To limit subjectivity, bank leaders interviewed were a representation of different gender, race, age group, colour, or ethnicity (Hayes, Bonner & Douglas, 2013: 8-14). A purposeful sampling approach was used to establish criteria for partnering banks and research participants who had appropriate research topic knowledge and experience. Formal request letters for permission to conduct research were sent via email or in-person to partnering banks and prospective research participants. Before the study's execution, ethical approval was obtained. The study included both male and female research participants. In terms of gender representation, there were nine male participants and three female participants. In terms of race, two research participants were White, one was Indian, and nine were Black. The research participants in the study had retail banking experience ranging from 5 to 30 years. An Honors degree was the highest level of education, and Grade 12 was the lowest.

Data collection methods

The researcher was the primary instrument for data collection in this study, and semi-structured interviews were used to collect data (Pezalla, Pettigrew, & Miller, 2012:165–185). The retail banking sector's leadership mindset and readiness for digital transformation were investigated using open-ended questions. To supplement the recordings, interviews were recorded and field notes were taken. The voice recordings of the interviews were later transcribed into a Microsoft Word document. Data saturation occurred when the researcher was unable to elicit new information and themes from the research participants (Coenen, Stamm, Stucki, & Cieza, 2012: 359-384).

Data analyses

According to Saldana (2016), data analysis is the process by which researchers identify repeated / recurring themes in data collected from participants who responded to the interview question. As a result, the findings in this study are the result of data analysis and interpretation from the data collection process. The researcher used a coding system to separate similar viewpoints and forms/styles emerging from the interviews to protect the privacy of partnering banks and research participants (Jhatial, Mangi & Ghumro 2012: 279-295). For the data interpretation procedure to be consistent with the phenomenological study design and increase rigour, the researcher transcribed digital recordings into Microsoft Word documents according to Ricoeur's interpretation theory (Tan, Wilson, & Olver, 2009:1-15). The data was analysed using the three interpretation levels: coding, theming, and in-depth understanding (Ricoeur, 1981). Among the audit strategies employed by the researcher were reliability and validity. Anney (2014:272-281) claims that reliability and validity demonstrate the credibility and trustworthiness of research findings (Anney, 2014:272-281).

5. FINDINGS

The following are the themes and sub-themes that emerged from the interviews. New leadership mindsets (mentioned 25 times), new leadership competencies (mentioned 22 times), and leadership readiness emerged as three major themes (mentioned 16 times). The themes are discussed further below.

Table 1. Themes emerging from the data

| Main Theme | Sub-Themes | F | Total |
|-----------------------------|-------------------------------------|---|-------|
| New leadership mindsets | Agile / flexible mindset | 5 | 25 |
| | Positive mindset | 5 | |
| | Incremental / growth mindset | 4 | |
| | Experimental / implementing mindset | 4 | |
| | Focused mindset | 3 | |
| | Enquiring mindset | 2 | |
| | Inclusive mindset | 2 | |
| New leadership competencies | Communication skills | 5 | 22 |
| | Adaptability skills | 4 | |
| | Talent management skills | 3 | |
| | Financial management skills | 2 | |
| | Good analytical skills | 2 | |
| | Motivating skills | 2 | |
| | Information technology skills | 2 | |
| Leadership readiness | Coaching and mentoring skills | 2 | 16 |
| | Promotion of risk culture | 4 | |
| | Understanding business environment | 3 | |
| | Continuous persistence | 3 | |
| | Feedback seeking | 3 | |
| | Embracing challenges and change | 3 | |

Theme 1: New Leadership Mindset

According to the findings, the most emerging theme in this study was a new leadership mindset (25 times). Participants agreed that adopting a new leadership mindset was critical for digital transformation in the retail banking sector, as it would help leaders adapt to the disruptive nature of digital transformation.

On the importance of leadership in the digital transformation of the retail banking sector, research participants mentioned that: *'Success in digital transformation starts with a leader embracing digital transformation, seeing the benefits of transformation, having a knowledge of the digital technologies and being able to share with the rest of the team'* (RP 3, Female, Black, Bachelor's Degree, Branch Manager, less than 5 years' experience).

In response to interview question 4 on the importance of leadership mindset in the digital transformation, research participants responded that: *'Leadership mindset is very important in driving digital transformation because as a leader you need to believe in it first, you are at the forefront and you must push it forward. As a leader, you need a mindset of never accepting what one is doing as enough, you need an improvising mindset and the ability to breakdown what you have and most importantly, you need to have an entrepreneurial mindset'* (RP 11, White, Honours Degree, Executive and Portfolio Manager, 31 years' experience).

RP 10 listed two types of mindsets in leadership: the farmer's mindset and the hunter's mindset. In providing the distinction between the two, research participant said: *'A "farmer's" mindset is not suitable to drive digital transformation because it resists change, transformation and movement because it is kind of programmed into seasons i.e. planting season, growing season and harvesting season and nothing out of the ordinary. On the other hand, the "hunter's" mindset is that of continuously hunting for prey and never settling for what you have, survival depends on hunting and killing the prey all the time'* (RP 10, Male, Black, Bachelor's Degree, IT Manager, more than 10 years' experience). The analogy provided shows that leaders with a "farmer's" mindset may be reluctant to change whereas leaders with a "hunter's" mindset are more likely to be adventurous and try new things.

Other research participants supported the importance of leaders changing or shifting their mindset to embrace digital changes in retail banking by adding that: *'For one to succeed in digital transformation, everything starts with the mindset, changes must click with the mind first. You must be familiar with the new digital technologies and embrace them first before taking them down to the ground, a leader must start to see failure as winning and an opportunity to improve and get better'* (RP 07, Male, Black, Diploma, Branch Manager, more than 20 years' experience).

RP 04 noted the correlation between leadership mindset and the level of readiness for digital transformation by indicating that: *'For leaders to succeed in digital transformation, leadership mindset needed to be aligned with the thinking of the entire workforce (Traditionalist, Baby Boomers, Generation X, Millennials and Generation Z) The mindset of a leader being projected as all-knowing will often result in more challenges than solutions when it comes to digital transformation'* (RP 04, Male, Black, Bachelor's Degree, Business Intelligence Manager, more than 10 years' experience)

Based on the data collected and analysed, the research participants confirmed the relationship between leadership mindset and leaders' readiness for digital transformation. Participants in the study emphasised the importance of leaders accepting new leadership mindsets to cope and adjust to the challenges, changes, and uncertainties associated with digital transformation. The need for leaders to embrace new leadership mindsets to help with adaptability was consistent with Kramer's (2016:31) statements implying the need for organisational leaders to cultivate various forms of mindfulness and a higher level of intellectual awareness to deal with the disruptive nature and complexity of the workplace.

Theme 2: New Leadership Competencies

The second most emerging theme in the study was according to the participants' responses (22 times). Sahyaja and Sekhara Rao (2018:738-747) stated that leaders require new competencies such as intellectual quotient (IQ), emotional quotient (EQ), digital quotient (DQ), personal quality (PQ) to be successful in leading digital transformation. A leader's readiness for change is demonstrated through a 'selling behaviour' which is the action that a leader takes in attempt to promote change during the unfreezing stage by clearly communicating the need and importance of change and through 'implementing behaviour' which relates to a leader's action to push change forward and consolidate success throughout implementation. Nine participants from the 12 who represented 75% indicated that new leadership competencies were significant for bank leaders to adapt and succeed in digital transformation. RP 11 said that: *'A leader should always have an enquiring mind, always interested in what is going on around, always be up to date, always ask why something is happening the way it is and keep trying new things'* (RP 11, Male, White, Honours Degree, Executive and Portfolio Manager, 31 years' experience).

RP 10 stated that talent management is one of the competencies that a leader should have to be successful in digital transformation. Research participant 10 stated that: *'Good leaders manage the goal and leave the how part to the people. Talent management is comparable to building a puzzle, some pieces of the puzzle are very small and tiny, but they should all fit into the puzzle and make a complete picture'* (RP 10, Male, Black, Bachelor's Degree, IT Manager, more than 10 years).

In addition to the skills mentioned, RP 04 stated that: *'To adapt and lead a team through the complexity of digital transformation, humility and drive are essential for a leader. A leader with humility is approachable and accessible by the team and customers and drive is being goal driven'* (RP 04, Male, Black, Bachelor's Degree, Business Intelligence Manager, more than 10 years' experience).

Theme 3: Leadership Readiness

Leadership readiness was the third emerging theme from data analysis and was mentioned 16 times. From the combined responses leadership readiness was important for successfully implementing digital transformation. The findings further indicated that adopting a leaders' readiness for technologies alone was without considering the readiness of leaders was not enough to drive digital transformation. Digitally ready leaders understand that the future lies in building relations, understanding the market and competition, and corporate venturing. To be successful in leading

digital transformation, leaders needed a shift of mindset and commitment to abandon traditional processes and progress with new thinking. In describing leadership readiness for digital transformation, research participants mentioned that: *'Leadership readiness starts with the mind of a leader, the language of a leader who is digitally ready is different, words like "tradition" and "customs" do not have space in the vocabulary of a digitally ready leader as in most instances they refer to wanting things to stay as they are and not embracing change. Leadership readiness is demonstrated by a leader embracing the internet of things and other digital technologies'* (RP 10, Male, Black, Bachelor's Degree, IT Manager, more than 10 years' experience).

RP 12 said that: *'Leadership readiness means being able to identify fault lines which are transition points in leadership careers where leaders should not be comfortable or stuck in legacy systems and behaviours deemed to have produced positive results. Leadership readiness is demonstrated by a leader's positive attitude, risk culture and willing to embrace challenges when forging ahead to create blueprints that focus on the business and cultural challenges faced at each transition'* (RP 12, Female, Black, Honours Degree, Guarantees Specialist / Trade, less than 10 years' experience).

In support, RP 10 indicated that leader's approach to risk demonstrates leadership readiness for digital transformation. *'A leader who is digitally ready does not avoid risk, his approach to risk is to mitigate, minimise and control it. Risk avoidance strategy is a hindrance to digital transformation and belongs to the past. Business and leadership in its nature is about exploiting opportunities and that goes hand in hand with risk taking'* (RP 10, Male, Black, Bachelor's Degree, IT Manager, more than 10 years' experience).

Research participants indicated that they have already started getting the systems ready and migrating customers into various digital channels in terms of leadership readiness for digital transformation and preparing for future challenges and opportunities. RP 11 stated that: *'Retail banks have already started working on Application Programming Interface (API) to integrate clients' database to enable multiple applications interacting with one another to provide seamless banking experience to the clients'* (RP 11, Male, White, Honours Degree, Executive and Portfolio Manager, 31 years' experience).

In support, RP 01 added that: *'As a bank we have already started preparing for the future and we are busy collecting customers' data, analysing it and making sense of it to improve customer service and bring convenience to customers'* (RP 01, Female, Black, Bachelor's Degree, Branch Manager, more than 10 years' experience).

6. CONCLUSION

Digital transformation brings a new paradigm shift in the retail banking sector on how leaders should be trained and developed to better cope with new challenges and changes associated with digital transformation. The speed of digital transformation overwhelms the intellectual and emotive capabilities of leaders in responding effectively to change. Skillsets cannot only match the level of digital transformation in the retail banking sector, the transformation of leaders' mindset is key for success. Therefore, it is significant for bank leaders to prioritise acquiring knowledge and competencies to help with changing existing intellectual representation to enhance capacity to see

what others cannot see and think what others have not yet thought. To succeed in digital transformation, leaders need to have some degree of influence and demonstrate the ability to adopt strategies that will positively impact the digital transformation process. Bank leaders need key competencies to succeed in leading the digital transformation: honesty, transparency, humility, motivation, coaching, delegation, good listening and communication skills, desire for constant learning and teamwork, and passion for digital transformation. Therefore, leaders must develop an acceptable level of trust in the team and other managers with specific knowledge regarding digital transformation to allow for creativity and innovation to thrive. Organisations must have leaders who can adapt to change effectively, support a varied organisational culture, and have the patience and ability to withstand disruptions and other challenges associated with digital transformation during the implementation phase. It is also significant for bank leaders to strike a balance between investment in infrastructure and technology and human capital skills. There is no justification for more investment in infrastructure and technology without matching, skilling, re-skilling, and up-skilling the workforce.

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THE IMPACT OF THE COVID-19 PANDEMIC ON E-LEARNING AMONG UNDERGRADUATE STUDENTS AT THE UNIVERSITY OF THE FREE STATE IN SOUTH AFRICA

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ABSTRACT

The COVID-19 pandemic has forced many organisations to implement serious technological changes and transformation for business continuity, leading to challenges. Changes have been necessary for the higher education sector. Studies compared web-based tutorials with conventional classroom teaching. However, these two phenomena differ substantially, and the impact of communicating within the different settings can have a direct negative effect on students. The manuscript assessed e-learning during the COVID-19 pandemic among undergraduate students at the University of the Free State on the Bloemfontein campus, South Africa. A semi-structured online questionnaire was distributed using the University's bulk email sending platform from January to March 2021 among the undergraduate students at the University of the Free State who were attending online classes. Using Google Form survey, students' opinions and perceptions about e-learning during the COVID-19 pandemic were assessed. Chi-square tests of independence were applied to assess the difference in students' responses. The majority of female, first year students in the 18-25 age group reported that e-learning is not effective. The environmental setup was reported as the reason for the lack of effectiveness of online classes. This age group also reported environmental setup as the reason they are unable to interact with their peers and lecturers during online classes. However, the majority of male students reported the lack of physical contact as the reason; they think online classes are not effective. The respondents also cited technological glitches and poor network connections. Smart phones were also reported by the majority of female first year's respondents as the gadgets they use to attend online classes. For developed countries, e-learning is a good opportunity to continue education during the COVID-19 pandemic, but for developing countries like South Africa it will have detrimental effects on the students unless the factors affecting the e-learning processes are addressed. The findings of this study concerning student's opinions might assist policy makers and relevant stakeholders should there be a need to continue e-learning due to COVID-19 or other pandemics that might cause the shutdown of institutions to carry out effective e-learning for all.

Keywords: COVID-19; impacts; e-learning; education, South Africa

1. INTRODUCTION

The COVID-19 pandemic has led to the closure of schools across the world (Adedoyin and Soykan, 2020). Globally, over 1.2 billion children were out of the classroom in the early days of the pandemic

(UNICEF, 2020). As a result, education has changed dramatically, with the distinctive rise of e-learning, whereby teaching is undertaken remotely and on digital platforms. In response to the complete country shut down due to COVID-19, South Africa's Department of Higher Education and Training (DHET) encouraged institutions of higher learning to implement online teaching and learning methodologies (Motala and Menon, 2020). This was to reduce the impact of the pandemic on institutions of higher learning, and to avoid losing the 2020 academic year and to reduce the spread of the virus in these institutions across the country. Many studies investigated the socio-economic impact of the COVID-19 pandemic worldwide (e.g. Ali et al., 2020; Alradhawi et al., 2020; Nicola et al., 2020; Buja et al., 2020). Lederer et al. (2021), reported that health concerns and economic disruptions caused by COVID-19 led to the increase of housing and food insecurity, financial hardships, a lack of social connectedness and a sense of belonging, uncertainty about the future, and access issues that impede student academic performance and well-being. Alradhawi et al. (2020) carried out a study of the socio-economic implications of the coronavirus and COVID-19 pandemic, the implementation of nationwide lockdown in the United Kingdom (UK) was reported to disrupt the day-to-day lives of the general public. The pandemic caused an unprecedented shrinkage of the UK economy and the closure of businesses across the UK (Alradhawi et al., 2020). Furthermore, the review study, reported students as the other at-risk group as institutions of higher learning have been closed (Adhawi et al., 2020). Another study summarised the socio-economic effects of COVID-19 on individual aspects of the world economy (Nicola et al., 2020). Buja et al. (2020) explored demographic and socio-economic factors associated with the rapid spread of COVID-19 in Northern Italy. However, no one anticipated the far-reaching socio-economic issues exposed by e-learning amongst institutions of higher learning students, in particular, students in developing countries.

This study, therefore, aims to gauge how COVID-19 exposes the socio-economic inequalities among undergraduate students at the University of the Free State (UFS) focusing on e-learning. Muthuprasad et al. (2021) highlighted the potential bottlenecks for the success of online learning, however, a literature review did not show any study that documented student's opinions and perception especially in South Africa. This study will try to fill this gap, drawing insights from the literature review to conceptualise the problem, focusing on online learning and its effect on undergraduate students at the UFS.

E-learning in context

This study not only acknowledges the seriousness and impact of COVID-19 at the UFS, it also acknowledges the secondary negative factors that affect students due to COVID-19 induced e-learning. According to Nguyen (2015), online classes can be effective as traditional classes if they are designed appropriately. However, the rapid onset and spread of COVID-19 affected everyone and the education system in particular; there was no time to prepare for effective e-learning especially in South Africa. Institutions of higher learning in South Africa were thrown into the deep end. Several studies have reported the ineffectiveness of e-learning especially in developing countries (Aung and Khaing, 2015; Andersson and Gronlund, 2009; Ssekakubo et al., 2011). Aung and Khaing (2015) reported that there are many challenges that impede the implementation of e-learning in developing

countries such as poor network infrastructure, lack of ICT knowledge and weakness of content development. A critical review focussing on e-learning challenges in developing countries found 30 specific challenges, which were grouped into four categories as follows: courses, individuals, technology and context (Andersson and Gronlund, 2009). Moreover, Ssekakubo et al. (2011) reported that despite the potential of learning management systems to support both blended learning and learning that is entirely delivered online, the majority of learning management system-supported e-learning initiatives in developing countries do not fulfil their potential; they fail, either totally or partially. Even though many studies investigated and reported the effectiveness and ineffectiveness of e-learning in developing countries, a literature review has not revealed any study that investigated the opinions and perceptions of University students on e-learning amidst the COVID-19 pandemic in South Africa.

2. LITERATURE REVIEW

Since the start of COVID-19 in early 2020 that lead to the closure of most organisations and institutions of higher learning across the world, the terms Zoom, Microsoft Teams and Blackboard collaboration have been incorporated into everyday life (Bozkurt et al., 2020). These platforms have been used to facilitate meetings, education and training (Dwivedi et al., 2020). However, the socio-economic impact of e-learning during the COVID-19 pandemic among university students in developing countries is still unknown.

The majority of COVID-19 impact related studies focus on privacy; societal disruption and use of social media (Nabity-Grover et al., 2020; Rodgers et al., 2020; Cuello-Garcia et al., 2020). Studies are already assessing the potential of COVID-19 to permanently normalise the use of digital technologies for education (Dwivedi et al., 2020; Nuere and de Miguel, 2020; Doyle and Conboy, 2020), but little information is available on how this will affect students in developing countries socially and economically. Moreover, these assessments of potential change in mode of teaching and learning have ignored the inequalities across the world as far as technological development is concerned. For example, in the Kristen Indonesia University, Nadeak et al., 2021 reported that a high number of teachers (87%) cited difficulties in getting in touch with students due to low signal and expensive data packages. In another study, Al Harthi (2020) reported that design students faced many difficulties following up lecturers' announcements and completing assignments because they are not used to e-learning technology, inconvenient study environment and absence of practical course tools at home.

The majority of Bachelor of Dental Surgery students at Kathmandu University reported that online classes are distracting and 55.4% of the students agreed that online classes are not effective (Gupta et al., 2020). A study in India suggests that to continue smooth online learning systems, low-cost internet facilities must be provided to all citizens (Kantipudia et al., 2021). This highlights the economic challenges faced by developing countries pertaining to e-learning.

South Africa as a developing country might have challenges during this global spread of COVID-19 pertaining to e-learning. E-learning tools play a crucial role during this pandemic. A study of tertiary e-learning technology in developing countries continues to expose socio-economic challenges that exist. These challenges hinder effective learning processes in institutions of higher learning across

developing countries. Shortly after the South African national lockdown level 5, most institutions of higher learning had to convert existing and new teaching material to a complete online format especially for undergraduate students as their curriculum included physical contact teaching as opposed to most postgraduate programmes. The second quarter of 2020 was a demanding and challenging time for students across South Africa socially and economically because of the migration to online classes. For example, some students with inadequate technological gadgets for effective e-learning were affected. This exposed the students' socio-economic standing, and this might have increased their vulnerability to mental health issues and also increased the number of university dropouts in the country (Meera et al., 2010)

Literature still has to offer a global systematic review on technology-related factors surrounding the COVID-19 pandemic where holistic impacts can be assessed. There is a need to explore the drivers of all social, economic, environmental and psychological impacts (Swim et al., 2011). Researchers have offered extensive analysis on many aspects of the transformation from contact to e-learning or blended mode of learning from a cultural and technological viewpoint (Radha et al., 2020; Alqahtani et al., 2020), but little is known about the socio-economic impacts of e-learning on students. This study, therefore, aims to assess key issues and underlying complexities affecting institutions of higher learning, particularly the undergraduate students studying at the UFS because of socio-economic challenges.

3. METHODOLOGY

Research design

A research design is a systematic plan and procedure to be followed in integrating the different components of the study in a coherent and logical manner. This leads to the effective address of the research problem and answers the research questions (Leedy & Ormrod, 2015). This study adopted a mixed method design that encompasses both qualitative and quantitative methods for a more holistic approach (Leedy & Ormrod, 2015).

Data collection

This study conducted an anonymous Google form survey, distributed online using the UFS, bulk email system, with the assistance of the gatekeeper between December 2020 and January 2021. The survey was distributed with a consent form, ethical clearance certificate (UFS-HSD2021/1076) obtained from the UFS and gatekeeper permit.

The survey targeted all undergraduate students studying at UFS as they are subjected to e-learning because of COVID-19. The sample size was calculated using sample size formulas and a sample of 200 was deemed sufficient to make sound statistical conclusions (Islam, 2018). However, the sample size was inflated by sending the survey to all UFS undergraduate students registered in 2020 and 2021 to cater for non-responses and to assess a large number of participants and gather maximum data and enhance generalizability. To avoid Pseudo replication of the results, the Google form survey setting was adjusted to allow a respondent to participate only once, after submitting the form, the survey cannot be taken again. However, if the respondents wanted to make amendments on their responses, an option was given where they can anonymously contact the researcher.

Data validation and reliability is the process used to assess trustworthiness, reliability and consistency in terms of the credibility, transferability, dependability, and confirmability of the instrumentation and results of the study (Kumar, 2011). This study used the Cronbach Alpha to test for reliability of the questions (Inal et al., 2017). To check for validity and reliability, the questionnaire was piloted with 10 students before administration. A preliminary analysis of the collected data was carried out to check the reliability and validity of the questionnaire.

This study reported on the views of students from the online survey where each participant articulated their individual perspectives relating to e-learning during the COVID-19 pandemic. Three more students from a determined sample size of 200 anonymously completed the questionnaires online. The questionnaire used for this study was adapted from Mseleku (2020), modified to meet the objectives of this study. The University of the Free State Human ethics committee approved the ethical clearance application for the study. Data was retrieved from the online survey, using Microsoft Excel and then imported into R Statistical Software (version 4.0.4; 2021-02-15) for statistical analysis.

Data analysis

This study applied a series of Chi-square test (χ^2) of independence to assess the difference of each of the six demographic variables and the responses to the opinion and perception questions. Descriptive statistics were also applied to the socio-demographic characteristics of the respondents.

The study analysed the (yes or no) responses from three follow up questions emanating from the opinion questions about the type of gadgets the students are using to attend online classes, interaction with peers and lecturers during online classes and whether the students think online classes are effective. For the students who replied that online classes are not effective, students were further asked why they thought online classes were not effective. For all statistical tests performed, the study reported the χ^2 statistics, degrees of freedom (*df*) and the P-values. Statistical analyses were performed using R statistical software v.4.0.4, (2021-02-15) (<https://cran.rproject.org>). All graphs were produced using a ggplot2 package from the R software.

4. RESULTS AND DISCUSSION

Socio-demographic characteristics of the respondents

Two hundred and three (203) undergraduate students responded to the study therefore, the final analysis was done on 203 respondents only. The highest number of the respondents were females (n=110) as compared to males (n=93). The participant age groups were from 18-25 (n=59), 26-35 (n=118) and up to above 45 years (n=3) of age. The mean age of the participants was 21.03 years. The majority of the students reported they spoke other languages (n=102) and they were of black ethnicity (n=119) mostly in the fourth year (n=74) of study. Details of the socio-demographic characteristics are shown in Table 1. In addition, the highest number of respondents (n=195) reported to be only students while (n=8) respondents reported to be both students and staff of the University (Table 1). There were significant differences in all the socio-demographic characteristics of the respondents except for the gender of the students (Table 1).

Table 1: Demographic characteristics of the undergraduate students at the University of the Free State who responded to the study.

| Parameters | Categories | Responses | Chi-Squared Statistics | | |
|-----------------------|-------------------------|-----------|------------------------|----------|------------------|
| | | | χ^2 | df | P-value |
| Gender | Male | 93 | 1.42 | 1 | 0.232 |
| | Female | 110 | | | |
| Language | English | 23 | 152.74 | 4 | <0.001 |
| | Afrikaans | 44 | | | |
| | Sesotho | 34 | | | |
| | Other | 102 | | | |
| Ethnicity | Black | 119 | 132.11 | 3 | <0.001 |
| | White | 45 | | | |
| | Coloured | 14 | | | |
| | Indian | 25 | | | |
| Age groups | 18-25 | 59 | 150.56 | 3 | <0.001 |
| | 26-35 | 118 | | | |
| | 36-45 | 23 | | | |
| Relationship with UFS | above 45 | 3 | 172.26 | 1 | <0.001 |
| | Undergraduate | 195 | | | |
| | Undergraduate and staff | 8 | | | |
| Level of study | 1st year | 43 | 23.06 | 3 | <0.001 |
| | 2nd year | 58 | | | |
| | 3rd year | 28 | | | |
| | 4th year | 74 | | | |

Significant figures are shown in Bold

To assess the relationship between opinions and demographics of the students, this study analysed the student's responses to opinion questions and correlated the three main questions underpinning this study with some demographical characteristics of the students as follows:

Opinions by gender

The majority of the female students as compared to males reported using a Smartphone followed by a laptop and desktop computer to attend online classes, the use of a tablet to attend online classes was reported by the majority of males as compared to females (Figure 1A).

In addition, the highest number of both male and female students reported environmental setup as the reason for not being able to interact with their peers and lecturers during online classes, but female reports were higher (Figure 1B). However, a higher number of males reported poor connection as compared to females (Figure 1B). Furthermore, the highest number of females reported the microphone not working and technological glitches compared to males (Figure 1B).

A larger number of female students reported the environmental setup and poor connection as the reason they think online classes are ineffective as compared to male students and also technological glitches were reported by a higher number of female students as compared to male students as the reason they think online classes are not effective. As expected, lack of physical contact was reported by the highest number of males as the reason they think online classes are not effective (Figure 1C).

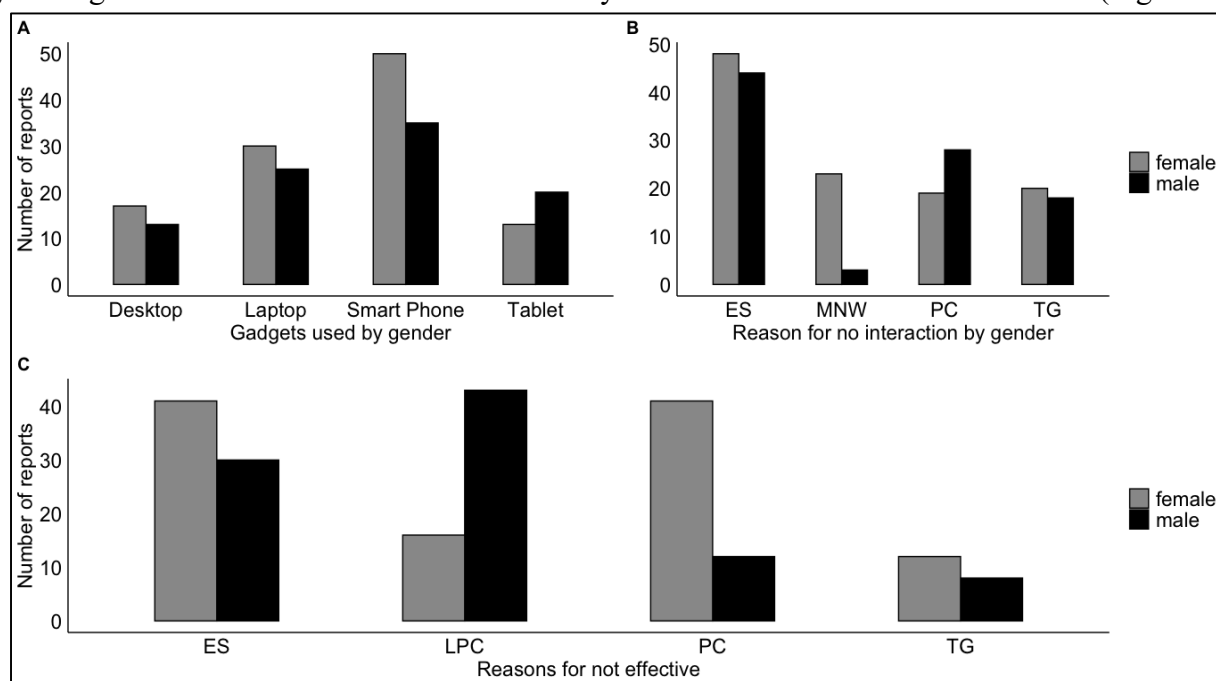


Figure 1: The number of students that reported the gadgets they are using to attend online classes by gender (A), the number of students that gave reasons for not being able to interact with their peers and lecturers during online classes by gender (B) and the number of students that gave reasons for thinking online classes are not effective by gender (C). ES= Environmental Setup; MNW=Microphone; PC=Poor Connection; TG=Technological Glitches and LPC=Lack of Physical Contact.

Opinion questions by age

Across the study, the majority of students within the 18-25 age group reported the use of gadgets to attend their online classes, with the highest number of students reporting the use of laptops (Figure 2A). The highest number of students who reported using a desktop for their online classes was in the 36-45 age group, however, the overall number of students who used a desktop computer was negligible (Figure 2A). Students above 45 years of age did not report the use of a tablet as the gadgets they are using to attend online classes (Figure 2A). A higher number of students reported environmental setup as the reason for not being able to interact with their peers and lecturers during online classes, with the highest number of reports in the 18-25 age group (Figure 2B).

Technological glitches were reported by the highest number of students above 45 years of age (Figure 2B). A very negligible number of students reported their microphone not working as the reason they cannot interact with their peers and lecturers during online classes, with an equal number of the

students within the age groups 26-35; 36-45 and above 45, there was no reports of microphones not working from the students in the 18-25 age group (Figure 2B).

The majority of students in the 18-25 age group reported environmental setup followed by poor connectivity and lack of physical contact as the reasons online classes are not effective (Figure 2C). However, the highest number of students in the 36-45 age group reported technological glitches, no students who were above 45 years of age (Figure 2C) found technological glitches to be a hindrance for effective online classes.

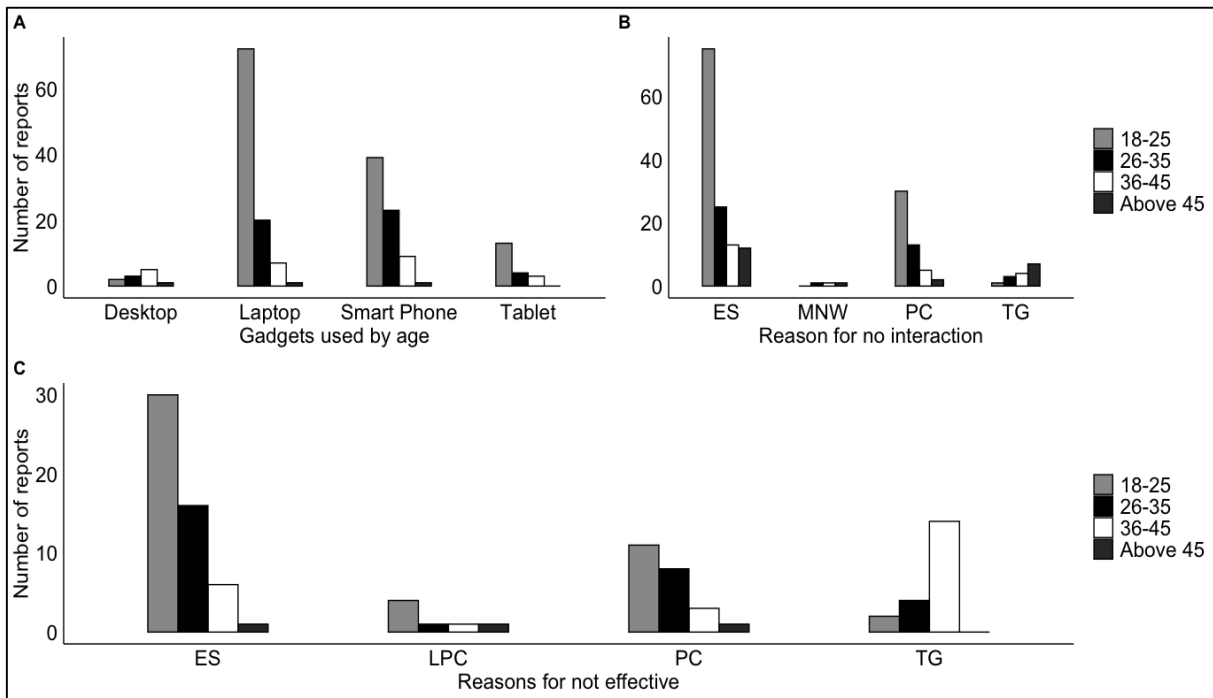


Figure 2: Shows the number of students that reported the gadgets they are using to attend online classes by age (A), the number of students that gave reasons for not being able to interact with their peers and lecturers during online classes by age (B) and the number of students that gave reasons for thinking online classes are not effective by age (C). ES=Environmental setup; MNW=Microphone Not Working; PC=Poor Connection; TG=Technological Glitches; LPC=Lack of Physical Contact.

Opinion questions according to the level of study

Most of the first-year students reported the use of a smartphone or a tablet to attend online classes, whereas the majority of the fourth-year students reported laptop use. Throughout the study, the number of students who reported using a desktop computer to attend online classes was very negligible, but the highest number of the fourth-year students reported using a desktop computer to attend online classes (Figure 3A).

The majority of students reported environmental setup as the reason for not being able to interact with their peers and lecturers during online classes, with the highest reports of technological glitches and poor connection from fourth-year students (Figure 3B).

Overall, the number of students who reported their microphone not working as a reason they cannot interact with their peers and lecturers was very negligible, this problem was experienced mostly among fourth-year students (Figure 3B).

The highest number of first-year students reported different reasons they think online classes are not effective as compared to other students, most of the first-year students reported lack of physical contact; poor connection and technological glitches, compared to any other level of study (Figure 3C).

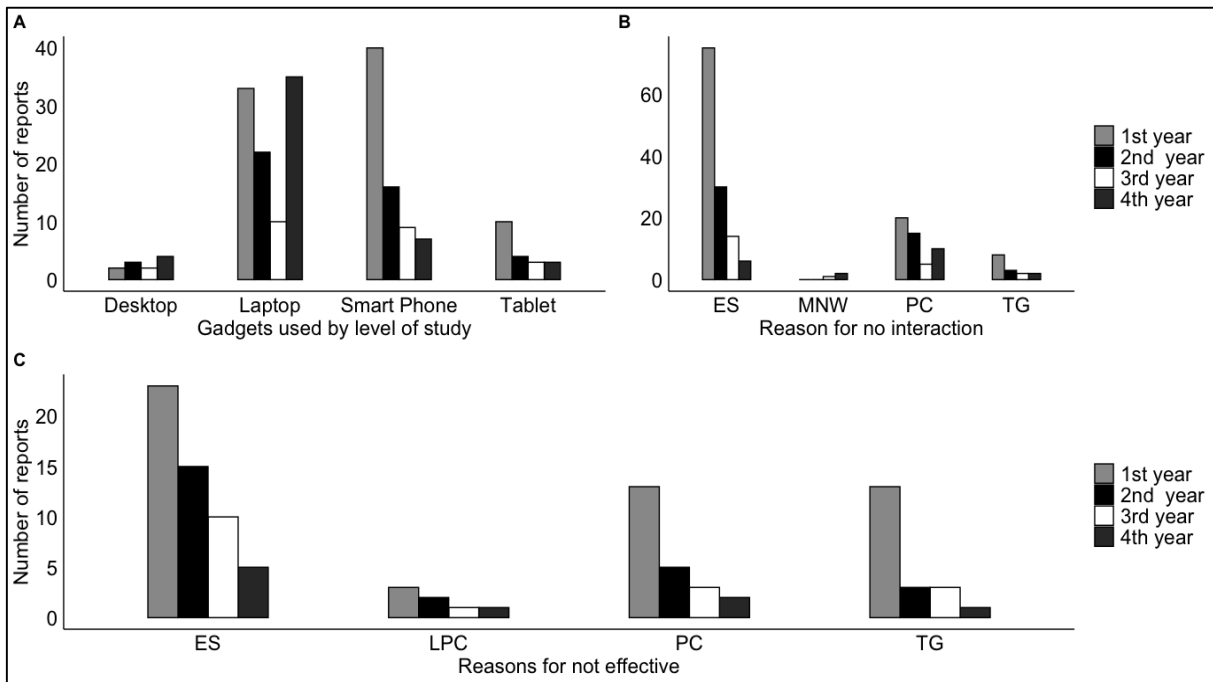


Figure 3: The number of students according to the gadgets they are using to attend online classes by level of study (A), the number of students that gave reasons for not being able to interact with their peers and lecturers during online classes by level of study (B) and the number of students that gave reasons for thinking online classes are not effective by level of study (C). ES= Environmental Setup; MNW=Microphone; PC=Poor Connection; TG=Technological Glitches and LPC=Lack of Physical Contact.

5. DISCUSSION

This study gauged the opinions and perceptions of undergraduate students at the University of the Free State in South Africa on e-learning during the COVID -19 pandemic to assess the students’ socio-economic factors exposed by this pandemic.

Online classes are not a common phenomenon in most countries because of many factors that come with e-learning. In America, a developed country, Parker et al. (2012) reported that roughly one-in-four college graduates (23%) report that they have taken a class online based on findings from a pair of Pew Research Centre surveys conducted. This shows that even developed countries before COVID-19 were not enthusiastic about e-learning despite the socio-economic stabilities associated with developed countries.

Technology and e-learning

The internet has made online learning possible and many researchers and educators are interested in e-learning to enhance and improve student learning while combating the reduction of resources and in recent times reducing the spread of the COVID-19 virus, particularly in higher learning institutions (Antonio et al., 2014). The majority of female first-year students reported technological glitches as the reason they cannot interact with their peers and lecturer during online classes and also as the reason they think online classes are not effective (Figures 1C and 3C). These findings show gender divide as one of the social issues surrounding the use of technology, especially in developing countries. Studies report male students to be more technologically advanced as compared to their female counterparts (Beyer, 2014; Antonio et al., 2014).

Role definition outlines many of the reasons why women do not make more use of technology and are referred to as technophobes (a fear of technology; Antonio et al., 2014). There are stereotypes about field's gender congruence (Beyer, 2014), e.g. that computer sciences are inappropriate for women, undermine the development of a sense of belonging in the field (Cundiff et al., 2013), socially and economically females are excluded from the most paying fields of study because of stereotyping.

The high number of first years reporting technological glitches as an issue cannot be easily defined by technophobia, as far as this study is concerned. COVID-19 was declared a disaster in South Africa, only a month after the first years had been exposed to high technological systems of the University environment. The cost of university fees for the first time for some parents might have left some parents with no money to buy suitable technological gadgets for attending online classes. This study showed most of the females (Figure 1A); first-year (Figure 3A) students using their smart phones where laptops or desktops would have been suitable for attending online classes. This also shows the socio-economic divide brought to the fore by COVID-19, subjecting the students, in particular the first-year students to online classes without prior arrangements to purchase appropriate gadgets.

The finding that the majority of the female first-year students use smart phones more than males and the other students in the different levels of study is not surprising. Young females have been reported to be on their smart phones for the most part of their day as compared to their male counterparts (Kapasia et al., 2020). However, being subjected to back-to-back online classes on a small screen five days a week (considering the hectic first year class schedule in South Africa) might cause social and health problems for these students. Excessive screen time appears to have had a detrimental effect on health by severely affecting sleep patterns and duration (Literat, 2021). This is perhaps because of the suppression of melatonin production, which helps induce sleep, by the blue light emitted from screens of devices (Calvo and Tapia-Ayuga 2020; Christensen et al., 2016).

A study in Nepal reported that more than half of the nursing students (59.6%) from a University in Nepal felt like they were suffering from eye problem/ headache because of extreme exposure to online classes during this COVID-19 pandemic (Subedi et al., 2020). The COVID-19 lockdown increased reliance on various electronic devices to connect online, and this resulted in increased screen time, especially for the 18-25-year age group as most of them are first years and have back-to-back classes. Majumdar et al. (2020) reported a significant increase in laptop and smart phones use amongst

students in India before and during the lockdown. Among students, cellphone usage was more popular than desktop/laptop usage to enable gossiping, news feed checking, social media updates, and now adding online classes will increase the vulnerability of these students (Majumdar et al., 2020). Health issues related to excessive use of digital devices have become alarmingly high during the COVID-19 pandemic (Noreen et al., 2021). Symptoms of computer vision syndrome are significantly associated with the distance from a digital device and less frequent break intervals (Noreen et al., 2021).

A study done of undergraduate medical students at two different universities in the 18-25 age group found that 29% of the students experienced extra ocular complaints and 71% had ocular symptoms because of overall frequency of computer vision syndrome of 98.7%. Symptoms of computer vision syndrome were observed more among students using a desktop/laptop at less than forearm length (Noreen et al., 2021). Older students, above 45 years of age reported technological glitches (Figure 1B) as the reason they cannot interact in class, whereas, the highest number of students within the 36-45 age group reported technological glitches as the reason they think online classes are not effective. These two age groups were born when technology was not widely used in South Africa and they are referred to in nonprofessional terms in South Africa as “born before Technology”. In addition, these students with the two age groups reported the highest use of a desktop computer, which has been available for the longest time (Figure 2A). The uneven distribution of technological gadgets uses, and difficulties reported here, imply that e-learning still has a long way to go in South Africa as a developing country, irrespective of the whole world moving into the 4th industrial revolution (Goldberg, 2015).

Effectiveness of online classes

In this study, the highest number of female students in the 18-25 age group reported in their first year of study in 2020 that online classes are not effective with the highest number of these students reporting environmental setup as the main reason they think online classes are not effective (Figures 1-3C). These findings are not surprising, from a female, first-year, (18-25) student perspective in that the COVID-19 pandemic resulted in a complete shutdown of the UFS campus early in the year while the first years were still finding their way around the campus, learning the Blackboard system of the University and making new friends.

The social female context in a South African society, unlike their male counterparts, the environmental setup of young females is characterised by child-headed households, these households in most cases are characterised by females raising and taking care of their siblings as compared to their male counterparts in those households. This makes the environmental setup of female students not conducive to online studies, let alone classes. For example, in most cases young siblings might prefer the attention of the female student sister in a child headed household as compared to their brothers not understanding that the sister is attending an online class. This will disadvantage the female students in terms of performance as compared to their male counterparts because of the divided attention they might be subjected to while learning online. This might increase the number of female university dropout as compared to males again subjecting the females to harsher future socio-economic conditions.

Unsurprisingly, the highest number of males (Figure 1C) and the age group between 18-25 (Figure 2C) and first-year students (Figure 3C) reported a lack of physical contact as the reason they think online classes are not effective. Barab and Duffy (2000) reported that social presence is a correlational variable associated with student learning. In addition, Kim (2011) confirmed four factor constructs of social presence as mutual attention and support, affective connectedness, sense of community and open communication between the youth. Males, mostly between the ages of 18-25 as compared to female have been reported to seek attention and support from their peers as opposed to their family (Harper, 2007). E-learning socially excludes these young males by depriving them of the attention and support they need from their peers in a traditional classroom. A study showed the health impacts of isolation measures because of COVID-19, with the potential to affect long-term diet and activity behaviours in undergraduates according to research done among Australian University students (Gallo et al., 2020).

Interaction during online classes

The ability to ask a question, to share an opinion with a fellow student, or to disagree with the point of view in a reading assignment are all fundamental learning activities (Picciano, 2002). For the first years that are still uncomfortable in a tertiary institution who reported not being able to interact during online classes, this might be a problem in future when face-to-face classes resume. They only know and understand the culture of consuming what is giving to them without raising their voices and putting out their opinion as they might hide behind their screens throughout online classes. The inability to focus while learning online for a long time has been reported as a problem for students in the Faculty of Dentistry Universities in Indonesia (Amir et al., 2020). E-learning requires adjustments by students and teachers for successful interactions to occur (Littlejohn and Pegler, 2007). This study showed environmental setup as a major problem for interaction, however, first-year students are dealing simultaneously with transition from high school; anxieties reported to be caused by COVID-19 and learning to navigate across classes offered on an online platform. The first years could not have been prepared to be in a situation whereby they deal with demanding first year university work and their environmental setup, i.e. sharing a room with a sibling or roommates as lockdown forced all the students out of campuses and e-learning resumed shortly after they shut down universities.

COVID-19 has denied university students, in particular, the first-year students the opportunity of learning in a typical classroom environment by limiting social and communicative interactions between student and teacher, and student to student (Stubbs, 1976). A literature review did not show any online classes being attempted in some fields of study such as the medical field, and hard sciences where laboratories are needed for experiential learning. E-learning initiatives are less because of a higher share of practical learning aspects in the curriculum for most of the hard sciences field (Muthuprasad et al., 2021). This makes e-learning not effective for most hard science students whose curriculum is made up of 50% theory and 50% practical work in most institutions of higher learning in South Africa (Green-Thompson et al., 2012).

6. CONCLUSIONS

This study assessed e-learning during the COVID-19 pandemic among undergraduate students at the University of the Free State in Bloemfontein campus in South Africa and found that most females, especially first-year students in the 18-25 age group reported that e-learning is not effective. Environmental setup was reported as the main reason this group of students thought online classes were not effective and as the reason they were unable to interact with their peers and lecturers during online classes. A high number of male students reported lack of physical contact as the reason they think online classes are not effective in contrast to their female counterparts. The respondents predominantly reported technological glitches and poor connections, with smart phones reported by a high number of female first year's respondents as the gadgets they used to attend online classes. From an international perspective, considering the COVID-19 pandemic, e-learning offers an excellent opportunity to continue education, but in developing countries like South Africa it will have detrimental effects on the students unless the factors affecting the e-learning processes are considered. This study's findings might assist policy makers and relevant stakeholders to take into consideration student's opinions should there be a need to continue e-learning due to COVID-19 or other pandemics that might cause the shutdown of institutions to carry out an effective e-learning for all.

This study was limited to undergraduate students and data was collected at one institution of higher learning, so there might be a difference in opinion between postgraduate and undergraduate students as most postgraduate's students do not attend classes because of the nature of their curriculum with fewer or no modules to attend. In addition, including different institutions of higher learning might sum up more opinions and perceptions of students across South Africa about online classes and policy documents can be amended based on the opinions of most of the students in the country.

Future studies should focus on a comparative study to gauge opinions and perceptions of students across the country for the results to be implemented in policy documents. Interestingly, the first years and mostly male students thought online classes are not effective because of lack of physical contact, whereas their female counterparts thought online classes are not effective because of their environmental setup. This contradictory finding brings to light the gender discrepancies exposed by COVID-19 in South Africa and other developing countries. Female students have to stay at home, probably because they have to take care of their siblings while also attending online classes, they are exposed to environmental setup that is not conducive for studying or even to attend the class. Their male counterparts were more concerned about the lack of physical contact implying that male students in the study had no problem with their environmental setup. This study filled the knowledge gap regarding the opinions of undergraduate students in South Africa, even though the results are not conclusive because of the sample population. However, the results give some understanding of how environments setup and some socio-economic variables might influence the students' responses concerning e-learning.

The study findings suggest that mainly environmental setup and technology can prevent the success of e-learning should another pandemic such as COVID-19 hit South Africa. This study suggests that e-learning is an excellent opportunity to continue education, provided minor issues that need to be addressed are dealt with. This study therefore, recommends that the Department of Higher Education

and Social Development should look at alternative options to assist students to continue with e-learning without the worry of the environmental setup they are in. This study proposes that relevant policies must document e-learning as a formal mode of study for institutions of higher learning in South Africa or as an alternative to face-to-face classes, while policies are revised to address the difficulties that could arise from e-learning.

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AN EMPIRICAL ANALYSIS OF THE RELATIONSHIP BETWEEN THE SIZE OF THE INFORMAL SECTOR, CORRUPTION AND ECONOMIC DEVELOPMENT IN AFRICA

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ABSTRACT

The relationship between the informal sector, corruption and economic development has been an inconclusive and a polemical issue in both academic and developmental discourse. From a theoretical perspective, the two can be substitutes or complements, but the exact nature of the relationship is not clear. The aim of this study therefore is to empirically investigate the relationship between the informal sector, corruption and economic development in Africa, over the period 2005–2015. A panel of 46 out of 54 African countries was analysed, as the other eight countries, although considered together with the rest, were scientifically isolated owing to data challenges. Four panel estimators, namely, the Pooled Effects, the Fixed Effects or Within Effects, the Random Effects or GLS, and the Dynamic Panel Model (Arrelano-Bond), were applied. The empirical findings show that in Africa, an improvement in the control of corruption reduces the size of the informal sector, while a growing informal sector is fertile ground for corruption. Since both corruption control and the size of the informal sector are jointly determined, the two variables can be regarded as complements in Africa. The results further show that economic development reduces the size of the informal sector.

Keywords: corruption, informal sector, economic development

1. INTRODUCTION

The informal sector and corruption have emerged as a ‘twin challenge’ for Africa, with a devastating impact on economic development and sustained growth of African economies. An estimated 86% of the total workforce in Africa is locked in the informal sector, and close to 92.4% microenterprises are located in the informal sector (ILO, 2018). The key challenge is that the continued growth of the informal economy in Africa has adverse effects on the optimum utilisation of resources, and can distort incentives for capital accumulation and innovation, with dire impact on firm productivity and growth (Koeda and Dabla-Norris, 2008). A number of studies have also concluded that corruption adversely affects investment and reduces economic growth (Dreher and Schneider, 2009).

The high incidence of corruption and informality in Africa and the deepening of the ‘twin challenges’ across the continent are of increasing concern to policy makers and governments, given their far-reaching effect on economic development, poverty alleviation and effective

resource allocation in the respective countries. A high level of informality is a sign of underdevelopment and could be a further source of economic regression (Loayza, 2018; ILO, 2018). Although the growth of the informal sector offers employment opportunities especially during periods of economic crises, the conditions of employment in this sector are deplorable and without security (Suwal and Pant 2009; Canelas, 2018). Further, most people who are plying their trade in the informal sector are locked in low productivity sectors, which implies underemployment.

It is against this background that this study seeks to investigate the relationship between the size of informal sector, corruption and economic development in Africa using empirical evidence. Several studies that have investigated the relationship between the informal sector and economic development like Borlea *et al.* (2017), and Shahab *et al.* (2015), used GDP per capita as a proxy for economic development. However, in the current study, the Human Development Index (HDI) was used as a proxy for economic development, as HDI is a broader and more inclusive measure of economic development when compared to GDP per capita (Jwa, 2017). There is not much research which has investigated this relationship using empirical evidence, and the results from the few studies are not conclusive (Buehn and Schneider, 2011). Thus, this study is envisaged to make an empirical contribution on the relationship between the size of informal sector, corruption and economic development in Africa.

2. LITERATURE REVIEW

2.1 A Brief Review of the Informal Sector, Corruption and Economic Development

Studies attempting to investigate the relationship between the informal sector, corruption and economic development encounter the problem of defining these concepts, as they can be elusive (Ulysea, 2020). For example, there is no single approach to defining informality in the academic and policy discourse. The lack of a precise definition of the concept has resulted in the phenomenon attracting different names such as the black economy, the shadow economy, unreported economy, and parallel economy, amongst other names (Frey and Schneider, 2000). Some authors like Schneider and Enste (2000) concluded that although it may be complicated to come up with one acceptable definition, the phenomenon is known when seen in economies. The lack of a consensus on the definition of the informal sector has resulted in disagreements on this subject and different interpretations of its meaning, as well as its measurement (Schneider *et al.*, 2010). Despite these disagreements and a lack of a uniform definition, the informal sector can broadly be defined as legal economic activities carried out by economic agents outside the legal and regulatory framework of a country (Loayza, 2018). As such, the activities, although legal, are not properly monitored, recorded or taxed by the government (Mishra and Ray, 2010; Ulysea, 2020).

On the other hand, corruption by its nature is complex, multi-faceted and may have different meanings depending on the situation and context. Dreher and Schneider (2009) define corruption as the abuse of public office or power for private benefit. Bardhan (2010) argues that corruption is not only confined to public office holders, as it is equally prevalent in the private sector. In most African countries, corruption is not only rampant in public and private sectors, but also in civic society as

well. Studying the relationship between corruption and informality is complex largely because much of the corrupt and informal activities are not properly recorded and, as a result, they are not easily accountable (Buehn and Schneider, 2011). Thus, any empirical analysis of the relationship between corruption and the informal sector is hugely constrained by the scarcity of data and a lack of uniformity on the definition of what constitutes corruption and informality, especially in Africa (Dutta *et al.*, 2013).

Economic development, just like, corruption and informality, also faces definitional challenges, as the term is subject to various definitions (Feldman *et al.*, 2015). There is a lack of clarity on the meaning and a shared understanding of the concept. Lee (2018) similarly argues that economic development is a multidimensional concept which does not have a universally accepted definition. Economic development must therefore be viewed as a multidimensional process that involves structural changes, poverty reduction and an overall improvement in social welfare (Todaro and Smith, 2011).

The relationship between the size of the informal sector, corruption and economic development has been an inconclusive and a polemical issue in both academic and developmental discourse. The debate on the relationship between the informal sector, corruption and economic development is more pertinent in Africa, given the growing size of the informal sector and the deepening corruption across the continent.

Theoretically, it is not clear whether the relationship between corruption and the informal sector is positive or negative (Johnson *et al.*, 1997). Buehn and Schneider (2009) concur and argue that in theory, corruption can act as a substitute or complement to the informal sector, but the exact nature of the relationship is not clear. This view is supported by Shahab *et al.* (2015) who argue that the informal sector and corruption are viewed as ‘twins’ that support each other or, in some instances, are adversaries. The substitutional relationship between the informal sector and corruption implies that there is an inverse relationship between these two concepts. As such, an increase in the informal sector reduces the propensity of public sector employees to demand bribes (Dreher and Schneider, 2009). The fact that microenterprises or individuals can go underground limits the ability of corrupt officials to seek bribes, and hence the two are substitutes. This view of a negative relationship is consistent with the models of Choi and Thum (2005), and Dreher and Schneider (2009). However, some studies argue that this relationship between corruption and informal sector may differ among developed and less developed countries, largely due to the strength of institutions and enforceability of rules and regulations (Shahab *et al.*, 2015).

On the other hand, the informal sector and corruption may show a complementary relationship, implying that these two variables are positively related and augment each other (Shahab *et al.*, 2015). As such, an acceleration in corruption will result in an increase in the size of the informal sector. This is largely because corruption can be viewed as a form of a tax and, as such, economic agents pay a bribe to public sector officials in exchange for under-declaring tax liability (Dreher and Schneider, 2009). Studies by Johnson *et al.* (1997), Hibbs and Piculescu (2005) and Hindriks *et al.* (1999) support this complementary relationship. Thus, theoretically, the exact nature of the relationship between the informal sector and corruption remains unsettled, justifying a need for further

investigation. Several studies have associated the informal sector with low levels of productivity and economic development (Borlea *et al.*, 2017). Studies by De Rosa *et al.* (2015) found a 0.81% correlation between GDP per capita and the magnitude of corruption. Critically, with the growth and prevalence of the informal economy in several African countries, there are concerns over the impact of informality on the development of these countries (Benjamin and Mbaye, 2012).

The continued growth of the informal economy in Africa over the years defies the traditional theories which postulated that the informal sector would disappear as economies develop (Chen, 2012). Contrary to such theories, the concept is now deeply entrenched in Africa. Thus, in global economies in general and in Africa in particular, the informal sector is not any way near being some marginal enclave (Williams *et al.*, 2015).

2.2 Empirical Evidence

This section discusses the empirical evidence on the relationship between the informal sector, corruption and economic development. Understanding the empirical evidence from other studies is important as this helped to inform the methodology which this paper adopted. Although there are measurement challenges that researchers who are interested in studying the relationship between the informal sector, corruption and economic development face, there are some studies that were conducted during the last decade for both developed and developing countries which provide valuable empirical evidence.

Johnson *et al.* (1997) considered a full employment model whereby individuals are employed either in the formal or informal sector. In their model, the informal sector was found to be a substitute for the formal economy and showed a negative relationship, implying that an increase in the informal sector resulted in a decline of the formal economy. The study also found a positive relationship between corruption and the informal sector, that is, higher levels of corruption were more likely to lead to a growth of the informal sector. According to Johnson *et al.* (1997), corruption acts like a tax on companies that are operating in the formal economy, and the prevalence of corruption may force such firms to migrate to the informal economy. Similarly, a study conducted by Friedman *et al.* (2000) on the determinants of informality in developing countries found that bureaucratic red tape, a high incidence of corruption, a less robust legal environment as well as weak institutions were all closely associated with a larger informal sector.

A study conducted by Dreher *et al.* (2007) on the determinants of informality found that in high income countries, the losses related to corruption as a proportion of GDP per capita were relatively low at 22.26% during the period 1991–1997, while in low income and transition economies, especially in sub-Saharan Africa, the losses were significantly higher, and averaged approximately 60% of GDP per capita. Thus, following the findings by Dreher *et al.* (2007), corruption has a strong bearing on economic development, particularly in developing countries. Dreher *et al.* (2007) further found that the informal sector decreases with higher GDP per capita, better institutional quality (measured by greater government effectiveness), and a lower fiscal burden, while corruption decelerates with good government effectiveness and the level of democracy. Some studies, however, suggest a complementary relationship between corruption and the informal sector. Virta (2007)

concluded that the effect of corruption on the informal sector largely depends on the type of corruption. If economic agents were to pay bribes to get projects, an increase in corruption will lead to an increase in the informal sector, thus implying that corruption and the informal sector are complements. Bayar *et al.* (2018) investigated the relationship between corruption, the rule of law and the informal sector in transitioning economies in Central and Eastern Europe during the period 2003 to 2015, and also found a complementary relationship. Mishra and Ray (2010) explored the relationship between informality, corruption and the impact of rising income inequality. Their study was based on pooled World Bank Enterprise Surveys (WBES) data from 2002 to 2006. They found that there is strong complementarity between the informal sector and corruption, and that growing inequalities in societies lead to an increase in the informal sector.

There are several studies which have investigated the relationship between corruption and economic development. A growing literature views corruption as having an adverse impact on economic development, and the high incidence of corruption has been linked to developing countries (Borlea *et al.*, 2017). Loayza *et al.* (2009) have also identified corruption as one of the main obstacles to economic development and poverty alleviation. De Rosa *et al.* (2010) found a 0.81% correlation between GDP per capita and the level of corruption. Paldam and Gundlach (2009), found that corruption has a negative impact on economic development and is a barrier to investment in economies. Kaufman (2010) found a positive relationship between corruption and fiscal deficits in advanced economies. Kaufman (2010) also found that corruption reduces tax revenues, and adversely affects productivity and economic performance. This view was supported by Ivanyna *et al.* (2016) who concluded that a high incidence of corruption reduces government revenues and adversely affects economic growth.

3. METHODOLOGY

3.1 Data and Methodology

This paper is modelled on the Shadow economy estimates constructed for 158 countries from 1991 to 2015 by Medina and Schneider (2018). The paper, however, focuses on African countries, since the challenge of informality and corruption tends to be more pervasive in Africa. A panel of 46 countries⁷ was analysed over the period 2005-2015, using annual datasets. Eight African countries were not included in this panel due to data challenges. On the measurement of corruption, this study used the Control of Corruption Index (COCO) published by the World Bank in the *Governance Index Report*, as the measurement of corruption. The choice of COCO was largely because most of the other datasets used in this study also came from the World Bank. On the measurement of economic development, several studies, like Buehn and Schneider (2009) and Borlea *et al.* (2017) used GDP per capita, as a proxy for economic development. However, in the current study, the Human Development Index (HDI) was used as a proxy for economic development as HDI is a broader and more inclusive measure of economic development when compared to GDP per capita (Jwa, 2017).

⁷ Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central Africa Republic, Chad, Congo Republic, Congo DRC, Cote d'Ivoire, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia Niger, Nigeria, Papua New Guinea, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe

3.2 The Empirical Model

The methodology applied in this study included all the unobservable country-specific and period-specific variables, which were then eliminated statistically using variables measured using deviations from their means. Several tests were conducted to select the most appropriate estimator for the model. Studies based on cross sectional data failed to provide information on the state of informal sector dynamics within countries. This paper therefore applied panel data to account for both time and country-specific heterogeneity.

The empirical model applied in this study took the following form:

$$INF_{it} = k + \gamma_t + \eta_i + \beta_1 Cor_{it} + \mathbf{Z}_{it}\boldsymbol{\varphi} + \varepsilon_{it} \tag{1}$$

$$\varepsilon_{it} \sim IID(0, \sigma^2) \tag{2}$$

$$\mathbf{Z}_{it} \perp \varepsilon_{it} \tag{3}$$

where INF_{it} is the size of the informal sector in country i at time t , Cor_{it} is the control of corruption in country i at time t ; \mathbf{Z}_{it} is a vector of exogenous control variables that include the level of economic development as measured by Human the Development Index (HDI) and other institutional factors such as government effectiveness ($Gvteff$), the size of profit tax as a percentage of GDP ($Protax$), population (Pop), literacy rate ($Literacy$), GDP per capita ($Gdppc$) and economic growth ($GDPgrowth$); γ_t measures period-specific unobservable factors; η_i measures country-specific unobservable factors; and ε_{it} is an error term assumed to be identically and independently distributed with a mean of zero and constant variance, that is, $\varepsilon_{it} \sim IID(0, \sigma^2)$. k , β_1 ; and $\boldsymbol{\varphi}$ are constants/parameters. The hypotheses are tested by simply testing the coefficients of the respective variables, that is, the slope coefficients, β_1 and $\boldsymbol{\varphi}$.

Table 1 presents the variables applied in this study.

Table 1: Variables

| Variable Name | Definition |
|------------------|--|
| <i>INF</i> | Informal sector size measured as percentage of GDP |
| <i>Cor</i> | Corruption control index |
| <i>Cor_instr</i> | Control of corruption |
| <i>HDI</i> | Human Development Index |
| <i>Protax</i> | Profit tax measured as percentage of GDP |
| <i>Gdppc</i> | Gross domestic product per capita |
| <i>Gvteff</i> | An index for government effectiveness |
| <i>GDPgrowth</i> | GDP growth used as a measure for economic growth |
| <i>Pop</i> | Population |

Control of corruption index ranges from -10, indicating the worst control of corruption, to 10, indicating the best level of corruption control. Most African countries are in the negative side of corruption control despite having some countries outperforming others in corruption control. Similarly, government effectiveness is an index which is measured the same way as corruption control, ranging from -10 for the least effective government, to 10 for the most effective government. While previous studies which investigated the relationship between informality and economic development (Torgler *et al.*, 2011) used GDP per capita as a proxy for economic development, this study instead used Human Development Index (HDI) as a proxy for economic development. HDI is a wider measure of economic development that encompasses GDP per capita, life expectancy, education and other social aspects such as income inequality. As established by Torgler *et al.* (2011), economic development is expected to reduce the size of the informal sector.

The inclusion of corruption and profit tax as potential determinants of informality is informed by the theoretical model. In addition, previous studies identified these variables and the level of economic activity as key drivers of informality (Aidt, 2009). Aidt (2009) further established that while corruption causes informality, there is also a possibility of informality breeding corruption. Tax, as part of regulation, is viewed as a major driver of informality (Schneider and Enste, 2000). Based on these previous studies, the a priori relationship between the size of informality and corruption is positive. Similarly, stiff regulation such as high taxes is assumed to promote informality.

3.3 Model Selection and Estimation Techniques

Several tests were conducted to select the most appropriate estimator for model (1). In cases where the country-specific features do not vary, that is, $Var(\eta_i) = 0$, a pooled regression (PE) which is based on OLS estimator is more appropriate, and in cases where country-specific variables are heterogeneous but non-random, a fixed effects (FE) model based on the Least Squares Dummy Variable (LSDV) estimator or within estimator is more appropriate. But when η_i is a random term as ε_{it} , a random effect (RE) model based on the GLS estimator is more appropriate. The random effects model is also known as the Error Components Model (ECM) because of its property of having a composite error term. The random effects model took the following form:

$$INF_{it} = k + \beta_1 Cor_{it} + \mathbf{Z}_{it}\boldsymbol{\varphi} + \eta_i + \varepsilon_{it} \tag{4}$$

$$\varepsilon_{it} \sim IID(0, \sigma^2) \tag{5}$$

$$\eta_i \sim IID(k_\eta, \sigma_\eta^2) \tag{6}$$

$$\mathbf{Z}_{it} \perp \varepsilon_{it} \tag{7}$$

The choice of the most appropriate model was done using three tests as listed in Table 2. The three tests presented in Table 2 are all anchored on testing the nature of country-specific term (η_i). The first test, fixed vs pooled, tested the null hypothesis below:

$$H_0: \eta_1 = \eta_2 = \dots = \eta_N = \eta \tag{8}$$

The alternative hypothesis is that there is at least one country with different country-specific characteristics from others. Failure to reject the null hypothesis indicates that a pooled effects model is more appropriate than a fixed effects model.

The null hypothesis for the second test, Breusch-Pagan, tested the null hypothesis that country-specific characteristics do not vary across countries against the alternative hypothesis that at least one country varies from others:

$$H_0: Var(\eta_i) = \sigma_\eta^2 = 0 \tag{9}$$

A failure to reject the above hypothesis is an indication that the pooled effects is more appropriate than the random effects, while a rejection of the hypothesis indicates that a random effects model is more appropriate than a pooled effects model.

The final test, random versus fixed or the Hausman Test, was premised on the null hypothesis that country-specific effects are not correlated with the error term. The Hausman Test was used to test the null hypothesis that follows:

$$H_0: Corr(\eta_i, \varepsilon_{it}) = 0 \tag{10}$$

A rejection of this hypothesis indicates that the fixed effects model is more appropriate than the random effects model, while a failure to reject the null hypothesis is an indication of appropriateness of the random effects model.

Table 2: Choosing the Right Model and Estimator

| Test between | Test | Null Hypothesis |
|--------------------------|---------------|------------------------------------|
| Fixed vs. Pooled | F-test | Pooled effects is more appropriate |
| Random vs. Pooled | Breusch-Pagan | Pooled effects is more appropriate |
| Random vs. Fixed | Hausman | Random effects is more appropriate |

Although the results from the most appropriate model were discussed, results from the other models were also presented. In addition to presenting results from the *RE*, *FE* and *PE* models, the paper also considered the potential bias that may be a result of the dynamics inherent in models of the informal sector. The size of the informal sector today may be highly correlated with the historical size of the same sector. Owing to this factor, a Dynamic Panel Model (*DPM*) for the informal sector size using the Arrelano-Bond or Generalised Methods of Moments (*GMM*) was also estimated. The dynamic model took the following form:

$$INF_{it} = k + \lambda INF_{i,t-1} + \beta_1 Cor_{it} + \mathbf{Z}_{it}\boldsymbol{\varphi} + \varepsilon_{it} \quad (11)$$

$$\varepsilon_{it} \sim IID(0, \sigma^2) \quad (12)$$

$$\mathbf{Z}_{it} \perp \varepsilon_{it} \quad (13)$$

where $INF_{i,t-1}$ is the lagged size of the informal sector and λ is a constant, while the rest of the variables are as defined before. The *GMM* estimator is efficient even under heteroscedasticity. If λ is accurately estimated, then policy makers can easily predict the future size of the informal sector based on the known current size.

4. RESULTS AND DISCUSSION

To account for endogeneity, the control of corruption was instrumented using the predicted values of corruption control, given the size of the population. The mean of the instrument is -0.67, just slightly above the mean of the control of corruption, which is -0.68. The minimum of the instrumented control of corruption is -1.00, while the maximum is -0.63. These statistics do not significantly deviate from the non-instrumented control of corruption variable. The five models presented in Table 3 are estimated using different estimators.

The first pooled model in Table 3 was estimated using the Ordinary Least Squares (*OLS*) technique, while the second Fixed Effects (*FE*) Model was estimated using the within estimator and with a different measure of economic development. The second model has GDP per capita as a measure of economic development, while the first uses HDI as a measure of economic development. The third model, namely, the Fixed Effects (*FE*) Model, applies the within estimator or the Least Squares Dummy Variable (*LSDV*) estimator, with HDI as a measure of economic development. The fourth model, however, namely, the Random Effects (*RE*) Model applies the Generalised Least Squares (*GLS*) technique.

The coefficient of HDI in the third model is significantly larger than that of GDP per capita in the second model. The major implication of this deviation is that previous studies which applied GDP per capita as a measure of economic development largely underestimated the impact of economic development on the size of the informal sector. Finally, the fifth model, namely, the Arrelano-Bond, applied the Generalised Methods of Moments (*GMM*) technique. The Arrelano-Bond Model is a dynamic model that takes into consideration the effect of the current size of the informal sector on the future size of the informal sector or the impact of the size of the informal sector during the previous period on the current size of the informal economy.

Table 3: Models of Informality Determinants

| VARIABLES | Model 1 (Pooled) <i>INF</i> | Model 2 (FE) <i>INF</i> | Model 3 (FE) <i>INF</i> | Model 4 (RE) <i>INF</i> | Model 5 (Arrelano – Bond) <i>INF</i> |
|------------------|-----------------------------------|-------------------------------|-------------------------------|-------------------------------|--|
| <i>HDI</i> | -18.34*** (3.75) | | -72.30*** (4.94) | -63.99*** (4.61) | -49.36*** (7.137) |
| <i>Cor_instr</i> | -5.94*** (0.73) | -2.79*** (0.95) | -2.35*** (0.80) | -2.48*** (0.76) | -1.998* (1.070) |
| <i>Protax</i> | -0.003 (0.008) | 0.01** (0.004) | -0.003 (0.004) | -0.002 (0.004) | 0.008 (0.005) |
| <i>Gdppc</i> | | -0.001*** (0.0002) | | | |
| <i>L.INF</i> | | | | | 0.185** (0.083) |
| <i>Constant</i> | 41.91*** (2.23) | 35.98*** (0.80) | 71.51*** (2.63) | 67.35*** (2.77) | 52.74*** (6.33) |
| Observations | 486 | 498 | 486 | 486 | 398 |
| R-squared | 0.234 | 0.249 | 0.352 | | |

Source: Authors: *L.INF* means a lag of *INF* in the dynamic model and the numbers in parenthesis are standard errors. (***), (**) and (*) means statistically significant at 1%, 5% and 10%, respectively.

The five models in Table 3 unanimously show that the association between control of corruption and the size of the informal sector is negative. This result is independent of the estimation technique. The results were consistent with the findings of other studies highlighted in the empirical evidence. Noteworthy is that the main implications for African countries trying to control the growth of informal sector is to reduce the level of corruption. Similarly, the findings from the five models show that economic development is negatively associated with the size of the informal sector and GDP per capita. The results from the five models further show that profit tax in the informal sector is significantly smaller than the impact of HDI on the size of the informal sector. The implication of such findings is that previous studies that used GDP per capita as a proxy for economic development grossly underestimated the impact of economic development on the size of the informal sector in Africa. The main implication for African countries is to focus on improving economic development as a way of addressing informality challenges.

Economic theory suggests that on the one hand control of corruption reduces the level of informality while on the other hand, high levels of informality may make it difficult for governments to control corruption, thus indicating that the two variables are endogenous. In this regard, the paper also examined the impact of informality on the control of corruption in Africa. The results are presented in Table 4. Three models were estimated using different techniques. The three techniques used were the Fixed Effects Model (Model 6), the Random Effects Model (Model 7) and the Random Effects

Model but estimated using an instrument for *INF* (Model 8). *INF* such as control of corruption was instrumented using *HDI* and the size of population.

Table 4: Impact of Informal Sector Size on the Control of Corruption

| VARIABLES | Model 6 <i>FE</i> <i>Cor</i> | Model 7 <i>RE</i> <i>Cor</i> | Model 8 <i>FE</i> with instrumented <i>INF</i> <i>Cor</i> |
|------------------------|------------------------------------|------------------------------------|---|
| <i>INF</i> | -0.0110*** (0.00266) | -0.0110*** (0.00256) | |
| <i>HDI</i> | 1.418** (0.571) | 0.193 (0.333) | 2.189*** (0.607) |
| <i>Protax</i> | 0.000129 (0.000210) | 0.000148 (0.000211) | 0.000167 (0.000213) |
| <i>lPop</i> | -0.605*** (0.156) | -0.144*** (0.0540) | |
| <i>INF instrument</i> | | | -0.0274*** (0.00711) |
| <i>Constant</i> | 8.837*** (2.312) | 1.960** (0.851) | 1.449*** (0.548) |
| Observations | 482 | 482 | 482 |
| R-squared | 0.072 | | 0.035 |
| Number of Country code | 45 | 45 | 45 |

Source: Authors' computations: * p<0.01, ** p<0.05, * p<0.1**

The findings in the three models in Table 4 demonstrate that increased informality has a negative impact on corruption control. Countries with larger informal economies find it difficult to control corruption. A percentage growth in the size of the informal sector reduces control of corruption index by 0.011% in models 6 and 7. This magnitude is consistent irrespective of the method of estimation applied. If we instrument the endogenous *INF*, the impact of the informal economy size on corruption control marginally worsens, but the nature of the relationship remains the same. A percentage growth in the size of the informal sector will therefore reduce the control of corruption index by 0.027 points.

In the first two models in Table 4, a larger population tends to reduce the effectiveness of government in corruption control. A percentage growth in population reduces the control of corruption index by 0.006% in the *FE* Model and by 0.001% in the *RE* Model. Although the magnitudes of these estimates are small, their signs are important as they indicate that population growth signifies additional effort in corruption control by governments.

In order to explain the magnitude of the impact, it is important to select the most appropriate models from the models presented in tables 3 and 4. In the model for corruption control presented in Table 4, all three models indicated the same impact of the size of the informal economy on control of corruption. Hence, the result is unanimous and any of the three models can be used to analyse the

impact of informal sector size on the control of corruption. However, this paper preferred to use the model with instrumented *INF* (Model 8) because it is free of endogeneity.

5. CONCLUSION

The results from the study support the assertion that in Africa, control of corruption decreases the size of the informal sector. African countries with high levels of corruption or low levels of corruption control have larger underground economies compared to those countries with low levels of corruption. When the informal sector becomes larger, corruption increases, thereby making it difficult to control. Thus, the findings support the assertion of joint causality between informal sector size and the control of corruption. Each of the two variables drives the other, that is, both the control of corruption and informal sector size are endogenously determined. This finding suggests that in any modelling of corruption and the informal sector growth, the issue of endogeneity cannot be ignored. Endogeneity must therefore be addressed whenever informality and corruption are related. These results show that the control of corruption is endogenous in the model, hence the two are complements as was established by Dreher and Schneider (2009). The main implication is that African countries should pursue policies that target one of the two in order to reduce both the size of the informal sector or corruption. Complementarity of corruption and informality in Africa is an indication of the existence of excessive regulation, but with low capacity to regulate.

With regard to economic development, strong statistical evidence was found to support the notion that an increase in economic development significantly reduces the size of the informal sector. The results show that an improvement from one level to the next level of development can significantly reduce the size of the informal sector. The impact, however, varies depending on the measure of economic development. For instance, when HDI is used as a measure of economic development, the size of the informal sector will shrink by over 49 percentage points from an incremental economic development. But the informal sector will shrink by less than one percentage point from an incremental development in cases where economic development is measured using GDP per capita.

Therefore, the lesson derived from these findings is that using GDP per capita as a proxy for economic development in the modelling of drivers of the informal sector can grossly underestimate the impact of economic development on the size of the informal sector. The implication is that previous studies which widely used GDP per capita as a proxy for economic development have underestimated the impact of economic development on the size of the informal sector. Further, the findings show that countries with a higher level of economic development have a better index for corruption control, hence a smaller size of the informal sector in their economies. Thus, it is important for African governments to focus on improving economic development as measured by HDI, in order to reduce the level of informality.

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TRADITIONAL DECISION MAKING VERSUS ARTIFICIAL INTELLIGENCE AIDED DECISION MAKING IN MANAGEMENT OF FIRMS: A NARRATIVE OVERVIEW

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ABSTRACT

A lot of buzzing on how Artificial Intelligence (AI) is disrupting the workforce by automating some jobs motivated researchers to conduct various studies on AI technologies from different perspectives. However, there are still some research opportunities that could be pursued to advance knowledge in the area as AI continues to evolve with technological advances. Consequently, the goal of this paper is to identify the AI technologies that could be employed in decision making and how they can improve traditional decision making in the management of firms in the era of Big Data. Using a systematic review, this paper described and synthesised the literature from secondary sources including peer-reviewed journal articles, textbooks and online blogs, to unravel the super power of AI aided decision making processes over traditional decision making in firms. Findings identified Machine Learning as one of the most influential AI technologies for converting information into knowledge for decision making. Also, five AI-driven decision support systems were identified with three examples of AI systems based on the five decision support systems as technologies that could be harnessed to improve decision making in the management of firms. Besides, the findings established that despite the unprecedented advantages of AI technologies, some managers are reluctant to embrace these technologies due to some challenges that go with their adoption. The paper recommends further research on how AI could be used in other management practices, which are outside decision making.

Keywords: artificial intelligence; fourth industrial revolution; management practices; aided decision making; traditional decision making

1. INTRODUCTION

Decision making is part of organisational management and is done daily. The term decision making was imported from the lexicon of public administration into the business world sometime amid the 20th century (Buchanan & O'Connell, 2006). Of importance is the fact that the value of an organisation is the sum of the decision that it makes and implements (Blenko, Mankins & Rogers, 2010). Decision making is a process involving identifying a goal, getting the relevant and necessary information and weighing the alternatives to decide (Shika, n.d.). Therefore, a decision has to be made in the presence of several alternative options. Further, the decision-making process is frequently iterative, involves framing issues, gathering intelligence, making conclusions and learning from

experience. A lack of attention to the decision making process can undermine the organisation's performance.

Decisions have always been made since time immemorial in organisations with so many models and heuristics developed for various reasons among them cutting costs, promoting growth, changing culture and transforming strategic focus (Blenko et al., 2010). However, the dawn of the fourth industrial revolution (4IR) has introduced a technological revolution at a scale, scope and complexity that has radically transformed the way humans work and even make decisions (Davies, 2016). Amongst technologies brought by the 4IR is AI, which rides on the power of Big Data. According to Duan Edwards and Dwivedi (2019), several previous studies have explored the roles of AI before the era of Big Data but the super power of the new generation of AI together with the immense mixed views and debate on the role of AI in decision making warrants the revisiting and redefining of the role of AI. It is AI together with Big Data that brought a lot of improvements in ways of doing business that prompted the writing of this paper. Therefore, the goal of this paper is to identify the AI technologies that could be employed in decision making and how they can improve the process of traditional decision making in the management of firms.

2. LITERATURE REVIEW

Duan et al. (2019) posited that many white papers, reports and articles have been published by leading technology providers and magazines on strategic and practical guidelines on how to benefit from AI. However, it appears there is a scarcity of academic research papers that focus on understanding the use and impact of the new generation of AI from the perspective of technology application with meticulous academic investigation and theorisation (Duan et al., 2019). Against this backdrop, this paper seeks to identify the AI technologies that could be employed in decision making and how they can improve the process of traditional decision making in the management of firms.

In this section, the paper presents a systematic review of literature from relevant sources on traditional decision making and AI supported decision making. It is from this literature review that information is abstracted on traditional decision making versus AI aided decision making and the specific examples of AI technologies that could be employed in decision making and how they can improve decision making. Since this paper employed a systematic review of the literature to produce a narrative, it followed the five steps of the systematic review namely: framing the question, identifying relevant publications, assessing the quality of studies, summarising the evidence and interpreting the findings (Khan, Kunz, Kleijnen & Antes, 2003). The rest of the paper is structured as follows: a description of what was done in the five steps of literature review as a methodology, findings, discussion and conclusion.

3. METHODOLOGY

The question: Which of the AI technologies could be employed in decision making and how can they improve the process of traditional decision making in the management of firms?

Identifying relevant publications: This was achieved by analysing existing data from secondary sources. This involved a literature search from two electronic databases; the JSTOR and

ScienceDirect from 2010-2020 because this is the period where the pace of AI introduction in business management heightened. Backward snowballing was also done through finding citations in peer-reviewed articles, authoritative textbooks and online blogs. Relevant articles were identified through the use of various keywords in the search of the databases. The keywords used were from the title and included: decision making, traditional decision making processes, artificial intelligence in decision making and artificial intelligence aided decision making use of Big Data. The potentially relevant hits identified for retrieval from the search were 4076, which saw 3129 being excluded based on their subject categories leaving behind 947. The subject category was confined to ‘Business Management’. From these, 620 were further excluded based on their titles, leaving behind 327. A further 242 was excluded based on their abstracts, leaving behind 85. From these again, 75 were excluded based on their text leaving behind 10. Then, these were added to the 18 snowballed sources. This saw the narrative review being based on 28 papers. The inclusion of these papers in the review was based on whether they had one or more concepts that fit one or more context perspectives. Document analysis was then conducted on the included studies and using abstraction from each article yielding information excerpts that were then organised into the content written in the findings (Snyder, 2019).

Assessing the quality of studies: As indicated by Khan et al. (2003), the paper quality assessment applies to all the steps of the review. After identifying the studies to include in the study, an in-depth assessment of the bias inclusion was conducted to allow for gauging the quality of the content. Reliability and validity are concepts used to evaluate the quality of research and for this systematic literature review the assessment of quality was based on guidelines by Snyder (2019, p.338). The objective of including these studies was to obtain content on traditional decision making and AI aided decision making and to identify the AI technologies that could improve traditional decision making.

Summarising the evidence: The evidence of content found in the selected and snowballed articles which were then used to write information on traditional and AI aided decision making as well as identifying the AI technologies that could improve decision making was tabulated. Table 1 summarises the findings from document analysis of the articles from the JSTOR and ScienceDirect databases shown with an asterisk and the rest of the sources that were identified through snowballing.

4. FINDINGS

Table 1. Content from literature review used in a narrative on traditional decision making versus artificial intelligence aided decision making in the management of firms.

| Topic/sub-topic | Content | Source |
|--|---|---|
| Factors influencing human decision making | The most influencing factor comes from the manager’s attributes and their approach. Decision making is guided by psychological, intellectual and normative influencing factors. | Shika (n.d.); Lumen Boundless Management (n.d.) |
| Common approaches in human decision making | The most common approaches are rational/logical, intuitive and predisposed, with the manager aiming at a more rational approach, a blend of intuition and the rational step-by-step approach. | Trunk, Birkel & Hartmann (2020) |

| Topic/sub-topic | Content | Source |
|---|---|--|
| Limited human capacity to process information | Human capacity to process information is limited even if more people get involved. | Trunk, Birkel & Hartmann (2020); (Fiori, 2011). |
| Heuristics aid human decision making | Heuristics are mental shortcuts that help human decision making and judgements quickly without having to spend considerable time researching and analysing information. | Stephendale (2018); Albar and Jetter, (2009). |
| Different classes of heuristics in decision making | Heuristics are adaptive decision strategies, five classes of heuristics are applied in managerial decision making. | *Artinger, Petersen, Gigerenzer, & Weibler, (2015). Saratchandran (2019). |
| Inadequacy of common sense and experience in decision making | Common sense and experience have ceased to be adequate for risk anticipation and consequences of critical business choices, hence the use of AI different algorithms. | |
| Advent of AI systems to support decision making | The inception and development of AI systems and technological advances brought in more advancement in the operations of decision support systems. | Zeebaree and Aqel (2019) |
| AI builds big data to radicalise decision making | AI systems build big data from scratch through augmented intelligence and eventually provide managers with advanced models for use as a basis for their decision making. | Saratchandran (2019). |
| AI identifies and classifies images accurately in decision making. | Learning method can classify the images with significantly higher accuracy than the conventionally used machine learning methods for image classification and utilises significantly lesser time and computational resources for decision making. | *Chaudhuri & Bose, (2020). |
| New integrated decision support framework for complicated and uncertain decision-making processes | A new integrated tool and decision support framework embedded in an integrated tool called OUTDO integrates Multi-Criteria Decision Analysis to approach complex problems resulting from the interaction of many multi-criteria issues and uncertain decision-making processes. | *Fernandez, Navarro, Duarte, & Ibarra (2013). |
| AI supported decision making heuristics in marketing | An active-machine-learning method selects questions adaptively when consumers use heuristic decision rules, tailors priors to each consumer based on a "configurator." Subsequent questions maximize information about the decision heuristics. | *Dzyabura & Hauser (2011). |
| Data mining supports decision strategies in dynamic environments. | A domain-independent, iterative approach that applies data mining classification techniques to the collected data can be employed to discover the conditions under which dynamic decision-making strategies produce undesired or suboptimal outcomes. | *Meyer, Adomavicius, Johnson, Elidrisi, Rush, Sperl-Hillen, & O'Connor (2014). |

| Topic/sub-topic | Content | Source |
|--|---|---|
| AI aided knowledge-based decision making system | A methodology, 'knowledge-based improvement' (KBI), based on the use of visual interactive simulation (VIS) and AI, aims to identify and improve human decision-making in operations systems. | *Robinson, Alifantis, Edwards, Ladbrook, & Waller (2005). |
| AI in Market selection decisions | A Fuzzy Attractiveness of Market Entry (FAME) model is developed to address the decision making problem of product introduction into alternative markets. | *Shipley, Johnson, Pointer, & Yankov (2013). |
| AI Online decision aids for consumers' preferences | An extension of the effort - accuracy framework of cognition by considering the perceived strategy restrictiveness of decision aids and testing the extended framework in a context in which online decision aids are used. | *Wang, & Benbasat, (2009). |
| AI Data mining techniques in decision making | A semi-automated approach uses data mining techniques to identify the relationships between context, path decisions and process outcomes and derive decision rules from these relationships. | *Ghattas, Soffer, & Peleg (2014) |
| A decision support framework for complicated and uncertain decision making | Presentation of a new integrated tool and decision support framework is embedded in an integrated tool called OUTDO, which integrates Multi-Criteria Decision Analysis (MCDA), decision rationale representation and management. | *Hunt, Bañares-Alcántara, & Hanbury, (2013). |
| Examples of AI systems for decision making | Examples of ML AI systems that enhance decision making capacities include: Marketing Decision-Making, Customer Relationship Management, Recommender System, Problem Solving and Opinion Mining. All these are enabled by Machine Learning (ML). | Saratchandran (2019); Sincavage (2020); Edwards (2018), |
| Challenges in adopting AI decision making systems | Both big organisations and some small and medium businesses have benefited largely from AI solutions and machine learning algorithms. | Abdulsalam (2020). |

Table 1. shows the topics/subtopics, content and sources from which these were extracted. The information was used to guide the structure of the content in this narrative overview paper, which aimed at pulling many pieces of information together to identify the AI technologies that could be employed in decision making and how they can improve the process of traditional decision making in the management of firms in the era of Big Data.

Traditional decision making

While so many factors come into play and influence decision making, Shika (n.d.) argued that the most influence comes from the manager's attributes and their approach. Lumen Boundless Management (n.d.) posited that decision making is guided by psychological, intellectual and normative influencing factors. These three factors influencing decision making, in turn, inform the three most common approaches namely rational/logical, intuitive and predisposed. The

rational/logical approach employs a step-by-step process while focusing on facts and reasoning. It involves the use of rationality, quantitative techniques and logic to evaluate alternatives (Cliff's Notes, 2020). The intuitive decision model is employed by managers who avoid statistical analysis and logical process and instead rely on their feelings about situations as a result, basing decisions on their managerial experience. As they make intuitive decisions, managers acknowledge cues from similar experiences, rapidly carry out subconscious analysis and make a decision (Trunk, Birkel & Hartmann, 2020). According to Cliff's Notes (2020), the predisposed decision making approach involves deciding on a solution first and later gather substance to support it.

The above influencing factors and approaches to decision making affect different individuals in different ways based on their personalities and intellectual capabilities. Hence, Cliff's Notes (2020) argued that a manager's success is determined by the quality and effectiveness of the decisions they make. Trunk et al. (2020) posited that human capacity to process information is limited even if more people get involved. As a result, traditional decision making saw human decision makers having had to make simplified models called heuristics or rules of thumb (Trunk et al., 2020), which sequentially address complex problems to make them remediable for the human ciphering.

Heuristics can be described as rules following behaviour that follow a logic completely different from the consequential logic and creating bias (*Artinger, Petersen, Gigerenzer, & Weibler, 2015). Also, Stephendale (2018) described heuristics as mental shortcuts that help human decision making and judgements quickly without having to research considerably and analysing information. According to Albar and Jetter (2009), human judgment has shortcomings, systematically biased conclusions and unreliable inferences under certain conditions. Heuristics and bias blame this inability to make good decisions on cognitive limitations and that one of these limitations is a restriction of the working memory, resulting from the human cognitive system being able to process, remember, compare and recognise only up to about seven variables at a time with more variance, leading to failure to comprehend what is going to happen (Albar & Jetter, 2009).

Literature has identified several heuristic examples and this paper only focused on availability, anchoring and adjustment and representativeness (Stephendale, 2018). These are described as follows: *Availability Heuristic*: is the tendency by decision makers to judge the likelihood of an event by the ease with which relevant occurrences come to mind and operates on the assumption that if something can be remembered, it must be more important than alternative solutions that are not as readily remembered. *Anchoring and Adjustment Heuristic*: is the tendency to judge the likelihood of an event by using a starting point, which is called an anchor and then, making upward or downward adjustments with the starting points yielding different estimates, which are biased towards the initial value or number. *Representativeness Heuristic*: is a mental shortcut that assists decision makers in comparing information to their mental prototypes or stereotypes, resulting in the tendency to judge the frequency or likelihood of an event by the extent to which it resembles the typical case (Stephendale, 2018).

Artificial intelligence aided decision making

Common sense and experience have ceased to be adequate for risk anticipation with the dawn of AI algorithms enabling effective decision making and reducing consequences of critical business choices (Saratchandran, 2019). Unlike humans who experience decision fatigue, AI algorithms make AI-based decisions fast and good as they can source and process huge amounts of data as well as providing invaluable business-based insights within a short time (Saratchandran, 2019). Zeebaree and Aqel (2019) highlighted that the inception and development of systems and technological advances such as data warehouse, enterprise resource planning, advance plan system and big data brought in more advancement in the operations of decision support systems. Research on decision support systems showed that artificial intelligence, networking and cloud computing are transforming traditional decision making systems into intellectual based systems to provide solutions to hardcore complex problems (Zeebaree, & Aqel, 2019). AI involves the use of computers with created algorithms to do tasks traditionally requiring human intelligence and these algorithms help classify, analyse, draw predictions from data, act on data, learn from new data and improve over time in a way a human child grows into a human adult (Lateef, 2020).

Before the advent of AI, managers used to depend on incomplete and inconsistent data for decision making but with AI limitless outcome modelling, they have data-based models and simulations to guide them (Sincavage, 2020). AI has the potential to support human intelligence and allows intelligent decision making due to the ever-increasing data storage and computing power resulting in the elimination of huge costs of wrong decisions (Saratchandran, 2019). AI systems build big data from scratch through augmented intelligence and eventually provide managers with advanced models for use as a basis for their decision making (SAS Institute, 2021). This makes AI a robust tool, which can radicalise decision making when properly employed and remodel the way of doing business. AI has brought to reality the ability to make decisions based on outcome knowledge.

The AI aided decision systems are developed according to the functional applications, thus, have unique features. Zeebaree and Aqel (2019) identified the following five different AI-driven decision systems: Model-driven, Data-driven, Communication-driven, Document-driven and Knowledge-driven.

Model-driven: This system is unnecessarily data intensive, highlights access to and manipulation of a statistical, financial or simulation model and employs provided data and parameters by decision makers to support them in analysing situations (Power, 2014).

Data-driven: This system manipulates structured data with the option of handling time series of both external and internal data as well as the firm's real-time data. The system is less complex, less intensive and can be managed by primary tools and elementary techniques. Business intelligence is one datum driven decision systems with powerful insight creation tools such as online analytical processing, which eases getting viable insights from available information (Power, 2014).

Communication-driven: Central to this type of system are electronic communication and hybrid network technologies that connect decision makers and ensure a reliable connection between communication and collaboration resources among a set of decision makers.

Document-driven: Organisations are increasingly using documents as an integral and pivotal part of the business. Different systems are registering an increase in saved files in form of audio, video, picture documents and hypertext documents. The internet is loaded with volumes of documents databases driven by decision support system technologies and a lot of documents are stored in an unstructured form and an information extraction system is used to structure the information in a way that eases decision making (Zeebaree & Aqel, 2019).

Knowledge-driven: These systems are embodied with specialised problem solving expertise stored as facts, rules and procedures (Zeebaree, & Aqel 2019). They are a unique integration of management expert system, data-mining technology and communicating techniques that learn and reciprocate the decision making ability of a human expert using if-then logical notations on provided data to solve complex problems (Lateef, 2020).

Saratchandran (2019) and Sincavage (2020) identified the following examples of AI systems that enhance decision making capacities through the above-identified decision support systems: Marketing Decision-Making, Customer Relationship Management and Opinion Mining among others. All these are enabled by Machine Learning (ML), a type of AI application which, according to Alpaydin (2020), is undeniably one of the most influential AI technologies and a tool for converting information into knowledge. Lateef (2020) described ML as computer programmes that enable computer networks to discover patterns hidden in huge amounts of text, audio and video data, which can also be called Big Data. ML involves humans training the machines from past data to do what humans can do and these techniques are used to automatically find the valuable underlying patterns within complex data that humans could otherwise struggle to discover and perform all kinds of complex decision-making (Alpaydin, 2020).

Marketing Decision-Making: AI can be employed in insight marketing decision making through real-time data gathering, trend analysis and forecasting. Saratchandran (2019) posited that AI modelling and simulation provide an insight into the clients' characteristics and enable the prediction of consumer behaviour that allows for best marketing decisions in the short and long term. *Customer Relationship Management:* AI can be employed for managing customer relationship with an organisation through its various automated functions among them contact management, data recording, analysis and lead ranking. The artificial intelligence's buyer persona modelling can assist the sales and marketing team in identifying a consumer's lifetime value through managing multiple inputs into the system at the same time (Sincavage, 2020). *Opinion Mining:* The searching of webs for opinions and feelings of customers about products using AI automation is called opinion mining and improves the speed and reliability of making critical business decisions. This enables retailers to predict product demand and respond appropriately. Further, it also assists businesses to have insights into the way consumers feel about a product.

Merits and demerits of AI aided decision making systems

The following merits of AI decision systems were identified by Duggal (2021): they significantly reduce errors and increase accuracy and precision with the decisions taken by AI in every step decided by information previously gathered using a certain set of algorithms, and have zero risks as humans

can overcome many risks by employing these systems. Besides, they are available throughout unlike humans who need breaks and time offs and can work endlessly without breaks whilst thinking much faster than humans. Also, they can perform multiple tasks. AI systems lack emotions, are very practical and rational and do not have biased views, which ensures more accurate decision-making.

However, with the seemingly all glorious perceptions of AI aided decision support systems, there are some demerits to these as well. Trunk et al. (2020) posited that there is no dialogue possible with the technology and as a result, there is an argument among scholars that it is often unclear how the system arrives at a certain output. Further, each algorithm is only as good as the data input and the programmed process mining, which are usually both done by humans, thus, might be biased. Some demerits of AI decision support systems are high costs in terms of time and resources in form of up-to-date hardware and software, lack of creativity, increasing unemployment and lack of ethics.

Adopting AI decision aided systems

According to Dialani (2020), both big organisations and some small and medium businesses have benefited largely from AI solutions and ML algorithms. Whilst business organisations have benefited from AI solutions, there are still challenges to their adoption. A 2019 Alegion survey revealed that nearly 8 out of 10 enterprise organisations currently engaged in AI and ML projects have come to halt and that 81% of the respondents indicated that the process of training AI with data is more difficult than they expected (Dialani, 2020). The following are other challenges that organisations experience as they implement AI systems according to Dialani (2020): *Data Challenges* - AI heavily depends on data, consequently, factors like the volume of data, collection of data, labelling of data and accuracy of data come to play. *Workforce Reception Challenges* - Adopting AI can be intimidating to non-technical staff in an organisation, thus, they would require advanced training to achieve a smooth migration to the use of AI in an organisation. *Expertise Scarcity Challenges* - There is AI expert scarcity on the market and it is also a challenge to hire the right people since most adopters do not know the AI technicality involved. Further, AI is a growing and evolving technology, so keeping up with its complexities and needs becomes a major challenge. *Budget Constraints Challenges* - AI technologies and expertise are too expensive particularly for organisations looking to create tailor-made solutions to fit their business use cases. They will be expected to pay more and are bound to experience budget constraints.

It is because of some of the highlighted demerits of the AI decision supporting systems and challenges experienced in implementing AI systems that some managers cannot embrace these technologies for use in their organisations. Despite the above-highlighted challenges in adopting AI decision solutions, Dialani (2020) argued that adopting AI can be challenging for organisations but is undoubtedly worth it because AI is here to stay and that these challenges will cease to become hurdles as AI becomes normalised and prioritised ultimately.

5. DISCUSSION

This paper aimed at identifying the AI technologies that could be employed in decision making and how they can improve the process of traditional decision making in the management of firms. The paper established that traditional decision making depends heavily on the mental capability of

individual decision makers, which is influenced by different factors among them psychological and emotional, so bringing in a lot of bias. Further traditional decision making is characterised by the shortcomings in human judgement and unreliable and biased human inferences attributed to cognitive limitations (Albar & Jetter, 2009). This requires the traditional heuristic based decision making to be aided by some artificial intelligence to improve efficiency in decision making. The introduction of the super power new generation of AI came with one of the most powerful technologies, Machine Learning, which converts data into knowledge. The generation of Big Data, which has become the norm in all aspects of life, including business, is overwhelming to the human intellectual capacity to process it all for decision making. AI aided decision making eliminates the human limitations highlighted earlier on. The AI systems do not get human fatigue and biases and can handle Big Data, which humans cannot handle. These can process large chunks of unstructured information in a short space of time and produce results that will aid decision making.

The findings also indicated that there are five AI-driven decision support systems namely: model-driven, data-driven, communication-driven, document-driven and knowledge-driven. Examples of specific systems under the five include marketing decision making, customer relationship management and opinion mining. These AI-aided decision support systems do not necessarily replace humans in decision making but there are there to support humans in their cognitive limitations, which are characterised by human errors, human fatigue and bias. The adoption of these systems could improve the decision making process by management in firms and improve the performance of firms as well as adding value of organisations. As highlighted by Shika (n.d.), the quality of decisions taken by a manager at all levels determines the success or failure of an organisation. Further, Blenko et al. (2010) posited that the value of an organisation is the sum of the decision that it makes and implements. Findings also indicated the merits and demerits of the AI aided decision making systems. With merits seemingly more than demerits, big, small and medium businesses that have adopted these systems have largely enjoyed the benefits but with some firms, there are still challenges to their adoption with one reason being that the process of training AI with data was more difficult than they expected (Dialani (2020).

6. CONCLUSION

This paper was a narrative overview of traditional decision making versus artificial intelligence aided decision making in the management of firms. With technologies ever-evolving, the paper sought to indicate that traditional decision making was no longer sustainable for decision making in the era of Big Data. Then, the paper identified the AI aided decision making systems and technologies that could be employed in decision making and how they can improve the process of traditional decision making in the management of firms. It was established that AI aided decision making systems have more merits than traditional decision making and that both small and medium businesses that had adopted AI in decision making benefited immensely from this. Findings also established that, despite the benefits, some organisations are reluctant to adopt the AI decision aided systems because of some of the potential challenges experienced when adopting the systems. The paper recommends further empirical research on how AI could be used in other management practices, which are outside decision making.

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ANALYSING LABOUR MARKET DISCOURAGEMENT IN SOUTH AFRICA'S LABOUR MARKET

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ABSTRACT

Labour markets across the world have in recent years been characterised by instability and scarce employment opportunities. Additionally, this has seen many work-seekers exiting the labour market having searched for employment without any success. This is not unique to South Africa as the country is plagued with very high unemployment rates and a unique case of a significant amount of discouragement among its work-seekers. While unemployment indicators have largely followed international standards, the failure to incorporate those who have abstained from job searching has inadvertently contributed to a lack of understanding regarding the nature of discouragement in the labour market. This study uses survey data from Statistics South Africa's quarterly labour force survey of 2020 with the primary objective of analysing the impact of several factors that influence discouragement in the South African labour market. A quantitative approach and cross-sectional research design were employed, while a post-positive paradigm served as the philosophical base of the inquiry. The analysis comprised descriptive statistics through the use of frequency and percentage distributions to give a comprehensive overview of the sample. In addition to these, inferential techniques such as cross-tabulations were used to ascertain whether any notable differences were present in the labour market experiences of the participants. Finally, for the purpose of identifying the factors affecting the labour market participants' likelihood of discouragement, a binary logistic regression was employed. The findings indicate that discouragement is influenced by a myriad of factors, which aggravate the current situation, including the uneven nature of South Africa's spatial economy instilling high search costs, a non-responsive education system and under-developed informal sector. These results carry imperative implications towards comprehending the dynamics surrounding the functioning of labour markets, especially from the context of a developing country struggling with significantly high rates of unemployment. The study suggests several practical recommendations that prove effective in addressing the issue of labour market discouragement.

Keywords: discouragement; work-seekers; labour market; employment; South Africa

1. INTRODUCTION

Many labour markets across the world have been characterised by instability and scarce employment opportunities. Underlying the issue are the extensive numbers of the people entering labour markets

each year and the absence of job opportunities in many countries (International Labour Organization, (ILO), 2020b). Worsening the situation is the fact that stable employment is becoming increasingly difficult to find (ILO2015:13), despite the massive technological change and a rise in the significance of education for better employment prospects. Even though the 21st century has carried with it massive technological change and a rise in the significance of education for better employment prospects, it has brought about expanded vulnerability, which has neglected to ensure employment for work-searchers. For those who want to work, the inability to find employment has been a source of vast adversities both personally and economically. This is not unique to South Africa as the country is plagued with very high unemployment rates across all age categories and continually rising numbers of discouraged work-seekers (Mlatsheni & Ranchhod, 2017).

Although unemployment indicators have to a great extent followed international standards, the failure to incorporate those who have abstained from searching has inadvertently contributed to a lack of understanding regarding the nature of discouragement in the labour market. The ongoing Covid-19 pandemic has also not made things easy, causing substantial declines in standards of living, with the *Covid-19 and the world of work* report showing very high workplace closures and labour income losses across the world (ILO, 2020a, p. 1). These changes have hindered the effective functioning of labour markets (Mncayi, 2020), with great distortions between the demand and supply of labour. Discouraged workers are unfailingly the least content with their lives, and the life dissatisfaction rates are more pronounced among young people aged 25 to 35 (Stats SA, 2021). Therefore, over and above unsuccessful employment search, which factors discourage work-seekers from their employment pursuit? Against this background, the aim of this study is to identify factors affecting the discouragement of workers in the South African labour market. It is hoped that such a study will help in shedding light on understanding labour market dynamics of a typical developing country, particularly within the African context. The rest of the article is organised as follows: Section 2 reviews the literature on labour market discouragement; section 3 presents the methodological processes followed as well as the models employed in the study. The results are discussed in section 4. Section 5 will conclude the study and provide recommendations.

2. LITERATURE REVIEW

2.1 Theoretical background on labour market discouragement

Unemployment has taken centre stage since the dawn of the 21st century, gaining unprecedented attention on both national and global development agendas (e.g. Altbeker & Storme, 2013; Baldry, 2016; ILO, 2016). On the other hand, there are instances of hidden unemployment, which is often experienced by discouraged workers, who, according to Wilkins and Wooden (2011) and Semenova, Zaytseva and Gordeeva et al (2020), would prefer to be in employment although they are outside the labour force, perhaps due to weak employment opportunities, among others. Discouraged workers and other inactive persons within the labour force are subsets of the non-economically active and have given up job search even though they want to work and are currently available to do so (discouraged workers) (Sengenberger, 2011). Cichello, Leibbrandt and Woolard (2014, p. 2) describe a discouraged work-seeker as “*unemployed people who would have liked to have worked in the past*

four weeks, but have not actively searched for employment in that same time period.” In other words, these work-seekers have looked for work in the past although not recently but because of poor job prospects, they have given up their job search (Kaufman & Hotchkiss, 1999:10-11). At times, poverty arises because of being without work for a very long time before totally giving up the pursuit of employment (i.e. discouraged) or making due with jobs that are not ideal. The greater part of those considered discouraged are frequently alluded to as inactive since they do not meet all conditions (such as active job search) of being regarded as unemployed (Eurofound, 2017, p. 7). The active job search requirement is explained by the difference between the expanded and strict definition of unemployment, where, for an individual to be considered unemployed, according to the latter definition, active steps much have been taken to find employment in the previous week. The former definition only requires a desire to find employment, even though the individual did not actively look for employment. Despite the fact that it is simpler to recognise workers who are unemployed, there are challenges that come with identifying discouraged workers (Hoti, 2017, p. 249). The ILO (2016, p. 2) argues that unemployment figures have over the years understated the magnitude of labour market challenges confronting people, since a substantial number of people have actually stopped searching for employment although they still have a desire to find it should there be one.

According to conventional theory, the demand for and supply of labour are determined by many factors that may force an individual to exit the labour market. Be that as it may, practically speaking, it is difficult to undoubtedly differentiate among individual and labour-market related reasons for being a discouraged worker (Suryadarma et al., 2005). Looking at employment search and geographical location, many people may not actively search for work mainly as a result of the inability to access areas that could potentially provide employment (Mlatsheni & Ranchhod, 2017). One theory that explains this phenomenon is the spatial-mismatch theory that stemmed from the premise that minorities from inner cities of the US were most likely to encounter poor employment outcomes (high unemployment and low wages) since they are secluded from job opportunities (Kain, 1968, p. 17). This theory believes that individuals in small local labour markets, which are usually situated in rural regions, have a constrained ability to migrate or travel and as such will probably give up their job search (Mncayi, 2020). Possible spatial mismatch has been observed in South Africa’s metropolitan labour markets, with noticeable differences found between urban cities and those at the periphery, consequently causing large disparities between black and white unemployment rates (Socio-Economic Rights Institute of South Africa, 2016).

Turning to job search, gender and marital status, literature reveals that a woman’s marital status influences her behaviour in the labour market (Angrave & Charlwood, 2015, p. 1503). Family responsibilities may constrain the labour force behaviour of married women unlike that of single women (ILO, 2018). With regard to search and the level of education, global evidence confirms that generally the higher the level of educational attainment of youth, the higher the probability of them finding employment (World Development Report, 2007). The level of education is also equally important for employment outcomes, since labour market inactivity is more pronounced among those with lower levels of education (World Bank, 2014, p. 28).

Race is another factor that seem to have an impact on employment outcomes, where racial minorities

are often associated with negative employment outcomes. Non-white workers in comparison to their white counterparts have the highest probability of experiencing negative employment outcomes (Bell & Blanchflower, 2013, p. 17). A country's economic environment assumes a significant role in the overall development of its citizens, including the likelihood of finding employment. For as long as recessionary periods last, employment slows down, while some workers withdraw from the labour force because of the *discouraged worker* effect (Gong, 2010, p. 2-3) by completely surrendering the pursuit of employment, even though they still want a job. Nonetheless, Hoti (2017, p. 250) contends for the incorporation of the discouraged work-seekers in a labour market essentially on the grounds that these workers are behaviourally like those who are unemployed (for example they will in general enter work during a cyclical upswing). The next sub-section provides a brief overview of the South African labour market.

2.2 Overview of South Africa's labour market

South Africa has come a long way since the end of its racially discriminative legislature in 1994; however, challenges such as poverty and poor labour market conditions still prevail (Beukes et al., 2016; Statistics South Africa (StatsSA), 2017, p. 12). In South Africa, the reasons for the increased interest in the labour market prospects are extensive and as a result form part of the current debates on the post-apartheid labour market (Rogan, Reynolds, du Plessis, Bally & Whitfield, 2015, p. viii). The current global pandemic, in addition to a structurally weak economy, has also not made things any easier for the economy in trying to create the much needed employment opportunities. For instance, between 2003 and 2020, the unemployment rate, according to the strict definition, has averaged at more than 20 percent, indicative of chronic unemployment. Between January and June 2020, more than 3 million jobs had been shed, raising the official unemployment rate to 30 percent, and the expanded unemployment rate to 45 percent; the highest on record (StatsSA, 2020a). Young people (below 34 years) are, in fact, the most affected among all age groups as they constitute a high proportion of individuals experiencing negative employment outcomes. Their unemployment is more than double the national average at more than 60 per cent in the second quarter of 2020 (Stats SA, 2020b, p. 16). All this has meant that the country is suffering from chronic labour market failure when compared to several countries in the world (Cassim & Oosthuizen, 2014).

Discouragement is also another growing factor where, for instance, between 2008 and 2020Q2, the country registered a growing number of discouraged young work-seekers in South Africa, which increased to 2.5 million from 756 000 (Stats SA, 2020a, p. 4). In terms of various age categories within the youth cohort, discouragement rates average at more 30 per cent for those between the ages of 15 and 19; more than 20 per cent for the 20 to 24 age category; 10 per cent for those 25 to 29, and less than 10 per cent for those older than 30 (De Lannoy, Graham, Patel & Leibbrandt, 2018, p. 8), signifying that discouragement seems to be declining by age, which implies that the older young people become, the more likely they are to find their way back into the labour market. At the same time, the increased poverty and inequality rates have implied that the poor, which constitute the majority of the unemployment, remain in the vicious cycle of long-term unemployment, which further fuels the chances of never getting back to the labour market, simultaneously fuelling negative material, social and psychological repercussions (World Bank, 2014, p. 28). These challenges

emphasise the helplessness in the labour market and could lead to far-reaching socio-economic consequences such as poverty, putting people at an increased probability of falling into poverty and crime, among other issues (Mncayi, 2020).

The existence of significant job discouragement in the labour market has led to continuously rising incidences of long-term unemployment (Business Tech, 2021), a factor that fuels lower chances of finding employment. South Africa’s inability to create sustainable employment is further evidenced by the already poor absorption rates, which saw a further decline to 36.3 percent from 42 percent in 2010 (StatsSA, 2020a, p. 8). The large gaps between the strict and expanded unemployment rates are often seen as an indication of growing numbers of working-age people giving up their employment search (see Figure 2.1 below). As argued by Hoti (2018, p. 249), the discouragement effect is much more acute in high unemployment economies. Indeed, the statistics are even worse among different racial categories, with blacks in general, and black women in particular, being over represented in both the unemployment rates (regardless of the definition used) and the discouragement rates. The worsening labour market situation, according to the ILO (2020a), mirrors the situation in many countries around the world; developed and developing economies alike.

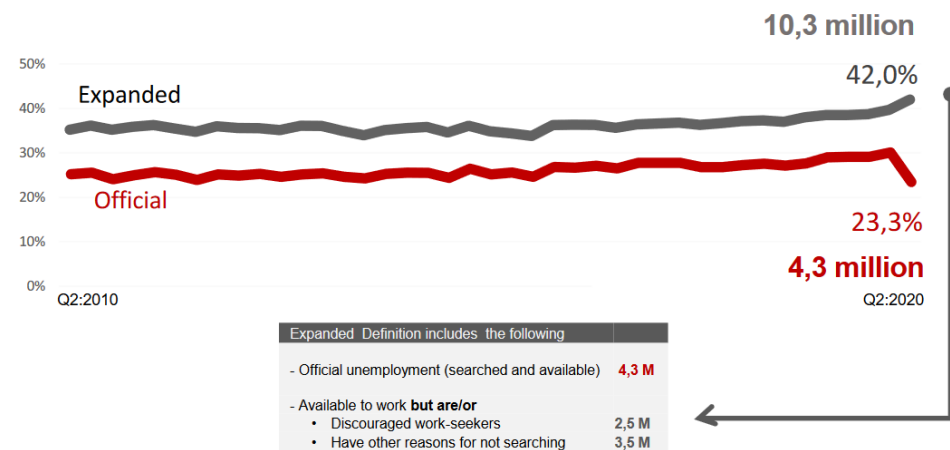


Figure 2.1: Comparing the strict and expanded unemployment rates (2010Q2-2020Q2)

Source: Statistic South Africa (2020b)

In their study, which examined the reasons why young South Africans are not looking for employment, Mncayi and Mdluli (2019, p. 302) found that the scarcity of employment in the area is one of the main reasons, as well as the lack of financial resources to assist with work-seeking. Mlatsheni and Ranchhod (2017, p. 8) cite that financial constraints often inhibit active employment search, which is accompanied by low chances of finding work, which shows the importance of the accessibility and usage of networks in finding work. In a study that examined reasons for not searching for employment in Kosova, an estimated 18 per cent of discouraged individuals stopped their job search mainly because they could not find any, indicative of a pronounced discouraged-worker effect in many transition economies (Hoti, 2017, p. 251). The study further found that demand-side restrictions push large numbers of Kosovars into inactivity (i.e. the discouraged

workers) that would otherwise be searching for jobs. In Tunisia, discouragement is more acute among the youth and women in rural areas, mainly because of existing barriers to employment hubs, which prevent their social inclusion (World Bank, 2015).

3 RESEARCH METHODOLOGY

This section of the study is directed at the elucidating on the objective of the study and the research methods that were employed towards achieving these goals. In doing so, the section starts with a discussion pertaining to the research design, while likewise elaborating on the data that were used. This is followed by an explanation on the various analysis techniques that were employed. The section then finally concludes by discussing the employed regression model, highlighting the various regressors that are regarded as potential factors that affect labour market participants' willingness to actively search for work.

3.1 Research design and sample

In line with the aforementioned, the study had the focal purpose of analysing the factors that affect discouragement within the South African labour market. Towards achieving this objective, survey data from Statistics South Africa's (StatsSA) first quarterly labour force survey of 2020 were used. As such, a quantitative approach was deemed fit for the inquiry mainly through the use of a cross-sectional research design. Both qualitative and quantitative elements were included in the study. The former was presented on the basis of an in-depth literature review, while the latter is based on the various analysis techniques that were employed to analyse the collected data from the sample. The latter consisted of those individuals who were actively looking for work, including both those individuals who were employed and unemployed. Moreover, individuals who identified themselves as discouraged were included. Based on these outlined criteria, the final sample comprised a total of 28 001 individuals situated across all nine provinces within the country.

3.2 Analysis of the data and model specification

After obtaining the data from the StatsSA database, the data were coded and analysed through the use of the Statistical Package for Social Science software (SPSS) version 26. Various analysis techniques were used, which included descriptive statistics such as frequency distributions towards reporting on the demographic characteristics of the participants. In addition to this, a binary logistic regression model was utilised with the purpose to determine the impact of various socio-economic economic characteristics on the likelihood of participants to be discouraged in their job seeking efforts. Based on the literature and empirical review, a total of seven regressors were identified that could potentially influence this behaviour. Table 1 below provides an overview on each of these selected explanatory variables indicating their associated denotation as well as the coding criteria that were applied.

Table 1: The identified explanatory variables and their denotations

| Variable | Denotation | Coding criteria |
|------------------------------------|------------|--|
| Age | AGE_i | Categorical variable. Three dummy variables created where 1 = 15 – 24 years and 0 = Otherwise; 1 = 25 – 34 years and 0 = Otherwise; 1 = 35 – 50 years and 0 = Otherwise. Those older than 50 years were used as the reference group. |
| Race | $RACE_i$ | Categorical variable with two dummy variables created. Here 1 = Black / African and 0 = Otherwise; 1 = Other racial groups 0 = Otherwise; Whites used as reference group. |
| Gender | GEN_i | Dichotomous variables were 1 = Female and 0 = Male. |
| Geographic location | GEO_i | Dichotomous variable were 1 = Urban and 0 = Rural. |
| Level of education | LOE_i | Categorical variable. Three dummy variables created. Here 1 = Primary level and 0 = Otherwise; 1 = Secondary level and 0 = Otherwise; 1 = post-secondary / technical training and 0 = Otherwise; Tertiary level used as reference group. |
| Marital status | MS_i | Dichotomous variable. 1 = Married / living together and 0 = Otherwise. |
| Involvement in non-market activity | NMA_i | Dichotomous variable. 1 = Yes and 0 = No. |

Source: Author’s own compilation

In addition to the explanatory variables, as shown in Table 1, the dependent variable (employment status of the participant) was entered into the model dichotomously, where 1 = discouragement among the work-seekers and 0 = either employed or unemployed (but actively looking for a job). This was done to ascertain the nature of the participants’ decision to abstain from actively participating in labour market processes regardless of whether the search process was successful or not. By doing so, and subsequently determining the impact of the identified seven regressors, the binary logistic regression as shown in equation 1 was estimated:

$$ES_i = \theta_0 + \theta_1 AGE_i + \theta_2 RACE_i + \theta_3 GEN_i + \theta_4 GEO_i + \theta_5 LOE_i + \theta_6 MS_i + \theta_7 NMA_i + u_i \quad (1)$$

Where ES_i represents the dependent variable, the participants employment status, θ_0 is indicative of the constant and u_i represents the error term. In addition to this, $\theta_1, \theta_2, \theta_3, \dots, \theta_n$ represented the coefficients of each of the individual regressors that was deemed to affect discouragement within the South African labour market. Finally, towards ascertaining the reliability of the results, various diagnostic tests were employed. This included the use of both the omnibus test of model coefficients as well as the Hosmer and Lemeshow test in order to determine whether the utilised model was a good fit with the data (Hosmer & Lemeshow, 2000). In addition to this, both variance inflator factors and tolerance values were estimated to ensure that no serial threat of multicollinearity existed between the regressors and that any estimation of spurious results was avoided.

4. RESULTS AND DISCUSSIONS

The first step in the analysis pertained the description of the sample’s demographic and socio-economic characteristics with the purpose of better comprehending the challenges surrounding their labour market dynamics. Table 2 below shows these results. From the statistics that are shown it is evident that a large majority of the sample was between the ages of 35 and 50 years (45.2%). This was closely followed by the 25- to 34-year age group (31.8%), which is indicative of a more experienced and older labour force. Age groupings on either side of the age continuum in this regard showed lower participants as would be expected with new labour market participants transitioning into the labour market, while older retiring labourers exited the market. In addition to these estimates, race composition seemed to follow the national estimates. More than 80 percent of the sample identified themselves as black/African, while 9.3 percent were coloured. Only 6.4 percent of the participants identified themselves as white. From a gender perspective, the sample was more evenly distributed, with slightly more males (50.8%) than females (49.2%) represented.

Table 2: Demographic background of the participants

| Aspect | Sub-cat. | F | % | Aspect | Sub-cat. | F | % |
|--------------------------|----------------------------|--------|------|--------------------|-----------------|--------|------|
| Age | 15 to 24 years | 3658 | 13.1 | Level of education | No schooling | 490 | 1.7 |
| | 25-34 years | 8898 | 31.8 | | Primary level | 2873 | 10.3 |
| | 35-50 years | 10 942 | 39.1 | | Secondary level | 20 090 | 71.7 |
| | + 50 years | 4503 | 16.1 | | Post-secondary | 259 | 0.9 |
| Race | Black / African | 22 984 | 82.1 | Tertiary | 4289 | 15.3 | |
| | Coloured | 2 611 | 9.3 | Western Cape | 3044 | 10.5 | |
| | Asian / Indian | 532 | 1.9 | Eastern Cape | 2950 | 10.9 | |
| | White | 1 874 | 6.7 | Northern Cape | 1100 | 3.9 | |
| Gender | Male | 14 223 | 50.8 | Free State | 1771 | 6.3 | |
| | Female | 13 778 | 49.2 | KwaZulu-Natal | 4474 | 16.0 | |
| Marital status | Married / living together | 11 056 | 39.5 | Province | North West | 1490 | 5.3 |
| | Not married / Living alone | 16 945 | 60.5 | | Gauteng | 8059 | 28.8 |
| | Less than 6 months | 1433 | 5.1 | | Mpumalanga | 2329 | 8.3 |
| Longevity of work search | 6 months to 1 year | 712 | 2.5 | Limpopo | 2784 | 9.9 | |
| | 1 to 3 years | 1603 | 5.7 | Employed | 17 320 | 61.9 | |
| | More than 3 years | 3734 | 13.3 | Unemployed | 7 522 | 26.9 | |
| | Did not disclose | 20 519 | 73.2 | Discouraged | 3 159 | 11.3 | |

Source: Calculations from QLFS data (2020)

As the level of education plays a pivotal role in the success of a work-seeker, responses towards the identification of the various skills levels were also included. Results from Table 2 above show that among the sample, more than two thirds of the participants attributed some form of secondary education (71.7%), while only 15.3 percent attributed a tertiary skill level. On a provincial level, the

distribution seems to be directed more towards urban areas that tend to have higher employment probabilities. As can be seen, 28.8 percent of the sample resided in the province of Gauteng, which was followed by those living in KwaZulu-Natal (16.0%), while approximately 10.9 percent of the participants were situated in the Western Cape. Finally, towards providing an indication of the difficulty in securing and finding employment, participants' longevity of their search efforts has also been analysed. Results from Table 2, that among those who did disclose the information, more participants (13.3%) indicated that they, whether successful or not, had been looking for work for more than three years compared to those who were searching for one to three years (5.7%) and those in the earlier stages of their search (2.5%).

After the descriptive analysis, the study ensued towards determining the key drivers of labour market discouragement. In doing so, a binary logistic regression model was employed. However, before estimating the results, various diagnostic tests were utilised to ensure the robustness of the results. This included the omnibus test of model coefficients as well as the Hosmer and Lemeshow test. Results, as reported in Table 3, show that both tests (omnibus; *sig. value* = 0.000; Hosmer and Lemeshow; *sig. value* = 0.161) conclude that the applied model was stable, while it fitted the used data well. In addition to this, Cox and Snell R-square (Cox & Snell, 1989) as well as the Nagelkerke R-square (Nagelkerke, 1991) values are reported. These were estimated at 0.370 and 0.441, respectively, indicating that the included independent regressors explained 37 and 44.1 percent of the variation in the search effort of the participants.

Table 3: Diagnostic tests and summary results for the binary logistic regression model

| Omnibus test of model coefficients | | Hosmer and Lemeshow test | |
|------------------------------------|--------------------------------|-----------------------------|-----------------|
| Chi-square = 2042.49 | p-value = 0.000 | Chi-square = 11.784 | p-value = 0.161 |
| -2 Log Likelihood = 17 226.243 | Cox and Snell R-square = 0.370 | Nagelkerke R-Square = 0.441 | |

Source: Calculations from QLFS survey data (2020)

Finally, Table 4 reports the results on the binary logistic regression model. Among the results, it is evident that the likelihood of abstaining from the search process is driven by several factors. Firstly, among the included age variables, results as shown signify that younger aged work-seekers were more likely to refrain from the search process. In fact, compared to those aged above 50 years (reference category), the odds ratio of 3.339 infers that an individual work-seeker between the ages of 15 and 24 years was 234 percent (3.339 – 1) more likely to be classified as discouraged. This finding emanates from the severe struggle young people face in securing work in the country. According to StatsSA (2020), young people within this age bracket accounted for 63.3 percent of the total amount of people who were unemployed in the first quarter of 2020. These struggles have been continuously linked to disengagement of the labour market, posing severe consequences for the economy, including an erosion of skills sets leading to drastic scarring effects (Wilson et al., 2020, p. 16).

Based on race, results show a positive coefficient (B) for the African/black category, inferring that participants from this racial group were more likely to be classified as discouraged when compared to their white (reference group) counterparts. These results were also evident for other racial groups, all attributing statistically significant relationships with the dependent variable (*p-values* = 0.000).

These results point to the idiosyncratic history of the country along its racial lines. While labour market outcomes for many have improved since the country’s transition to democracy, the significant backlog in non-white education and the lack of access to quality institutions continues to persist, inadvertently causing greater difficulties in securing work for these racial groups (StatsSA, 2018, p. 39). As opposed to the results relating to the racial aspect of labour market discouragement, geographic location exhibited a negative coefficient, suggesting that residing in urban areas attributed a lower likelihood of discouragement. The odds ratio of 0.318 implies that those residing in more urban provinces are 68.2 (1 – 0.318) percent less likely to abstain from searching for a job as opposed to those who reside in more rural-based provinces. These results are in line with the arguments of Alenda-Demoutiez and Mügge (2020, p. 594) as well as Kain (1968), who acknowledge the role that spatial inequalities play within the search process. From their point of view, being situated far from possible work opportunities brings with it additional search costs, which could induce disengagement from the labour market, especially given the fact that majority of poor households in the country are situated on the periphery of business centres (Mlatsheni & Ranchhod, 2017, p. 9).

Table 4: Binary logistic regression results

| Variable | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I. for EXP(B) | |
|---|--------|-------|---------|----|--------|--------|---------------------|-------|
| | | | | | | | Lower | Upper |
| Age (50+) (Reference group) | | | 273.019 | 3 | 0.000* | | | |
| 15 to 24 years | 1.206 | 0.097 | 152.969 | 1 | 0.000* | 3.339 | 2.758 | 4.042 |
| 25 to 34 years | 0.652 | 0.092 | 49.875 | 1 | 0.000* | 1.919 | 1.602 | 2.300 |
| 35 to 50 years | 0.332 | 0.090 | 13.688 | 1 | 0.000* | 1.393 | 1.169 | 1.661 |
| Race (white) (Reference group) | | | 53.867 | 2 | 0.000* | | | |
| African/black | 0.992 | 0.181 | 30.132 | 1 | 0.000* | 2.697 | 1.893 | 3.844 |
| Other races | 0.561 | 0.195 | 8.260 | 1 | 0.004* | 1.752 | 1.195 | 2.569 |
| Gender (female) | 0.480 | 0.041 | 139.135 | 1 | 0.000* | 1.617 | 1.493 | 1.751 |
| Geographic location (urban) | -1.147 | 0.043 | 704.956 | 1 | 0.000* | 0.318 | 0.292 | 0.346 |
| Education (no schooling) (reference group) | | | 184.024 | 4 | 0.000* | | | |
| Primary | 0.186 | 0.140 | 1.769 | 1 | 0.184 | 1.204 | 0.916 | 1.584 |
| Secondary | -0.052 | 0.134 | 0.153 | 1 | 0.696 | 0.949 | 0.730 | 1.234 |
| Post-secondary Diploma/technical qualification | -0.153 | 0.255 | 0.361 | 1 | 0.548 | 0.858 | 0.520 | 1.414 |
| Tertiary | -1.203 | 0.159 | 57.280 | 1 | 0.000* | 0.300 | 0.220 | 0.410 |
| Marital status (Married/living together) | -0.326 | 0.048 | 46.865 | 1 | 0.000* | 0.722 | 0.658 | 0.793 |
| Non-market activity (yes) | -0.087 | 0.055 | 2.547 | 1 | 0.110 | 0.917 | 0.824 | 1.020 |
| Constant | -2.921 | 0.232 | 158.095 | 1 | 0.000* | 0.054 | | |

Source: Calculations from QLFS survey data (2020)

Given the associated gender dynamics as discussed in section 2, the study sought to analyse the influence of gender on the participants' likelihood to stop searching for work. Results from Table 4 show a statistically significant positive coefficient. Given that the reference group in this instance was male, this infers that females attributed a higher likelihood of discouragement in the South African labour market. In fact, the odds ratio of 1.617 infers that females are 61.7 percent ($1.617 - 1$) more likely to abstain from the searching process than their male counterparts. These results resonate with the fact that labour market outcomes within the South African context have been known to be gender-biased (Mackett, 2016, p. 34). These outcomes and more specifically lower participation levels among women have been ascribed to several aspects, including additional care-taking responsibilities associated with child rearing and fertility, discriminatory employment practices, a highly segmented labour market as well as weak levels of bargaining power (Idowu & Owoeye, 2019, p. 15). In addition to these gender dynamics, the role education plays in any labour market process cannot be ignored. From the results as shown in Table 4, it seems that all levels of education (except the primary level) attributed negative coefficients signifying lower probabilities of discouragement when compared to those with no schooling. However, only tertiary levels seem to display a negative and statistically significant ($p\text{-value} = 0.000$) relationship. These relationships do tend to confirm *a priori* expectations that with higher education levels the chances of being classified as discouraged diminish. For South Africa in particular, challenges in the demand for labour have been greatly influenced by significant levels of skills mismatches (De Lannoy et al., 2018, p. 21). This, in particular, has been compounded by the country's move to the fourth industrial revolution (4IR) seeing demand for higher technical skills greatly outweigh that of lower-order skill sets (Sutherland, 2020, p. 247).

As part of understanding the intra-household dynamics within these contexts, the study sought to analyse whether the participants' marital status (living arrangements) has an impact on the likelihood of continuing or abstaining from the work search process. The variable was coded dichotomously where being married or living with a partner was coded as 1, while living on their own or being single was coded with a 0. Results from Table 4 show a statistically significant and negative coefficient. This infers that having a partner induces a lower likelihood of labour market discouragement. From this point of view, the odds ratio of 0.722 signifies that married or co-habitant couples are 28.8 percent less likely to stop searching for a job compared to those living on their own. The explanation of this finding is two-fold. Firstly, having a partner provides additional social capital, providing access to networks and information that ease the search process and promote a more efficient employee-employer match (de Jongh, 2017, p. 157). Secondly, as partners, it likewise provides access to additional resources (both monetary and time-related), which possibly could be used to overcome certain participation barriers such as high search costs (Elima, 2015, p. 24). Finally, given the noteworthy level of informal activity within South Africa's labour market, it was important to see if even though participants did not have a job, their involvement in non-market activities spurred on their search efforts. In this regard, the results showcased a negative coefficient, suggesting that the activities did in fact assist in lowering the likelihood of discouragement. The $p\text{-value}$ of 0.110, however, does infer that involvement in these types of activities was not a significant factor in determining the participants' choice of continuing or abstaining from searching for work.

5. CONCLUSION AND RECOMMENDATIONS

The difficulty for those who are willing to work but unable to find employment signals dire sights of adversity and destitution. As countries increasingly seek ways to improve the lives of their citizens and promote their levels of development, the effective use of its labour resources has become vitally important. This holds even more relevance within the context of developing regions as labour and the employment thereof are key pillars driving the process of industrialisation. Therefore, situations in which these resources are left unused not only signal the loss of valuable potential for socio-economic upliftment, but likewise the forfeiture of the pathway to sustainable living. In light of this, and with the means of furthering the knowledge on people's disengagement with labour market processes, the study sought to determine the key factors that drive discouragement within the South African labour market. In doing so, the study revealed the process to be intricate and multi-dimensional. Much like other developing regions, it seems the labour market exhibits a low absorption capacity, which has largely been driven by a lack of notable growth for the past 10 years. More prominently, structural mismatches are exhibited in which demand is directed more towards higher skilled workers as the country facilitates its move towards the 4IR. Nonetheless, as much as the drivers resemble evidence from the international context, so too does it embody its own idiosyncratic features. Among these, a lack of the necessary social capital and networks among work seekers was evident, all which contribute to the likelihood of abnegation in job search activity. In addition to these findings, various demographic variables such as age, race and geographical location were found to be significant predictors, all which aggravate the current situation. Within this context, the uneven nature of South Africa's spatial economy acts as a significant barrier instilling high search costs, while a non-responsive education system and an under developed informal sector have failed to assist labour market participants in their transition to formal and well-remunerated employment opportunities.

These results carry imperative implications towards comprehending the dynamics surrounding the functioning of labour markets, especially from the context of a developing country struggling with significantly high rates of unemployment. As much as discouragement is driven by the lack of decent employment opportunities, it is aggravated by various structural features. Therefore, in addressing the situation, a drastic shift in policy formulation directed towards the labour market as well as the creation of sustainable inclusive growth are recommended. This should include the relaxation of labour market regulations and the creation of enabling environments for the private sector. The quality of educational institutions should also be rapidly improved, especially at secondary level. This should entail the introduction of work-integrated learning (WIL) programmes in curricula with the purpose of better equipping future labour market entrants with the needed information and required skill sets for the world of work. Moreover, strategies directed towards the development of quality labour market services such as intermediation, the provision of public works programmes and job search assistance should be proliferated with the purpose to improve the job seeker-employer matching process. While the study has provided some unique insight into the matter, it has not been without its own limitations. Central among these has been the use of a cross-sectional dataset, which has restricted insight into a specific point in time. Future studies can therefore try to incorporate more longitudinal designs. In addition to this, given that the study only focused on national-level data, intra-

provincial comparisons on these factors can also provide additional insight, specifically towards understanding the spatial inequalities within the South African context.

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THE IMPACT OF UNIVERSITY ENVIRONMENT AND CULTURE ON ENTREPRENEURIAL BARRIERS AND INTENTIONS: INVESTIGATING THE MEDIATION ROLE OF PUBLIC INFRASTRUCTURE

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ABSTRACT

This study investigated four objectives, that is whether a non-entrepreneurship-oriented university environment predicts entrepreneurship barriers. The second objective investigated whether an entrepreneurial-oriented university environment predicts entrepreneurship intentions among learners. The third objective sought to determine whether public infrastructure mediates the relationship between a non-entrepreneurship-oriented university environment and entrepreneurship barriers and the last objective investigated whether public infrastructure mediates the relationship between an entrepreneurship-oriented university environment and entrepreneurship intentions. The study is quantitative in nature and explanatory by design. Primary data was gathered through self-administered questionnaires from 400 university learners and analysed through simple linear regression analysis. To investigate mediation, hierarchical regression analysis was undertaken. The study found that a non-entrepreneurship-oriented university environment predicts entrepreneurship barriers, and an entrepreneurial-oriented university environment predicts entrepreneurship intentions among learners. Hierarchical regression analysis results revealed that public infrastructure does not mediate the relationship between a non-entrepreneurship-oriented university environment and entrepreneurship barriers. The results further revealed that public infrastructure does not mediate the relationship between an entrepreneurial university environment and entrepreneurship intentions. The study concluded that to enhance entrepreneurship behaviour among university learners, widespread entrepreneurship education must be adopted. However, to ensure that widespread entrepreneurship is a success in South African universities, the resource gap should be addressed through co-evolving, development of skills and innovation.

Keywords: University environment, culture, entrepreneurship, barriers, intentions

1. INTRODUCTION

Across the globe, there is a strong belief that entrepreneurship is an attitude and therefore it can be learnt. In that regard, institutions of higher learning, that is, universities and vocational colleges allocate a significant budget to create a conducive environment for students to learn critical skills towards becoming entrepreneurs (Guerrero & Urbano, 2012; Wright, Siegel & Mustar, 2017). As institutions of higher learning continue to invest in creating a better environment for would be entrepreneurs, learners have become an attractive sample for research focusing on entrepreneurial intentions (Şeşen & Pruett, 2014).

Unlike old university models which prepared the learner for the labour market (formal employment), the current university curriculum is made up of classroom and outside classroom activities which are designed to empower learners with multiple employability options. These include running their own entrepreneurial ventures or seeking formal employment (Audretsch, 2014; Guerrero, Cunningham & Urbano, 2015; Guerrero & Urbano, 2019). This could be viewed as a response to the increased problem of graduate unemployment globally. However, for such noble efforts to yield the desired results, the university must have relevant resources, capabilities, support mechanisms and educational programmes to create a university environment or an entrepreneurial university ecosystem that will stimulate and enhance the entrepreneurial behaviour among learners (Wissema, 2009). In the context of this study, the term university environment refers to activities that support the demonstration of entrepreneurial behaviour among learners. These include entrepreneurship courses, university incubators, community engagement activities that are entrepreneurship oriented, entrepreneurship coaches and mentors in the form of alumni, science parks and entrepreneurial competitions on campus and beyond.

Universities differ in terms of their focus, operations, research quality, history, culture, location, networks, alumni and resources. The mentioned factors influence capabilities of universities. What each university can and cannot do has an impact on how it approaches entrepreneurial education (Clarysse, Wright, Lockett, van de Velde & Vohora, 2005). Further, this has a spillover effect on learner entrepreneurship barriers and intentions. For example, research argues that universities with competitive and established computer science, medical, engineering, agriculture and commerce faculties are able to influence different types of entrepreneurial initiatives from their learners, as opposed to those whose emphasis is on arts and humanities (Wright, Siegel & Mustar, 2017). It is therefore the goal of this study to, among others, investigate whether university environment predicts student entrepreneurial barriers and intentions. Empirical evidence on this subject is scarce from an emerging economy perspective and this study seeks to fill this void.

Scholars have further observed that the rate at which individuals participate in entrepreneurial activities is different by country, making the concept of culture more critical in an attempt to understand individual entrepreneurial behaviour (Giacomin, Janssen, Pruett, Shinnar, Llopis & Toney, 2011). This raises the question, “does culture predict entrepreneurial barriers and intentions among university learners?” To advance theory, there is a need for answers from emerging economies, for example South Africa and this study seeks to contribute to this debate focusing on three approaches, namely the aggregate psychological traits, the social legitimation and the dissatisfaction approach.

Iakovleva, Kolvereid and Stephan (2011) found that learners from emerging economies were more likely to exhibit entrepreneurial intentions better than learners from prosperous economies. In contrast, evidence from 59 countries provided by the Global Entrepreneurship Monitor reveals that the rate at which individuals participate in entrepreneurship is higher in developing countries than in developed countries (Bosma, Wennekers & Amoros, 2012). Wennekers, Van Stel, Thurik and Reynolds (2005) pointed out that the level of entrepreneurship contribution to a given economy varies owing to the size of the economy. Economy size in turn determines the level of public infrastructure

available to be exploited by individuals who intend to pursue entrepreneurship as a career. Public infrastructure in this study refers to mechanisms that are meant to stimulate and enhance entrepreneurial behaviour among citizens, for example private incubators, government-owned incubators, grants from private players, and grants from government agencies. In addition, this study further sought to answer the question, “does public infrastructure mediate the relationship between university environment, culture and entrepreneurial barriers and intentions among university learners?”

Leading universities across the globe are at the forefront of product commercialisation, and registration of new patents (Guerrero, Urbano & Gajón, 2020). There is a need to understand the role of the university environment, culture and public infrastructure towards entrepreneurship barriers and intent among learners if South Africa is to produce entrepreneurial graduates who will take a leading role in improving the gross domestic product of the country. Results of this research seek to contribute to this gap and further provide a platform for further research on this topic. The section to follow reviews literature and research hypotheses are formulated. Thereafter, the research methodology is discussed followed by results, discussion of the results, including recommendations to theory, policy and practice. Areas for future research and limitations of the study are then discussed and thereafter, the conclusion of the study is presented.

2. LITERATURE REVIEW

University environment and barriers to entrepreneurship

To better explain the concept of entrepreneurial barriers, research adopts an approach where the concept of entrepreneurial motives is explained first. Literature focusing on entrepreneurial motives and barriers categorises them into two distinct groups, that is intrinsic and extrinsic (see Finnerty & Krzystofik, 1985; Voley, Doss, Mazzarol & Thein, 1997; Choo & Wong, 2006; Birdthistle, 2008; Sandhu, Sidique & Riaz, 2011; Smith & Beasley, 2011; Giancomin et al., 2011). The studies mentioned above, on the one hand, point out that intrinsic motives towards starting an entrepreneurial venture range from creativity, autonomy, intrinsic rewards, control, and risk taking to personal development and professional dissatisfaction. On the other hand, extrinsic motivators towards starting an entrepreneurial venture are listed as pursuit of profit or financial gain, social status, safety orientation, market opportunity, and course content, among others. As explained earlier, entrepreneurial barriers are also categorised into intrinsic and extrinsic barriers. This section focuses on entrepreneurial barriers directly or indirectly related to the university environment.

One of the key mandates of universities is to develop student entrepreneurial competencies. In other words, activities within and outside the classroom must be designed to develop and nurture the learner’s entrepreneurial competencies, categorised by Giancomin et al. (2011) as an extrinsic barrier towards entrepreneurship, that is, if not fully developed. Similarly, the classroom activities and those beyond the classroom should be designed in such a way that they provide key answers to issues pertaining to lack of resources (Volery et al., 1997), viable business ideas, equity, customers, and social networking (Birdthistle, 2008). Smith and Beasley (2011) concurred and added that other issues that require immediate attention are lack of specific-sector coaches or mentors. Such key factors must

be theoretically and practically addressed by an effectively designed entrepreneurship curriculum. However, if the entrepreneurship curriculum is weak in any of these extrinsic factors, learners are more likely to have higher perceptions of entrepreneurial barriers owing to the university environment that is less entrepreneurial oriented. Further, the university environment is expected to positively develop learners in various intrinsic issues. For example, learners must have courage (Birdthistle, 2008), must be able to deal with stress, must be hard workers, risk oriented, and they should not fear failure (Sandhu et al., 2011). Smith and Beasley (2011) argued that the university environment must further provide opportunities for entrepreneurial experience where learners will gain critical general business knowledge. In addition, activities within and outside of the classroom must prepare learners to assume managerial responsibilities and other key business responsibilities which will increase the probability of success for the new venture. An entrepreneurship curriculum that is not theoretically and practically sound may not provide answers to the mentioned intrinsic and extrinsic factors which could lead to learners having higher perceptions of entrepreneurial barriers owing to the subsequent university environment that is less entrepreneurship oriented. In light of the above discussion, the study hypothesises that:

H1: University environment that is not entrepreneurship oriented predicts entrepreneurship barriers among learners.

University environment and entrepreneurship intentions

Entrepreneurial education is one of the top benefits for enrolling in institutions of higher learning. Other additional benefits do accrue to learners as a result of the institutions' reputation in terms of research, community engagement, and teaching and learning effectiveness. More importantly, community engagement allows institutions of higher learning to partake in activities beyond the classroom setting. These enable learners to take initiatives which involve experiential learning where they gain the needed personal experience to set up an entrepreneurial venture (Wright et al., 2017).

South Africa's institutions of higher learning can be categorised into resourceful universities and the under resourced universities (Jawitz, 2012). This divide is blamed on the pre-democratic era where some institutions were strictly Whites only, while others were designed to accommodate Black learners and other racially discriminated groups (Soudien, Michaels, Mthembi-Mahanyele, Nkomo, Nyanda, Nyoka et al., 2008). After democracy, very little has changed as a handful of wealthy Black and other previously discriminated groups can afford exorbitant fees charged by these institutions. In cases where young Black learners are accepted by formerly Whites only institutions, education standards are lowered (reverse racism) as they are perceived as undeserving, and people who lack the attributes to perform well in life (Daniels & Damons, 2011; Kessi & Cornell, 2016).

The South African government has been criticised for doing very little to change the resources disparity and transformation in institutions of higher learning (Govinder, Zondo & Makgoba, 2013). Surely this has a significant bearing in terms of research, community engagement and teaching and learning quality. These factors are critical towards creating a university environment with the capacity to develop, drive and sustain a positive entrepreneurial culture. Under normal circumstances, institutions of higher learning must be an environment where learners, regardless of race and

economic status, must freely demonstrate their entrepreneurial intent and capabilities. South African universities are still battling to create such a conducive environment. The Student in Free Enterprise (SIFE) organisation, now known as Enactus is one student organisation that is committed to entrepreneurial action. Its success is attributed to commitment from its members and support from academic and business leaders. The existence of such organisations in institutions of higher learning creates an entrepreneurial ecosystem that arguably enhances entrepreneurial intentions among learners. Research indicates that given an entrepreneurship-oriented university environment, entrepreneurs will emerge as the environment promotes and rewards entrepreneurship behaviour (Audretsch & Belitski, 2016; Carayannis, Provan & Grigoroudis, 2016). Given this discussion, the study hypothesises that:

H2: A university environment that is entrepreneurship oriented predicts entrepreneurship intentions among learners.

Culture and entrepreneurial behaviour

In simple terms, entrepreneurship is the willingness to start a new enterprise with the goal of making profits. Across the globe, there is variation in entrepreneurship behaviour among individuals. In some countries, the number of individuals who pursue entrepreneurship as a career is higher compared to other countries (Thurik & Dejardin, 2011). This study seeks to explain these variations from a cultural context making use of the aggregate psychological traits approach, the social legitimation or moral approval approach and the dissatisfaction approach.

Research shows that a link does exist between an individual's values and beliefs on the one hand and an individual's behaviour on the other (Mueller & Thomas, 2000). Based on this notion, it is relatively correct to state that to a larger extent, an individual's belief and values also influence their career choice such as being self-employed. In other words, culture, which is a sum of values and beliefs, therefore predicts entrepreneurship barriers and intent (Davidsson, 1995; Shane, 1993).

Entrepreneurship rewards individuals in many ways and the biggest reward according to the social legitimation approach is status. In communities where entrepreneurs are perceived to be very important individuals and are treated by the entire community as such, there is a high likelihood that a significant number of individuals would start demonstrating entrepreneurial behaviour (Etzioni, 1987). The dissatisfaction approach focuses on entrepreneurship behaviour at macro level and assumes that the differences between the population's values and beliefs leads to variations at which people would demonstrate entrepreneurial behaviour (Baum, Olian, Erez, Schnell, Smith, Sims, Scully & Smith, 1993).

In the context of this study, the majority of learners in South Africa face challenges such as academic and financial exclusion. It is the general belief that for a person to succeed in life, a tertiary education qualification plays a role similar to that of a key, which a person requires to unlock several closed doors. Assuming that learners are threatened by academic and financial exclusion, they may demonstrate entrepreneurial activities such that if they fail to attain their degrees, they may have something to show in the form of an entrepreneurial venture. Based on the above discussion, the study hypothesises that:

H3: Non-entrepreneurial culture predicts entrepreneurial barriers among learners

H4: Entrepreneurial culture predicts entrepreneurial intentions among learners

Public infrastructure, university environment, culture and entrepreneurial behaviour

The availability of public infrastructure somehow makes the entrepreneurial journey much easier to those willing to pursue entrepreneurship as a career. Public infrastructure is diverse and can be in the form of public and private incubators, mentor programmes, industry-specific training programmes, entrepreneurial seminars and workshops, and corporate engagement activities tailor made for start-ups. In South Africa, incubators seem to be the most preferred support mechanisms and readily accessible to individuals willing to demonstrate their entrepreneurial activities. The EY G20 Entrepreneurship Barometer (2013) found that there is a strong belief among South African entrepreneurs that business incubators are important and play a role second to none towards strengthening the future of entrepreneurship in the country. According to the Entrepreneur South Africa (2021), at least 58 incubators exist in South Africa and are controlled by private entities, municipalities, government agencies, colleges and universities. In this study, to measure public infrastructure, incubators owned by universities are excluded as the author assumes that such incubators contribute to the overall university environment. Research by Ogutu and Kihonge (2016) found that the number of incubators positively impacts gross domestic growth of a country. Incubators provide various means and make the creation and growth of young enterprises an almost hurdle free process. Based on the above discussion, this study hypothesises that:

H5: The availability of public infrastructure mediates the relationship between the university environment that is entrepreneurship oriented and entrepreneurial barriers among learners.

H6: The availability of public infrastructure does not mediate the relationship between the university environment that is entrepreneurship oriented and entrepreneurial intentions among learners.

3. METHODOLOGY

This study is quantitative and adopted a positivist paradigm. Data was collected only once, thereby making this study a cross sectional research. An explanatory research design was pursued. Through explanatory research, the researcher is able to identify the influence or impact of independent variables on the dependent variables. The study has two independent variables, that is the university environment and culture. Similarly, there are two dependent variables, namely entrepreneurial barriers and intentions. The study also sought to investigate the impact of a mediating variable (public infrastructure) on the relationship between the independent and the dependent variables.

Data collection and sampling

A self-administered questionnaire was designed for data collection purposes. Questionnaires were issued to 400 learners from three South African universities in the Eastern Cape Province. The questionnaire was designed to extensively capture biographic data of the respondents such as age, gender, academic level, the faculty, and the qualification which the learner was pursuing. Since the study's objectives focused on learners at South African universities, convenience sampling was

undertaken. Field workers stationed in campus premises approached learners, asked for consent to participate in the study and it was granted. Although 400 questionnaires were distributed, 123 learners willingly completed and returned questionnaires with usable information. Other key ethical issues were observed such as protecting respondents from harm (social, physical, economical and emotional). The respondents' right to privacy and the right to withdraw were explained in writing on the questionnaire cover page.

Data analysis

Data analyses was carried out in three phases. First, exploratory factor analysis (EFA) was undertaken with the goal of identifying the relationship between the study's variables including the latent factors that explain the covariation between the study's variables. More importantly, the EFA procedure also gave the researcher the means to determine the validity of the constructs incorporated in the research instrument. The second phase of data analysis was performed through simple linear regression and the final phase was performed through hierarchical regression.

4. RESULTS

Exploratory factor analysis (EFA) was undertaken to serve three purposes, that is to understand the structure of a set of variables. Second, given that the author adopted all of the scales from empirical research, EFA was undertaken to identify and confirm the relevant questionnaire items. Lastly, EFA was undertaken to reduce the data set to a more manageable size while retaining the most relevant information and eliminate challenges related to multicollinearity in the data set. A principal axis factor analysis was undertaken on the 58 items with oblique rotation (direct oblim). First, the sampling adequacy was investigated making use of Kaiser-Meyer-Olkin's (KMO) measure and $KMO = .724$ considered a middling value and above the threshold of .5 was obtained (Field, 2013; Hutchenson & Sofroniou, 1999). This outcome indicated to the researcher that exploratory factor analysis can be performed with the probability of yielding accurate results as the sample size was adequate. A further analysis was performed to determine eigenvalues for each factor in the data. The outcome revealed that 17 factors had eigenvalues over Kaiser's criterion of 1 and in total they explained 69.18% of the variance. The scree plot was ambiguous and showed inflexions that would justify retaining either 10 or 12 factors. Ten factors were retained and among the retained factors, 9 factors were usable in the data analysis as they had reasonable reliability scores as measured by the Cronbach alpha coefficient as indicated in Table 1. The accepted scales are represented by a ✓ symbol in Table 2 and the rejected scale because of poor reliability score is marked with a ✗.

Table 1: Factors, scale items, constructs and reliability scores

| Factor | Emerg ed scale items | Eigenvalues | Cronbach alpha | Construct/factor name | Scale used |
|--------|-------------------------------|-------------|-------------------|-------------------------------|------------|
| 1 | EM4, EA2, EA3, SA1 | 11.404 | .706 | Entrepreneurial activities | ✓ |
| 2 | UG5, UG1, EA6, EA5, UG3 | 2.609 | .702 | University governance | ✓ |

| Factor | Emerg ed scale items | Eigenvalues | Cronbach alpha | Construct/factor name | Scale used |
|--------|--|-------------|-------------------|---------------------------------|------------|
| 3 | PI2, PI4, PA3, PA1 | 2.433 | .734 | Public infrastructure | ✓ |
| 4 | CB3, TR1, SO5, TR5, TR4 | 2.138 | .725 | Taking responsibility | ✓ |
| 5 | SA4, SA6 | 1.912 | .698 | Support availability | ✓ |
| 6 | VET3, CB6, CB2, SO1, CB4 | 1.818 | .708 | Capability beliefs | ✓ |
| 7 | EIS1, EIS2, EIS3, EIS4, EIS5, EIS6 | 1.71 | .724 | Entrepreneurship intent | ✓ |
| 8 | EB1, EB2 | 1.601 | .696 | Extrinsic barriers | ✓ |
| 9 | IB3, CB1, IB3, IB2 | 1.56 | .713 | Intrinsic barriers | ✓ |
| 10 | VET1, VET2, SO2 | 1.47 | .480 | Value entrepreneurial traits | ✗ |

Hypotheses testing

Simple linear regression analysis was performed with respect to hypothesis 1 stating that the university environment that is not entrepreneurship oriented predicts entrepreneurship barriers among learners. Results revealed a low positive correlation between a university environment that is not entrepreneurship oriented and entrepreneurship barriers, $r = .350$. A university environment that is not entrepreneurship oriented explained 12.2% of the variance in entrepreneurship barriers, $R^2 = .122$. Based on these values, Cohen's f^2 was derived making use of the formula $R^2/(1-R^2)$. Cohen's f^2 measures the effect size of the IV on the DV and on this model, an effect size of .139 was derived, which according to Cohen's (1988) guidelines points to a medium effect. An F -ratio = 16.980 and significant at $p = .000$ reveals that the proposed model can be relied on in predicting entrepreneurial barriers among learners. The model estimates where $b_0 = 2.242$, and $b_1 = .102$ it reveals a significant positive effect at $p = .001$. This finding indicates that failure by universities to transform their environments to become responsive to entrepreneurship engagements will continue to be a significant barrier towards demonstration of entrepreneurial activities by learners, $b_1 = .102, p = .000$.

Simple linear regression analysis was performed and bootstrapped confidence intervals were requested as they do not rely on assumption of normality and homoscedasticity to assess H_2 stating that a university environment that is entrepreneurship oriented predicts entrepreneurship intentions among learners. University environment, that is entrepreneurship oriented was the independent variable and entrepreneurial intent was the dependent variable. The findings indicate that there is a low positive correlation between university environment that is entrepreneurship oriented and entrepreneurial intentions, $r = .414$. In addition, the results reveal that an entrepreneurship-oriented university environment explained 17.1% of the variance in entrepreneurial intentions among learners. University environment that is entrepreneurship oriented has a medium effect on entrepreneurial intentions, Cohen's $f^2 = .206$. An F -ratio = 25.205, that is significant at $p = .000$ reveals that the

model can be relied upon when predicting entrepreneurial intentions among learners. Parameter estimates of the model were found as $b_0 = 2.054$, and $b_1 = .164$ and $p = .000$. This result reveals that efforts towards improving the university environment to be more responsive to entrepreneurial activities will result in a positive and significant increase in entrepreneurship intentions among learners, $b_1 = .164$ and $p = .000$.

With respect to H_3 stating that non-entrepreneurial culture predicts entrepreneurship barriers, simple linear regression analysis was performed and bootstrapped confidence intervals were requested. In the regression analysis, a non-entrepreneurship culture was entered as the independent variable and entrepreneurial barriers was the dependent variable. Results reveal a low positive correlation between non-entrepreneurial culture and entrepreneurship barriers, $r = .447$. Further, a non-entrepreneurship culture explained 20% of the variance in entrepreneurship barriers among learners, $R^2 = .200$. Non-entrepreneurship culture has a medium effect on entrepreneurial barriers, Cohen's $f^2 = .25$. The results also reveal the model achieved fitness given an F -ratio = 30.508 that is significant at $p = .000$. In other words, this model can be relied upon when predicting entrepreneurial barriers among learners. The parameter estimates of the model were $b_0 = 2.001$ and $b_1 = .214$. The results further reveal that in the absence of meaningful efforts to change the entrepreneurial culture in the society that is currently characterised by high unemployment among university graduates, barriers to entrepreneurship at university level can only increase.

Hypothesis 4 stating that entrepreneurship culture predicts entrepreneurial intent was examined through simple linear regression analysis where bootstrapped confidence intervals were requested. Results reveal a low positive correlation between entrepreneurship culture and entrepreneurial intentions, $r = .450$. Further, the results indicate that entrepreneurial culture explains 20.3% of the variance in entrepreneurial intentions among learners, $R^2 = .203$. Entrepreneurial culture has a medium effect on entrepreneurial intentions as measured by Cohen's f^2 derived as .255. The results also reveal that the model can be used to predict entrepreneurial intentions with success given an F -ratio = 31.022, and significant given $p = .000$. The parameter estimates of the model were $b_0 = 2.038$ and $b_1 = .293$. The results further reveal that for every unit increase in entrepreneurial culture, there is a corresponding positive and significant increase in entrepreneurial intentions among learners equal to .293.

Hierarchical regression analysis was performed with respect to hypothesis 5 stating that the availability of public infrastructure mediates the relationship between the university environment that is not entrepreneurship oriented and entrepreneurial barriers among learners. A non-entrepreneurship-oriented university environment was the predictor variable, while public infrastructure was the mediating variable and entrepreneurship barriers was the outcome variable. The results summarised in Figure 1 reveal that a non-entrepreneurship-oriented university environment does not predict entrepreneurship barriers with public infrastructure in the model, $b = .027$, BCa CI [-.034, .095]. Given this finding, the study rejects the hypothesis stating that the availability of public infrastructure mediates the relationship between the non-entrepreneurship-oriented university environment and entrepreneurial barriers among learners.

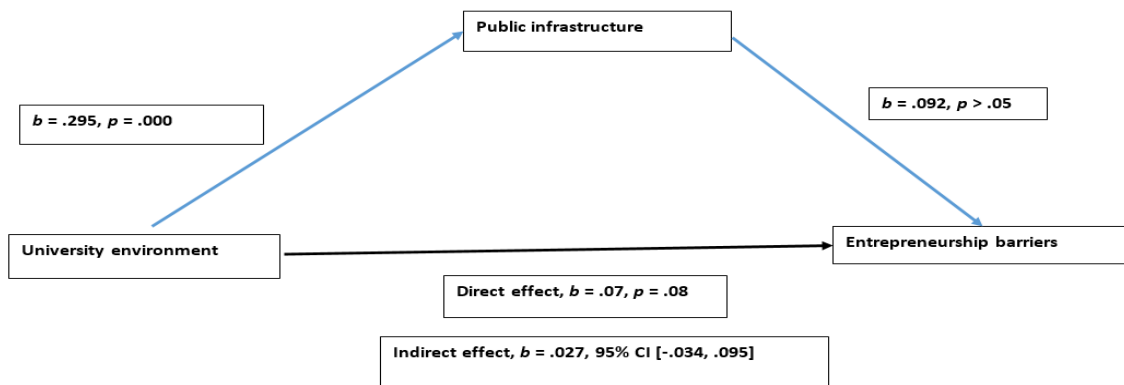


Figure 1: Model showing that public infrastructure does not mediate the relationship between university environment and entrepreneurship barriers among learners

The study further investigated whether the availability of public infrastructure mediates the relationship between an entrepreneurship-oriented university environment and entrepreneurial intentions among learners. Hierarchical regression analysis was performed and the results are summarised in Figure 2. The results in Figure 2 reveal that there is a non-significant indirect effect of an entrepreneurship-oriented university environment on entrepreneurship intentions through public infrastructure, $b = .007$, BCa CI [-.080, .089]. Given this finding, the study rejects the hypothesis stating that availing public infrastructure will result in an entrepreneurship-oriented university environment having non-significant impact on entrepreneurship intentions among learners.

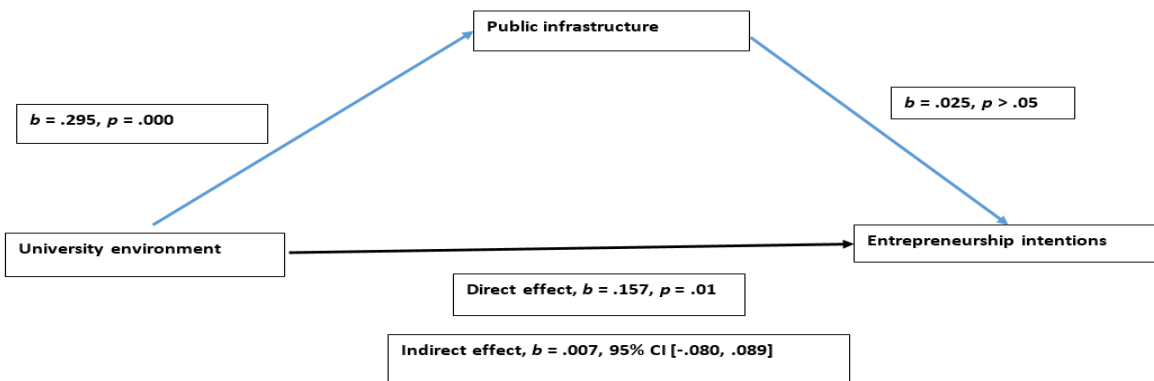


Figure 2: Model showing that public infrastructure does not mediate the relationship between university environment and entrepreneurship intentions among learners

5. DISCUSSION

The study looked at the impact of a university environment that is not entrepreneurship oriented on barriers to entrepreneurship and it was found that a university environment that is not entrepreneurship oriented explained 12.2% of the variance in entrepreneurship barriers among learners, $R^2 = .122$. More importantly, the measure of effect size revealed a medium effect, Cohen's $f^2 = .139$. Further, the study investigated the impact of an entrepreneurship university environment on

entrepreneurship intentions. The findings revealed that an entrepreneurship-oriented university environment explained 17.1% of the variance in entrepreneurship intentions among learners ($R^2 = .171$), with a medium effect size as measured by Cohen's $f^2 = .206$. These results stress the importance of having a university environment that is conducive to the development of an entrepreneurship mindset among learners. This research provides evidence that a university environment that is not entrepreneurship oriented leads to learners highly perceiving entrepreneurial barriers but an entrepreneurial-oriented university environment promotes entrepreneurship intentions among learners. Research also concurs with these findings, and points out that in an ecosystem that supports entrepreneurial activities, entrepreneurs will emerge given that the environment they find themselves in supports their actions (Audretsch & Belitski 2016; Carayannis et al., 2016).

The study also investigated the impact of a non-entrepreneurial culture on university barriers and the impact of an entrepreneurial culture on entrepreneurship intentions among learners. Literature pointed out that a person's values and beliefs play a significant role towards individual behaviour. This study provides evidence that an individual who exhibits non-entrepreneurship culture perceived entrepreneurial barriers given $R^2 = .20$, meaning that a non-entrepreneurship culture explained 20% of the variance in entrepreneurship barriers among learners. Further, the effect of a non-entrepreneurship culture on entrepreneurial barriers was found to be medium, Cohen's $f^2 = .25$. The study also provided evidence that individuals who exhibit an entrepreneurship culture are willing to set up their entrepreneurial ventures in the near future, $R^2 = .203$. This means that entrepreneurship culture explained 20.3% of the variance in entrepreneurship intentions of the learners. Entrepreneurship culture has a medium effect on entrepreneurship intentions given Cohen's $f^2 = .255$. Adekaye and Ibrahim (2016) found similar results, pointing out that culture has a positive significant impact on entrepreneurship intentions among learners. The results of this study to a larger degree concur with theory. The aggregate psychological approach indicates that in a given society, the demonstration of entrepreneurship is determined by the number of individuals already exhibiting this behaviour. Thus, the higher the number of entrepreneurs, the higher is the probability of a large cohort to follow a similar career path. The study's findings also concur with the dissatisfaction theory which points out that individuals who are not satisfied with their lives are more likely to perceive entrepreneurship as a viable career opportunity with the hope for a better future. The moral approval approach points out that individuals pursue entrepreneurship with the hope that when they succeed in this career path they will be rewarded with status. The study's results to a larger extent support this notion. Individuals who exhibit entrepreneurial intent are driven by many factors, including rewards they are likely to enjoy when the venture succeeds and status is one of such rewards.

The study provided evidence to reveal that a non-entrepreneurship university environment insignificantly predicts entrepreneurial barriers when public infrastructure is factored in the model. This finding indicates that adequate access to public infrastructure has an insignificant impact in an attempt to change individual perceptions towards entrepreneurial barriers if they are in a university environment that is not supportive of entrepreneurial behaviour. Thus, if we are to lower individual perceptions on entrepreneurial barriers, intervention mechanisms must target the university environment and make it more entrepreneurship friendly.

The study also revealed that public infrastructure does not mediate the relationship between an entrepreneurship-oriented university environment and entrepreneurship intentions. In other words, increased access to public infrastructure predicts entrepreneurial intentions and adequate access to public infrastructure does not diminish the impact of an entrepreneurship-oriented university on the entrepreneurship intentions of learners. Given this finding, it is therefore correct to say, if entrepreneurial intentions of learners are to be enhanced, access to public infrastructure must be improved and the university environment must be pro-entrepreneurial.

Theoretical and managerial implications

The major finding brought to light by this study is the gap that still exists as far as widespread entrepreneurial education is concerned across South African universities. In South Africa, if the goal of widespread entrepreneurship education is to be achieved, there is a need to confront the resources gap between institutions of higher learning. As highlighted earlier, South African universities fall into two categories, that is the well-resourced and the poorly resourced universities as a result of the apartheid legacy. Although the government is battling to resolve this imbalance, its efforts have yielded little success (Govinder et al., 2013). The answer to this present challenge lies in collaboration and cooperation between the well-resourced and poorly resourced universities. According to Moore (1993), in a competitive world, organisations can increase their chances of success by co-evolving, developing skills and being innovative. The well-resourced South African institutions and their global partners are adopting an approach where they are no longer educating learners to understand entrepreneurship or about entrepreneurship but to become entrepreneurs. In the process, their entrepreneurial ecosystem is continuously improving while the poorly resourced universities continue to lag behind as they offer entrepreneurship education that is predominantly theoretical, with little benefits to the learner after graduation. By co-evolving, developing skills and through innovation, poorly resourced universities can overcome two major obstacles, that is the unavailability of entrepreneurship educators and an entrepreneurship friendly infrastructure. These are the key ingredients needed to transform the university environment to become more entrepreneurial oriented and positive in terms of an entrepreneurial culture. In addition, when the mentioned approach is taken on board, there is a possibility of reaching strategic long lasting partnerships with private entities and government agencies that possess the needed infrastructure to nurture and develop entrepreneurship skills in learners.

Future research

Future research can focus on investigating the moderating role of public infrastructure on the relationship between an entrepreneurial-oriented university environment and entrepreneurship intentions as well as on the relationship between entrepreneurship culture and entrepreneurship intentions. That will answer questions such as what levels of public infrastructure will render the relationship between an entrepreneurial-oriented university environment and entrepreneurship intentions, and entrepreneurship culture and entrepreneurship intentions significant.

Limitations of the study

The study's main limitation is that data was not collected from all South African universities. In addition, among the universities surveyed, the response rate was low.

6. CONCLUSION

This study investigated four objectives, namely whether a non-entrepreneurship-oriented university environment predicts entrepreneurship barriers. The simple linear regression analysis results with respect to this objective revealed that this model was positive and significant. The second objective investigated whether an entrepreneurial-oriented university environment predicts entrepreneurship intentions among learners. The simple linear regression analysis results revealed that the model was positive and significant. The third objective sought to determine whether public infrastructure mediated the relationship between a non-entrepreneurship-oriented university environment and entrepreneurship barriers. Hierarchical regression analysis results revealed that public infrastructure does not mediate the relationship between a non-entrepreneurship-oriented university environment and entrepreneurship barriers. Last, the study investigated whether public infrastructure mediated the relationship between an entrepreneurship-oriented university environment and the results revealed public infrastructure does not mediate the relationship. Given the findings, the study therefore concludes that to enhance entrepreneurship behaviour among university learners, widespread entrepreneurship education must be adopted. However, to ensure that widespread entrepreneurship is a success in South African universities, the resource gap should be addressed through co-evolving, development of skills and through innovation. Further, to enhance entrepreneurial behaviour among learners, an intervention mechanism must target the university environment, entrepreneurial culture and access to public infrastructure.

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THE INFLUENCE OF SIMPLICITY, FAIRNESS AND TRANSPARENCY PERCEPTIONS ON PRESUMPTIVE TAX COMPLIANCE

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ABSTRACT

The presumptive tax system is designed to reach out to those not taxable under the standard tax system, such as small businesses. Presumptive tax systems are designed specifically to target small businesses and serve the purpose of facilitating voluntary compliance through their simplification and reduced administrative and compliance costs. Principles of a good tax system may influence the perceptions of small businesses towards payment of presumptive tax. This paper addresses the knowledge gap on whether and how the perceptions of principles of a good presumptive tax system may influence the tax compliance of small businesses. It evaluates how perceptions of simplicity, fairness and transparency may impact tax compliance under a presumptive tax system. This paper adopts a quantitative research approach and made use of a questionnaire as a data collection tool. A total of 107 small business owners and managers in Zimbabwe, taxable under the presumptive tax system, were surveyed. In addition, data analysis was performed using SPSS Amos with the structural equation modelling (SEM) run to test and confirm causal relationships between variables. Empirical results demonstrate that the perceptions of simplicity, fairness and transparency undermine taxpayers' intention to comply. Generally, the findings have revealed a significant relationship between the simplicity of the presumptive tax system and small firms' tax compliance behaviour. Furthermore, transparency of the presumptive tax system proved to increase tax compliance behaviour among small businesses. This paper suggests further research to validate the equity theory from a presumptive tax system perspective.

Keywords: presumptive tax system, principles of a good tax, tax compliance, small businesses

1. INTRODUCTION

Extant literature indicates that tax compliance remains a huge challenge in both developed and developing countries (Hindriks *et al.*, 1999; Rosid *et al.*, 2016; Dube, 2014; Fanea-Ivanovici *et al.*, 2019). One of the main issues faced by developing countries is tax non-compliance by small businesses (Serbinenko, 2016). The reasons for small businesses' non-compliance include small revenue yields, low cost to evade, low audit probability, cash-based transactions and poor tax morale (Ponorica & Al-Saedi, 2015). In addition, tax non-compliance often creates serious injustices between

those who can pay tax and find it difficult to evade taxes (Tanzi & De Jantscher, 1987). It is well known that the income of formal businesses is much more effectively taxed than the incomes of the self-employed and many small businesses (Tanzi & De Jantscher, 1987). In this paper, the data revealed that presumptive tax compliance can be influenced by a range of factors that are crucially correlated with the features of the presumptive tax system itself.

One possible way of reducing the problem of non-compliance by small businesses is the use of a simplified presumptive tax system (Serbinenko, 2016, Ponorica & Al-Saedi, 2015). Within the context of small business taxation, a simplified presumptive tax system often refers to a special tax system designed for a certain group of small taxpayers (Serbinenko, 2016). The simplification of a tax system can be achieved by relaxing reporting requirements (Ponorica & Al-Saedi, 2015). Regarding the fairness principle, Pashev (2006) indicates that the presumptive tax is vulnerable to calls for greater equality. The presumptive tax system is designed to reach out to those not reachable through formal forms of taxation, to ensure an equitable tax system (Haji & Haji, 2015; Iordachi & Tirlea, 2016).

In the case of the transparency principle, the construction and implementation of presumptive tax systems should be based on familiarisation with small business entities and their accounting environment (Iordachi & Tirlea, 2016). Bongwa (2009) argues that presumptive tax only works if the indicators on which the inference is based are more difficult to conceal than the accounting indicators. Supporting this view, Rajaraman (1995) suggests that the acceptability of presumptive taxation will be a function of the nature and transparency of the survey or other evidence on which they are based, the choice of indicators on an occupation-specific basis and the parameters by which stratification is performed in each occupation. Bongwa (2009) claims that presumptive taxation removes the financial transparency burden that has historically been necessary for compliance, as indirect indicators such as the type of business activity and the number of employees are utilised to estimate the tax liability. Current solutions to tax compliance under a presumptive tax system are inadequate as well as an understanding of small businesses' perceptions towards simplicity, fairness and transparency in order to encourage voluntary compliance.

To circumvent the problem of non-compliance by small businesses, most developing countries have introduced presumptive tax systems to improve tax compliance among small businesses (Pashev, 2006; Ahmed & Stern, 1991). Developing countries that introduced presumptive tax systems include Zambia (the turnover-based tax system), Pakistan (the turnover-based tax system), South Africa (the turnover-based tax system), Zimbabwe (the lump-sum tax system), Ghana (the lump-sum tax system), Chile (third-party reporting system), and Israel (tachshiv) (Bucci, 2019; Dube & Casale, 2016). Notably, by simplifying tax procedures for small businesses, facilitating online filing, decreasing the need for repeated input by taxpayers, technology can reduce the administrative burden of small businesses (ACCA, 2015; Schutte & Van der Zwan, 2019). Presumptive tax entails the use of indirect methods to determine a tax liability that is different from the conventional regulations (Thuronyi, 2015). This indicates that there is a legal presumption that the taxpayer's income is equal to or greater than the amount calculated using the indirect approach (Thuronyi, 2015). Traditionally, presumptive tax systems are used by tax regimes in which administrative or enforcement expenses are often high

and the main idea behind presumptive tax schemes is to reduce the time and costs of compliance and tax administration (Logue & Vettori, 2010; Leopruck, 2009).

In the literature, many definitions of small businesses can be found. The term small business is generally understood to mean a micro, small and medium enterprise (MSMEs). In Zimbabwe, the Small and Medium Enterprises Act (6th of 2011) defines small businesses by classifying them as micro-, small and medium enterprises according to the number of employees, total annual turnover and gross value of assets, excluding immovable property. The Small and Medium Enterprises (SMEs) Act classifies a business as micro if it has fewer than five employees, an annual turnover of up to US\$30 000 or has a gross value of assets of up to US\$10 000. It further classifies a business as small if it has six to 20 employees, an annual turnover of US\$30 001 to US\$500 000 or assets with a gross value of US\$10 001 to US\$250 000. In addition, the SMEs Act classifies a business as medium if it has 31 to 75 employees, an annual turnover of US\$500 001 to US\$1 000 000 or assets with a gross value of US\$250 001 to US\$500 000. The Zimbabwe Revenue Authority (ZIMRA) (2020) defines a small business as an enterprise with six to 40 employees, annual turnover of US\$50 000 to US\$500 000 or assets valued between US\$50 000 and US\$1 million, while a medium-sized entity is treated as a business with 41 to 75 employees, annual turnover and assets between US\$1 million and US\$2 million. For this paper, the definition adopted for a small business is considered to mean a micro, small or medium enterprise registered for presumptive tax in Zimbabwe. It would be noteworthy to know what other bases can be used to define and identify small businesses to enhance the representativeness of the sampling units.

The main goal of this paper is to investigate the influence of the simplicity perception, fairness perception as well transparency perception on the compliance of small businesses under a presumptive tax system in Zimbabwe. This paper focuses on presumptive tax compliance by small business owners and managers in Zimbabwe. Previous studies investigated the principles of a good tax system, but little attempt has been made to consider the perceptions of small businesses on the aforementioned principles. Small businesses are selected because it is at the individual level that perceptions of simplicity, fairness, transparency and tax-paying intentions can be dealt with under the presumptive tax system (Memon, 2013; Saint-Amans, 2014).

This research paper is motivated by two specific issues. Firstly, the fact that principles of a good tax system have attracted different scholars to examine the phenomenon under different tax types. Despite efforts made, very few studies incorporated perceptions of simplicity, fairness and transparency in relation to intentional tax compliance by small businesses. Secondly, as outlined in previous studies, various types of principles of a good tax system, as well as factors of tax compliance, are known. Limited information is, however, available about the relationship between perceptions of simplicity, fairness and transparency, and presumptive tax compliance from the perspective of a developing country such as Zimbabwe. Furthermore, previous studies have tended to examine the simplicity, fairness and transparency of small business taxation using a qualitative approach (Dube & Casale, 2017, Haque, 2013, Memon 2013, Logue & Vettori, 2010). However, this paper presented a quantitative approach. Therefore, an investigation into the perceptions of small businesses on the three features considered in this paper could enhance the prediction quality and practical contribution

to compliance behaviour under a presumptive tax system. The remainder of the paper is structured as follows: section 2 presents the conceptual model, followed by the methodology in section 3. Section 4 discusses the findings and the conclusion is presented in section 5.

2. CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

The conceptual model conceptualises and dimensionalises simplicity, fairness and transparency perceptions of small business owners and managers, with a view of establishing their impact on presumptive tax compliance. A brief discussion of the connections between the mentioned constructs is presented in the following sub-sections.

2.1 Simplicity and tax compliance

Presumptive tax systems are developed on the premise of reducing the complexity of the standard tax system for small business operators (Serbinenko, 2016:71). For small businesses, it should be as clear and uncomplicated as possible to understand and comply with tax rules (ACCA, 2015). This makes it possible for them to plan for tax consequences, such as knowing when, where and how to account for tax (the Association of International Certified Professional Accountants (AICPA), (2017). If taxpayers and their advisors are confronted with an overly complicated tax system and are unsure of what is expected of them, there is a risk of mistakes and wilful rule-breaking (ACCA, 2015). In simplifying tax procedures for small businesses, by facilitating online filing, decreasing the need for repeated taxpayer input, and perhaps removing the human element from data input entirely, technology can help an entity reduce its administrative burden (ACCA, 2015). The tax system's simplicity is critical for promoting small business compliance and, as a result, managing the informal sector (Memon, 2013). In addition, the AICPA (2017) warns that complex regulations can lead to errors and a lack of respect for the system. In general, simplicity is critical for both improving the compliance process and allowing taxpayers to better comprehend the tax implications of activities they engage in or plan to engage in (AICPA, 2017). The simplicity of a tax system appears to be strongly related to tax compliance (ACCA, 2015). The following hypothesis was developed based on the preceding arguments:

H₁: Simplicity perceptions positively and significantly influence attitudes towards presumptive tax compliance.

2.2 Fairness and tax compliance

According to Ahmed and Braithwaite (2005), the perceived fairness of government expectations and tax spending are both influential elements in tax compliance literature. Fairness is conceptualised as the degree to which people believe they are contributing their fair share in comparison to others (Wenzel, 2004 cited by Ahmed & Braithwaite, 2005). Therefore, the degree to which taxpayers believe the tax authority treats them with respect, impartiality and responsiveness is referred to as fairness (Memon, 2013). Furthermore, Memon (2013) concluded that if operators in different segments are taxed differently, a small business owner would be deterred from paying taxes. As a result, the more complicated a presumptive tax system is, the smaller business taxpayers will notice

the system's inequity (Ayuba & Saad, 2016). From this discussion, the following hypothesis was formulated:

H₂: Fairness perceptions positively and significantly influence attitudes towards presumptive tax compliance.

2.3 Transparency and tax compliance

Transparency has gained significant attention, primarily seen as a response to a lack of legitimacy and a way to deal with a democratic deficiency (Karageorgou *et al.*, 2016). Barreix, Roca and Velayos (2016) claim that tax transparency exists if it is evident that the automatic exchange of information between tax authorities, taxpayers and third parties is possible, if there are adequate standards of data transmission. Furthermore, transparency allows individuals and organisations to know the full cost of transactions (AICPA, 2017). Saint-Amans (2014) concluded that the more transparency there is from governments about how they are spending revenue, the more individuals, electors and communities can trust those in authority and comply with tax rules. Therefore, drawing from past empirical findings, the following hypothesis is presented:

H₃: Transparency perceptions positively and significantly influence attitudes towards presumptive tax compliance.

3. METHODOLOGY

A positivist research philosophy was adopted in this study that made use of a deductive approach. We did a cross-sectional survey of a sample of small business operators registered for the presumptive tax system in Zimbabwe. A cross-sectional survey examines a certain occurrence at a specific period and may attempt to explain how elements in distinct items are related (Saunders *et al.*, 2016). The rationale for use of a cross-sectional survey was motivated by the fact that it supports the analysis of data collected from small business owners and managers at a specific point in time over a short period.

3.1 Study participants

The study was conducted in the ten provinces of Zimbabwe, targeting small businesses registered for presumptive tax. Small businesses operating in the transport sector, hairdressing salons, informal traders, small-scale miners, accommodation, cross-border traders, restaurant or bottle stores and the agriculture sector constitute the population of the study. A screening question in the online survey was used to select small businesses registered for presumptive tax. The study used a sample size of 107 small business owners and managers. To select the respondents, a simple random sampling method was employed in each sampling frame. A survey questionnaire using Google Forms was used to collect data during the two months of April and May 2021. From the questionnaire administered, we recorded the profile and demographic features of the respondents in Table 1.

Table 1 shows that most of the small businesses that responded were in the informal sector (27.1%), followed by the agricultural sector (19.6%). A significant proportion are operating in the transport sector (14%), restaurants and bottle stores (11.3%) and hairdressing and saloons operators (8.4%).

Approximately 64.5% of small businesses have been operating for less than five years, while 29.9% have been in business for five to ten years. Regarding the number of employees, the majority of the small businesses employed fewer than five employees (77.6%). This is followed by 16 firms (15%) with between five and 20 employees and only 4.7% indicated that they have between 21 and 40 employees. Furthermore, 74.8% have an annual turnover of less than US\$50 000 while only 3.7% indicated that they recorded an annual turnover of between US\$100 001 and US\$150 000. Regarding their business location, 79.4% are operating in towns or city centres, with 15.9% of small businesses trading in the rural shopping centres. Finally, a bachelor's degree (55.1%) dominates the highest level of qualification, while the lowest level of education was recorded under primary education (2.8%).

Table 1: Profile of small business operators

| Variable | Frequency | % | Valid % | Cumulative % |
|------------------------------------|------------|------------|------------|--------------|
| Business sector | | | | |
| Transport | 15 | 14 | 14 | 14 |
| Hairdressing salon operator | 9 | 8.4 | 8.4 | 22.4 |
| Informal trader | 29 | 27.1 | 27.1 | 49.1 |
| Small scale miner | 6 | 5.6 | 5.6 | 55.1 |
| Accommodation | 6 | 5.6 | 5.6 | 60.7 |
| Cross-border trader | 5 | 4.7 | 4.7 | 65.4 |
| Restaurant/bottle store operator | 12 | 11.3 | 11.3 | 76.7 |
| Agriculture | 21 | 19.6 | 19.6 | 96.3 |
| Consultancy | 4 | 3.7 | 3.7 | 100 |
| Total | 107 | 100 | 100 | - |
| Years of business operation | | | | |
| Fewer than 5 years | 69 | 64.5 | 64.5 | 64.5 |
| 5 to 10 years | 32 | 29.9 | 29.9 | 94.4 |
| Above 10 years | 6 | 5.6 | 5.6 | 100 |
| Total | 107 | 100 | 100 | - |
| Number of employees | | | | |
| Fewer than 5 | 83 | 77.6 | 77.6 | 77.6 |
| 5 to 20 | 16 | 15 | 15 | 92.6 |
| 21 to 40 | 5 | 4.7 | 4.7 | 97.3 |
| 41 to 60 | 2 | 1.9 | 1.9 | 98.2 |
| Above 60 | 1 | 0.9 | 0.9 | 100 |
| Total | 107 | 100 | 100 | - |

| Variable | Frequency | % | Valid % | Cumulative % |
|---------------------------------|------------|------------|------------|--------------|
| Annual turnover (in USD) | | | | |
| Less than 50 000 | 80 | 74.8 | 74.8 | 74.8 |
| 50 000 to 100 000 | 19 | 17.8 | 17.8 | 92.6 |
| 100 001 to 150 000 | 4 | 3.7 | 3.7 | 96.3 |
| 150 001 to 200 000 | 0 | 0 | 0 | 96.3 |
| Above 200 000 | 4 | 3.7 | 3.7 | 100 |
| Total | 107 | 100 | 100 | - |
| Business location | | | | |
| City/town | 85 | 79.4 | 79.4 | 79.4 |
| Growth point | 5 | 4.7 | 4.7 | 84.1 |
| Rural shopping centre | 17 | 15.9 | 15.9 | 100 |
| Total | 107 | 100 | 100 | - |
| Level of education | | | | |
| Primary | 3 | 2.8 | 2.8 | 2.8 |
| Secondary | 7 | 6.5 | 6.5 | 9.3 |
| National certificate | 7 | 6.5 | 6.5 | 15.8 |
| National diploma | 7 | 6.5 | 6.5 | 22.3 |
| Higher national diploma | 8 | 7.5 | 7.5 | 29.8 |
| Bachelor's degree | 59 | 55.1 | 55.1 | 84.9 |
| Post-graduate degree | 16 | 15 | 15 | 100 |
| Total | 107 | 100 | 100 | - |

3.2 Measurement instrumentation

The questionnaire used in this study contained close-ended questions that allowed respondents to select an answer from a set of pre-determined choices. In order to determine the causal relationship between features of a good tax system and presumptive tax compliance, a five-point Likert scale was used in the design of the questions (Stockemer, 2019). The questionnaire comprised multiple-choice questions under the demographic section, while the Likert scale was employed for items on simplicity, fairness and transparency. To collect data, the questionnaires were distributed by electronic means to small business owners and managers. This was necessitated by incessant lockdowns caused by the deadly Coronavirus making it difficult to conduct the survey in person.

3.3 Data analysis method

Since the study was quantitative in nature, the data was analysed using structural equation modelling (SEM). To begin, a confirmatory factor analysis (CFA) was used to assess the measurement instrument's reliability and validity. CFA is a powerful statistical approach to investigate the nature of latent components and their relationships (Jackson, Gillaspay & Purc-Stephenson, 2009). The measurement model (CFA) is the first component of SEM, and it is used to test the reliability of the observed variables (Schreiber, Nora, Stage, Barlow & King, 2006). The assessment of model fit was done using the comparative fit index (CFI), the root mean square error of approximation (RMSEA), chi-square degrees of freedom (ChiSq/df), the Tucker-Lewis index (TLI), and the goodness-of-fit test

(GFI). After establishing the measurement model's reliability and validity, SEM was employed to test the hypotheses. Researchers use SEM to evaluate theoretical predictions about how constructs are related in theory and the directionality of significant relationships (Schreiber *et al.*, 2006). IBM SPSS and SPSS Amos were used to conduct confirmatory factor analysis and SEM. The following section looks at the results of this research.

4. RESULTS

4.1 Reliability and validity of the measurement instrument using confirmatory factor analysis (CFA)

The internal consistency of items for each latent variable was confirmed using CFA in this study. The average variance extracted value (AVE) (convergent validity) and the square root of the AVE were used to verify the validity of latent variables (discriminant validity). Cronbach's alpha is a method to determine the internal consistency or dependability of summated rating scales (Jerry *et al.*, 2017). Multiple items measuring the same concept (that is, the items intercorrelate) is referred to as measurement reliability (Jerry *et al.*, 2017). Internal consistency statistics are used to determine how consistently people respond to things on a scale. Cronbach's alpha (α) estimates the proportion of variance in a set of survey responses that is systematic or consistent in this scenario (Jerry *et al.*, 2017). Cronbach's alpha can range from 0.0 to 1.0 (Adamson & Prion, 2013) and an alpha of 0.7 or higher is deemed appropriate (Vale *et al.*, 1997). If each of the items on the questionnaire measures the same construct, the ratings on each should be correlated with one another (Adamson & Prion, 2013). A perfect correlation would be (α)=1.0, whereas there would be no connection at all if the value (α) = 0.0. Furthermore, a questionnaire has a satisfactory internal consistency if item scores for each latent variable are $\alpha > 0.7$.

In this paper, the fairness perception construct had five items that yielded an alpha score of 0.55. This suggested a lower internal consistency between the five factors used for estimating fairness perceptions. The Cronbach's alpha for the simplicity impression (7 items) was 0.791, indicating that the components were internally consistent. The transparency perceptions construct recorded an alpha of 0.830 for the five items, while the presumptive tax compliance construct recorded a correlation of 0.826 for the four items used. As a result, the fairness perception construct only yielded low factor loadings as shown in Table 2.

The convergent validity of each research construct was measured using the AVE. The amount to which two measures capture a common construct is referred to as convergent validity (Carlson & Herdman, 2010). Alternative measurements with less-than-perfect convergent validity present ambiguities that make it difficult to establish meaningful interpretations of findings both within and between research (Carlson & Herdman, 2010). Commonly, the minimum threshold for AVE should be 0.5 (Munyanyi, 2018; Ayuba, Saad & Ariffin, 2018). AVE compares the amount of variance captured by a construct to the amount due to measurement error, with values above 0.7 regarded as excellent, and levels below 0.5 are considered acceptable (Alarcon & Sancez, 2015). The AVE values for fairness loadings recorded a relationship of 0.23 and the simplicity loadings scored a 0.37

relationship. Finally, the transparency perception, as well as the presumptive tax compliance construct, have adequate convergent validity, as shown in Table 2.

Discriminant validity states that things should correlate more strongly among themselves than with items from other constructs that are not meant to correlate (Zait & Berteau, 2011). The square root of AVE can be used to test discriminant validity. According to this rule, the square root of each construct's AVE should be substantially larger than the correlation of that construct with any of the others (Ayuba, Saad & Arrifin, 2018; Zait & Berteau, 2011). Table 2 reveals that, except for the fairness perceptions construct, the square root of the AVE was larger than the correlations of the latent constructs. Therefore, to achieve consistent and valid results, all five items for the fairness perceptions were removed as they lack internal consistency and had low validity within the items and with other research constructs' items. As a result, three constructs that met the validity criterion were further analysed using the measurement model fit, followed by the hypotheses testing.

Tables 2 and 3 show that the factor loadings exceeded the cross-loadings (correlations), except for one variable (FP), suggesting an adequate discriminant validity to provide grounds for further analysis of the three constructs (SP, TP and PTC). Finally, the measurement model fit includes three variables that proved to be reliable and valid (SP, TP and PTC).

Table 2: Reliability and validity assessment

| Research construct | Construct item | Factor loading | Cronbach's alpha | Average variance extracted | Square root of AVE |
|---|----------------|----------------|------------------|----------------------------|--------------------|
| Fairness perceptions (FP) | FP1 | 0.56 | 0.55 | 0.23 | 0.48 |
| | FP2 | 0.66 | - | - | - |
| | FP3 | 0.24 | - | - | - |
| | FP4 | 0.34 | - | - | - |
| | FP5 | 0.48 | - | - | - |
| Simplicity perceptions (SP) | SP1 | 0.56 | 0.79 | 0.37 | 0.61 |
| | SP2 | 0.52 | - | - | - |
| | SP3 | 0.75 | - | - | - |
| | SP4 | 0.79 | - | - | - |
| | SP5 | 0.70 | - | - | - |
| | SP6 | 0.33 | - | - | - |
| | SP7 | 0.51 | - | - | - |
| Transparency perceptions (TP) | TP1 | 0.60 | 0.832 | 0.5 | 0.71 |
| | TP2 | 0.74 | - | - | - |
| | TP3 | 0.76 | - | - | - |
| | TP4 | 0.72 | - | - | - |
| | TP5 | 0.72 | - | - | - |
| Presumptive tax compliance (PTC) | PTC1 | 0.66 | 0.826 | 0.57 | 0.75 |
| | PTC2 | 0.84 | - | - | - |

| Research construct | Construct item | Factor loading | Cronbach's alpha | Average variance extracted | Square root of AVE |
|--------------------|----------------|----------------|------------------|----------------------------|--------------------|
| | PTC3 | 0.91 | - | - | - |
| | PTC4 | 0.55 | - | - | - |

Table 3: Means and discriminant validity assessment (n = 107)

| Construct | Mean | FP | SP | TP | PTC |
|----------------------------|------|-------------|-------------|-------------|-------------|
| Fairness perceptions | 2.74 | 0.48 | - | - | - |
| Simplicity perceptions | 2.69 | 0.5 | 0.61 | - | - |
| Transparency perceptions | 3.22 | 0.52 | 0.6 | 0.71 | - |
| Presumptive tax compliance | 3.13 | 0.49 | 0.56 | 0.58 | 0.75 |

Note: The square root of the average variance extracted is represented by bold entries

4.2 Assessment of the measurement model's good fit

Confirmatory factor analysis was employed in this paper to confirm the measurement model's fitness. For the purpose of this paper, the CFI, RMSEA, ChiSq/df, TLI, and the GFI were used to confirm the results. The GFI is a goodness-of-fit index, increasing with improving fit and it is a proportion that conceptually has a range of 0 to 1, but can potentially be negative (West, Taylor & Wu, 2012), where a value close to 1 indicates a good match. RMSEA values of around 0.05 or less indicate a close model fit, while values of around 0.08 or less indicate a fair approximation error (Browne & Cudeck, 1993). A cut-off of 0.9 is required for adequate model fitness using CFI (Xia & Yang, 2018; Hu & Bentler, 1999), but the value is acceptable if it is above 0.8 (Doll, Xia & Torkzadeh, 1994). As a result, the descriptive fit indices' means in this research (P-value<.001; RMSEA=.058; GFI=.825; CFI=.879; TLI=.855; ChiSq/df=1.940) do not imply an exceptionally poor model fit. Based on the indices computed, the results indicate a good fit of the hypothesised measurement model.

4.3 Hypotheses testing using structural equation modelling

In this paper, in evaluating the structural model, the significance of the constructs, as well as the relevance of the coefficient, were taken into account. This was possible because the measurement model fits reasonably well, and the study was based on theoretical foundations. In order to investigate the relationships between variables, the study components were fused into the structural model in the form of a path diagram. Furthermore, the t-values were utilised to support or refute the study's hypotheses. SPSS Amos26.0 software was used to validate causal relationships between constructs through the structural equation model.

A summary of the structural path co-efficient is shown in Table 4 for H1 and H3. H1 and H3 are all supported (p<0.001), with H2 not tested since the construct was removed in step 1 of the confirmatory factor analysis to improve the measurement model fitness because it lacks internal consistency and recorded lower validity scores. The results in Table 4 revealed a significant positive relationship between simplicity perceptions and presumptive tax compliance ($\beta=0.585$, $t = 3.831$, $p<0.001$) as predicted in H1.

Table 4: The structural equation model’s results

| Hypotheses | Relationship | Standard error | Standard path co-efficient | T-test | P-value | Decision |
|------------|--------------|----------------|----------------------------|--------|---------|-----------|
| H1 | SP -> PTC | 0.03 | 0.585 | 3.821 | *** | Supported |
| H2 | FP -> PTC | - | - | - | - | Removed |
| H3 | TP -> PTC | 0.06 | 0.562 | 3.337 | *** | Supported |

Note: Significance level ***, p-value<0.001

Furthermore, H3 proposed a substantial positive association between perceived transparency and presumptive tax compliance. Transparency perceptions exhibited a substantial positive link with presumptive tax compliance ($\beta = 0.562$, $t = 3.337$, $p < 0.001$), according to Table 4. Therefore, using the structural equation model, H1 and H3 were empirically and significantly supported.

5. DISCUSSION

Simplicity views were found to be favourably connected to presumptive tax compliance in the current investigation (H1). The finding is consistent with Megnaka and Devi (2014) who found that simplicity of a presumptive tax system contributes to an increase in compliance by small businesses. The same sentiments were echoed by Getachew (2019), who reported that the simplified presumptive tax system facilitates a smooth transition from micro to small businesses. Furthermore, a simplified presumptive tax system reduces time and trouble expended to fill in the relevant forms and regular correspondence with the revenue officers (Leoprick, 2009). In addition, Memon (2013) discovered that streamlining income tax procedures and lowering compliance costs under the presumptive tax system encourage small enterprises to comply voluntarily.

The third hypothesis of this study (H3) argues that presumptive tax compliance is strongly and positively connected with transparency perceptions of the presumptive tax system. The findings, as predicted, backed up the hypothesis. This is in line with the findings of Ayuba *et al.* (2018), who found that when taxpayers perceive better service, the likelihood of tax compliance increases. Therefore, the results suggest that small businesses believe that ease to understand tax procedures and proper service delivery by the government improve their decisions towards payment of presumptive tax.

6. CONCLUSION

This paper adds to the current literature on tax compliance under a presumptive tax system. Theoretically, gaps exist in literature especially concerning the perceptions of simplicity, fairness and transparency under a presumptive tax system. Past studies in this area have not addressed how perceptions of simplicity, fairness and transparency influence small businesses’ decisions to pay presumptive tax in a single study. Generally, the findings have revealed a significant relationship between the simplicity of the presumptive tax system and small firms’ tax compliance behaviour. Furthermore, transparency of the presumptive tax system proved to increase tax compliance behaviour among small businesses. Even though fairness perceptions indicated inconsistent and varied responses in the early stages of the measurement mode test, in terms of presumptive tax

compliance, the construct cannot be ignored in influencing the compliance behaviour of small business owners and managers. In summary, the findings reflected that when small businesses regard presumptive taxation procedures as simple and transparent, compliance increases. Contrary to our expectation, small businesses are uncertain about the fairness of the system, thereby rendering it of not much consideration in predicting the level of presumptive tax compliance.

The findings of the paper are relevant to tax authorities focusing on the tax policy of small businesses. Tax authorities should strive to address the issues of simplicity and transparency of the presumptive taxation procedures. These measures have the potential to increase perceived simplicity and transparency level, which eventually is expected to improve tax compliance under a presumptive tax system. The paper was limited to the views of owners and managers of small business entities only and it is acknowledged that respondents interpret items in the survey questionnaire differently. Presumptive tax compliance was measured using hypothetical scenarios in this paper, and different results could be yielded when using the actual judgement of respondents, which can vary from one situation to another. Therefore, future papers can include other predictors of tax compliance behaviour and alternative approaches can be considered in estimating the behaviour of small businesses towards presumptive tax compliance.

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THE VALUE OF INFORMATION TECHNOLOGY CAPABILITY ON ORGANISATIONAL PERFORMANCE IN A SOUTH AFRICAN FIRM

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ABSTRACT

Information Technology capability is considered one of the organisation's most valuable assets and when properly managed, it can assist the organisation to perform and achieve its business goals. This paper addresses the value of IT capability on organisational performance. The paper deploys the Information systems capability framework as a lens to unpack how an organisation can realise the value derived from information technology resources and investments. The problem identified is that although IT capability is deemed necessary for increased organisational performance, its value is often not well understood nor appreciated within organisational leadership. Following an interpretive research philosophy and the inductive approach, this paper shows and argues that IT capability improves organisation performance when the investments in IT infrastructure and resources are aligned with the business and the operational context of the organisation. Using a South African firm as a case study, this paper concludes that Information Technology capability improves organisational performance.

Keywords: IT capability, IT value, organisational performance, South African firm.

1. INTRODUCTION

Several studies have attempted to understand the role of IT on organisational performance and many researchers have focused on the concept of IT capability to transform IT resources into business value (Chae, Koh, & Prybutok, 2014; Jorfi & Nor, 2011; Oliveira, Maçada, & Oliveira, 2016). Recent studies on the business value of IT have highlighted technological capabilities and investment; however, the processes by which IT contributes to organisation performance remain unclear and require additional research (Fink, 2011). Researchers still have difficulties describing the strategic value of IT capabilities after over two decades of rigorous research.

This paper points out that a significant contribution is not made because of the gap between the richness of theoretical formulations and the reductionist approach used to evaluate them. While theoretical formulations explain the relationships between IT capability and competitive advantage,

the explanations rely on models that depict the integration of basic interactions. Although IT capability concepts exist for two decades, their impact is still unknown. Based on these literature findings, this paper fills this gap and addresses the value of IT capability on organisational performance in a South Africa mining firm. This paper is about IT capability and organizational performance.

Aral and Weill (2007) state that the functions of the sector in which an organisation is competing often dictate the type of IT needed how it is implemented and the magnitude of the value produced and maintained. This paper looks at a South African mining firm because IT capability literature talks of deriving value from IT, in general, and often insensitive to the environmental and operation contexts. Furthermore, the literature emphasises that IT investment of an organisation's resources and capability pays off if it aligns with the particular setting in which the organisation works and operates. To this point, this paper addresses the value of IT capability on organisational performance in a South African mining firm.

South African Context

A substantial literature review on IT capability has been highlighted in strategic literature but on specific organisational contexts such as the banking sector. IT capability growth has been unclearly defined, especially in South African mining firms. South Africa is categorised as a developing country. Therefore, it may be anticipated that what works in other countries, especially in developed countries, may not work as expected in South Africa (Modiba, Kekwaletswe, & Komati, 2020). In South Africa, the mines typically consist of shallow mining operations with lower capital costs. The development and deployment of technologies in the South African mining sector are driven by a variety of internal and external factors; for example, the growing actual cost of electricity, compliance with the environmental laws and that any technological solution needs to maintain the high level of the available furnace (Basson, Curr, & Gericke, 2007; Mogoale, Kekwaletswe, & Mongale, 2021).

2. REVIEW OF CONCEPTS

Information Technology

IT forms part of the business but is frequently not viewed as a tangible result. So, organisations have difficulty justifying IT expenditure. Often, organisations are unable to reap the advantage of IT investments due to a lack of related skills: mixed IT environments, continuous IT changes and faulty management methods. Using IT in most organisations involves investing heavily in related technology. Thus, organisations typically benefit from IT capability if their investments in the technology are handled correctly.

Information technology capability

Ross et al. (1996a) and Bharadwaj (2000) introduced the concept of IT capability. They characterised IT capability in relation to other sources and capabilities, as regulating effective use and deployment of IT resources. They identified IT capability as efficient usage, control and deployment of IT resources together with other resources and capacities. IT capabilities have a competitive benefit (Aral & Weill, 2007; Bharadwaj, 2000; Mithas, Ramasubbu, & Sambamurthy, 2011; Muhanna &

Stoel, 2010; Santhanam & Hartono, 2003; Wang & Alam, 2007).

According to the literature, organisations that recognise the importance of their IT capabilities have a competitive edge (Aral & Weill, 2007; Bhardwaj, 2000; Mithas et al., 2011; Muhanna & Stoel, 2010; Santhanam & Hartono, 2003). This study recognises the use of IT capability and the level at which mines can understand and realise its IT value. As a result, the research will utilise the mine as a case study since certain areas of IT capability are critical for the mine's effectiveness such as mine infrastructure, knowledge and skills. This study's findings are critical to making the mine's operations more efficient and effective. According to Lim et al. (2012), business leaders who use their expertise to establish a superior and long lasting IT capability make a far greater contribution to their firms than those who establish an outstanding but short-lived IT capability.

The rest of this paper is organised as follows: the next section reviews the literature to determine what research has already been done on IT capability. This is followed by a summary of the theoretical framework underpinning the study and the methodology used to explore the research problem, the research findings and their implications and the paper's conclusion. Scholars have been studying IT capability (Chae, Koh, & Park, 2018a, 2018b; Jorfi & Nor, 2011; Kim, Shin, Kim, & Lee, 2011) for decades. However, the concept "IT capability" is used in a variety of contexts. Some believe that it is the capability of IT to fulfil business requirements effectively and that it is the key to transforming a business into a successful entity (Kim, Shin, & Kwon, 2012). Bharadwaj (2000) states that IT capability when combined with other resources, is described as the ability to govern the efficient use and deployment of IT-based resources. Furthermore, the researchers determined that if businesses are successful in developing superior IT capabilities, they could experience superior financial performance.

Bharadwaj (2000) is referenced extensively in this study because of significant linkages between IT capability and organisational performance. However, some studies did not find any significance between the linkages. Chae et al (2018) expanded on the work of Chae, Koh and Prybutok (2014) by examining how industry influences the linkage between IT capability and organisational performance. Their study examined three industries: the automation, information and transformation industries. Their studies found that the influence of IT capability on organisation performance differs depending on the industry type. The researchers underlined the importance of industry and suggested that greater thought should be given to the context in which IT is adopted and deployed. This study identified a gap in the literature on IT capability that calls for more consideration of the setting in which IT is adopted and deployed. The systematic literature reviewed did not reveal prior research that can inform IT capabilities, especially within the context of the South African mines.

This paper sought to fill this gap by conceptualising a framework that can expand the knowledge of IT capability and subsequently provide the mines in the context of South Africa with a road map to derive value from IT. This paper contributes to IT Capability literature by proposing a comprehensive analysis of the mine's IT Capabilities and, equally, addressing the value of IT Capabilities' impact on the mine's performance. This study's conclusion is critical to making the mine operate more efficiently and effectively.

3. THEORETICAL FRAMEWORK

The Information Technology Capability framework is used as a theoretical lens to understand the value of IT capability on organisational performance in a South African firm.

The IT Capability framework

The framework uses IT to improve organisational structure and provide new IT-based solutions that are cost-effective (Karimi et al., 2007). The framework offers superior organisational roles for IT as well as further IT applications with technologically effective and long-term operations and maintenance. Scholars have looked at various approaches to IT Capabilities including process design, resource exchanges, coordination and transformation (Jorfi et al., 2011). Various scholars have looked at the numerous dimensions of the IT capability model (Sabherwal, & Kirs, 1994, 1999; Ross, Beath, & Goodhue, 1996); Feeny, & Willcocks, 1998a, 1998b; Bharadwaj et al. 1999; Byrd, & Turner, 2000; Bharadwaj, 2000). For this study, we adopted the IT capability model of Jorfi et al. (2011).

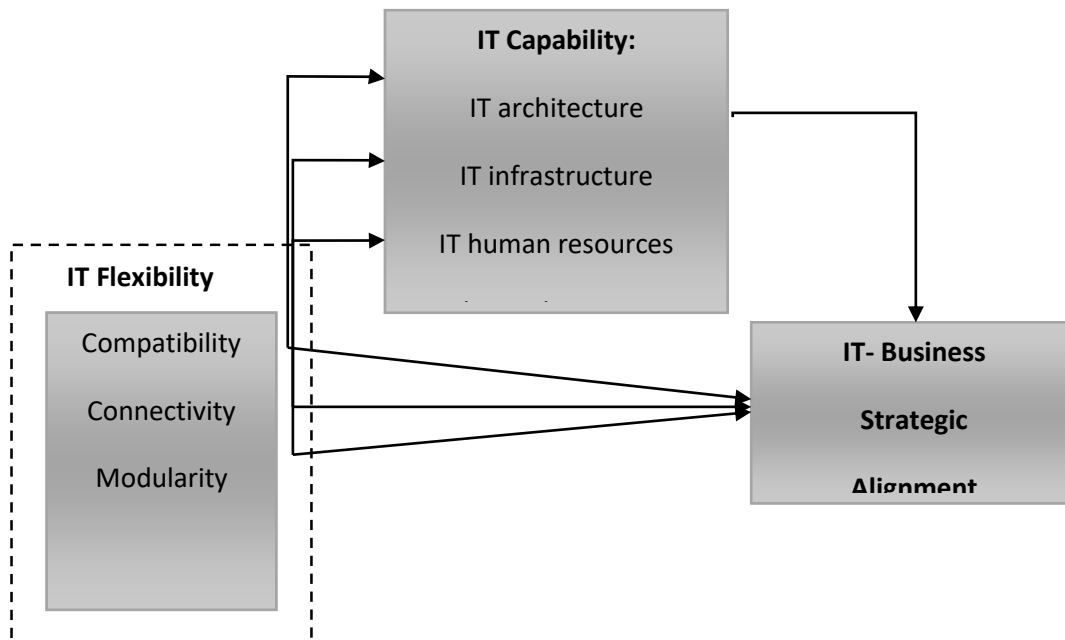


Figure 1. IT capability framework (Jorfi et al., 2011).

The IT capability framework applies to an organisation's ability to address IT requirements (Karimi, Somers, & Bhattacharjee, 2007). The framework employs IT to improve organisational performance and create new cost-effective IT-based solutions (Jorfi & Nor, 2011). The framework provides superior organisational performance for IT as well as additional IT applications that are technologically successful and long-term in operation and maintenance.

The IT capability framework comprises the following dimensions:

- IT architecture – high-level map of the entire organisation's information and technology needs;
- IT infrastructure – exchange of software and data through communication networks;
- IT human resource – problem-solving skills, professional knowledge;

- IT relationship resources – achieving collaboration and teamwork and negotiating excellence on all sides of the partnership, along with a significant mutual understanding of IT strengths and market needs.

4. METHODOLOGY

This paper addresses the value of IT capability's impact on organisational performance with a focus on South African (SA) mines. In this study, a case study approach was used. A case study approach is a research approach that is focused on an in-depth analysis of a particular person, organisation or event (Hollweck, 2016). This study employed a case study of a mine with multiple case units (10 case units). The organisation, Chrome Ore Mine, is the unit of analysis for this study. The research unit identifies "what" or "who" was analysed. A mine in South Africa was the subject of the investigation. Specifically, the organisation, not the person, was the unit of analysis. Employees from multiple case units make up the average South African mine population. An IT unit is one of these units and its objective is to provide technologies that allow the mine to function and operate effectively.

Purposeful sampling is the selection to "choose places, persons or activities that supplied information relevant to the study questions" (Palinkas et al., 2013). It is ideal to obtain in-depth data for the study when the investigation attempts to extract deep-rooted knowledge from the participants about a topic (Hollweck, 2016). Semi-structured interviews, observations and lived experiences of stakeholders are qualitative research methodologies used to collect in-depth and extensive empirical information about the mine. The case study participants were chosen based on their knowledge, experience and expertise with the topic area. An open-ended questionnaire was applied, semi-structured face-to-face interviews were carried out at the organisation's location and observations were used to collect data. The face-to-face, semi-structured interviews took 30 to 45 minutes, were audiotaped and then transcribed.

The open-ended questionnaire and the face-to-face interviews sought to address questions such as: how the organisation does things (business operations), the challenges thereof and how those could be remedied. The other questions include how they use information technologies daily in business units/operations, how the new systems get introduced and how they determine if a user is competent to use the systems. The study's research design was organised around thematic semi-structured questions that were guided by the study purpose and the underpinning conceptual elements of the research framework. Also, the approach was used to analyse, discuss and describe the researcher's data gathering in detailed data sets (Clark, 2001). To this end, this study sought to conceptualise a framework that supports the mines to derive value from IT and improve organisational performance

5. DISCUSSION OF FINDINGS AND THE FRAMEWORK

Informed by the empirical evidence, this section provides and discusses the elements of the conceptualised IT capability framework. The key elements of the framework are: IT infrastructure, IT human resources and IT relationship resources:

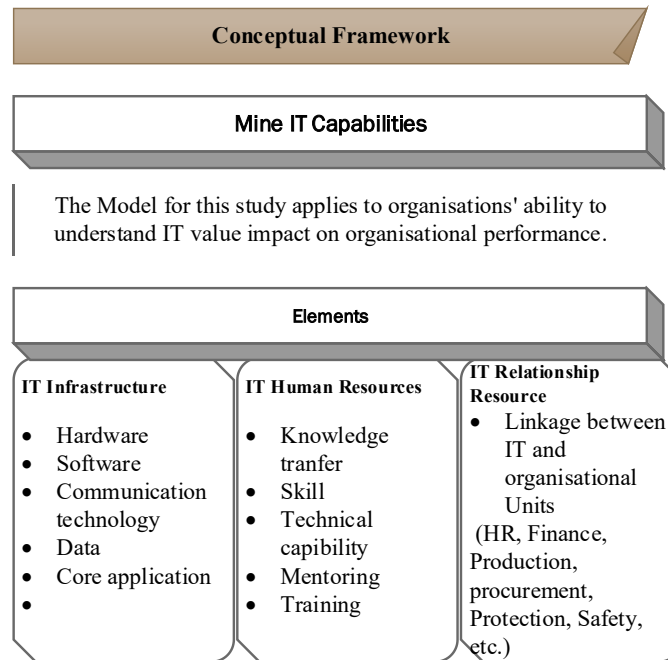


Figure 2. IT Capability Framework for the South African mining firm

IT infrastructure:

Byrd and Turner (2008) described IT infrastructure as the capability to support a diverse range of hardware, software, communications technology, data, core applications, skills and competencies, commitments and values within the present IT infrastructure’s technical and physical base. Empirical evidence shows that IT capability value as a phenomenon is poorly understood. To simplify the concept of this study, we had to explore it in terms of how IT infrastructure enabled the business. We looked at who does what – and how they do it – within their various business units, the value added by the infrastructure and the limitations. The evidence suggests that the organisation does not utilise IT capabilities to their full potential. This is true as business units have various systems and the systems operate in silos. Some do not feature integration with other applications while others can be integrated. System support exists. However, service to all sections of the mine is hampered by staff shortages. Some functions still run manually such as contract management. However, IT is utilised 100 percent throughout the organisation for the daily running of all business units.

Literature highlights the common knowledge that collaboration in an organisation generates information synergy. Information synergy relates to the pooling of resources in a business in which persons or business units work together and use IT across roles or subunits (Dewett & Jones, 2001). The findings and literature concur as they show that IT capabilities align organisations to collaborate and thus, to produce more information synergy. This means that the systems in various units need to collaborate – rather than run in silos – for the organisation to benefit from the value of IT. Greater collaboration produces more information synergy, which therefore, influences company performance. IT Capability is characterised as assisting organisational activities and work processes and as pooling other vital resources (Lee et al., 1999). The study stresses that IT Capability should be enhanced for the organisation to stay competitive and for business units to work together using IT across subunits.

IT human resources

In this study, IT human resources (HR) is classified as knowledge transfer, skills and technical capability. The ability to effect procedures efficiently that suit a given workplace is necessary for performing work that is crucial for an organisation. Mentoring, training and practice can provide the requisite skills. An IT employee who can solve business difficulties without fail – and handle IT possibilities – is a vital human asset for every organisation today. As the significance of IT develops in organisations, the skills of an IT team become imperative. Empirical evidence indicates the need for a proper training matrix for all employees. An individual development plan (IDP) should be in place, whereby an employee sits with his or her supervisor for the outlining of training and competency that aligns with the employee's role. Although participants showed some understanding of the need for an IDP, some findings point to the lack of a change-management system when a new application is introduced to the organisation. Training and assessment are needed to establish whether the user is competent.

Scholars like Lin and Hsu (2010) consider the firm's most important resources to be knowledge and expertise. Human resources can promote a sustained competitive advantage (Barney, 1991). Many experts stated that HR is the main contributor to excellent corporate performance (Chang & Huang, 2005; Song et al., 2008). Therefore, the study argues that from a change-management perspective, the mine needs to consider its staff when introducing a new system or upgrading existing versions. That is, there is a need to teach people and improve their competence not just as a matter of procedure but to make them aware that their knowledge and expertise contribute to outstanding organisational performance.

IT relationship resource

The inevitable linkage between IT and the organisational units is explained by the IT relationship resource. The information must be delivered and exchanged across various technological platforms in the organisation. Knowledge sharing in the organisation is done via memos, emails, procedures and policies in place as per results. Compatibility is regarded as the capability to distribute information through the company (Duncan, 1995). The IT infrastructure may also remain compatible. This is achievable since the company can share information on any kind of technology platform. The degree of communication throughout the whole organisation is significantly increased thereby, facilitating the provision of information at rapid speed for users throughout the organisation. Consequently, our findings suggest that relationships play a crucial role in IT Capability.

6. CONCLUSION

This paper addressed the value of IT capability on organisational performance in the context of a South African mining firm. The paper concludes that IT capability impacts organisational performance when human resources, infrastructure and stakeholder relationships are aligned. Organisational resources significantly affect the IT capability impact on organisational performance. IT capability is realised when there are appropriate investments in infrastructure, stakeholders and resources. The IT strategy ought to be aligned with the business strategy and the operational context of the organisation. In this paper, the conceptual framework given suggests that IT value is derived

when there is an integration of appropriate competencies, skills, leadership, experience, infrastructure, human resources and stakeholder relationships. That is how the value of IT capability derives and delivers business value from IT organisational performance.

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ANALYSING THE DETERMINANTS OF POVERTY AMONG FEMALE-HEADED HOUSEHOLDS: THE CASE OF SOUTH AFRICA

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ABSTRACT

Poverty is a persistent and complex phenomenon in development circles. The significance of tackling poverty particularly in its contextualised sense is important. Among the numerous facets of poverty is its different occurrence between females and males. Statistics indicate that 26 percent of females are poverty stricken; furthermore, female-headed households have incessantly been classified as susceptible to severe poverty. The aim of the study was to analyse the determinants of poverty in households headed by females. To examine the determinants of poverty, the upper bound poverty line (UBPL) was utilised, as designated by Stats SA. The study used the latest general household survey data collected by Statistics South Africa with a sample size of 19 219 observations. However, the sample size was reduced to 8 290, which is a representation of female-headed households in the sample. Statistical methods such as cross-tabulations, descriptive statistics and a binary logistic regression analysis were implemented. The estimated results indicated that income, age, household size, and race are significant determinants of poverty in female-headed households, and consequently determine the odds of falling into poverty. This research paper seeks to encourage government, policy-makers and relevant parties to steer robust policies towards improved opportunities for females such as educational prospects, better employment opportunities and making efforts to encourage heads of households to have smaller household sizes. These improvements will lead to reduced poverty levels and positively impact the economy in general. Alleviation of poverty, particularly among women, necessitates proper and formal job prospects, sustainable and good education from primary schooling, improved standard of life and health, initiatives that will compliment social grants, especially for young women with no children and no elderly persons in households; this group of people is unlikely to qualify for any social grant.

Keywords: determinants; female-headed household; household; poverty; South Africa

1. INTRODUCTION

Poverty reduction is an important policy objective universally. Although poverty is considered a universal problem, it is quite predominant in sub-Saharan Africa (Oldewage-Theron & Slabbert, 2010), due to the multi-faceted and overwhelming consequences of the phenomenon (Twerefou, Senadza & Owusu-Afriyie, 2014:78). Approximately 10 percent of the world's populace live in extreme poverty, below the World Bank's \$1.90 per day poverty line, which accounts for nearly one billion individuals (Compassion International, 2020). Post the Millennium Development Goals, the United Nations formulated an agenda with a new set of goals (Sustainable Development Goals (SDGs)), which are to be achieved by the year 2030. Goal one and goal two of the SDG, which aims

to eradicate extreme poverty by the year 2030, include ensuring that there is food security as well as the promotion of sustainable agriculture (World Health Organisation, 2015). However, Roser and Ortiz-Ospina (2019) argue that the world is lagging behind in its goal to end extreme hunger by 2030, South Africa included. As a result, stringent interventions should be implemented. Among the numerous facets of poverty is its different occurrence between females and males (Twerefou et al., 2014:78). According to Klasen, Lechtenfeld and Povel (2011), feminisation poverty has been a topic of interest among scholars (Chant, 2008; Bentley, 2004), which is partly due to the observation that there has been a growing increase in the number of households headed by females and the idea that these households are vulnerable to poverty. The earliest work of Pearce (1978) made an assertion that although numerous women have managed to participate in the labour market and thereby achieve economic independence, the phenomenon of poverty has swiftly panned out to be a female problem. Female heads of households seem to experience poverty severely (Twerefou et al., 2014). Although the topic has gained interest globally, there remains a gap – females are still highly disadvantaged and vulnerable economically, socially and otherwise. Against this background, the purpose of this study is to analyse the determinants of poverty in female-headed households in South Africa.

Poverty is one of the topics that receive attention in literature; as a result, studying the determinants of poverty at a micro-level, particularly at household level might seem overexerted (Stats SA, 2018; The World Bank, 2018). Nonetheless, taking into consideration the nature of poverty and the rapidity of change in female-headed household circumstances, one can argue that poverty in female-headed household is not overdone (Ajuruchukwu & Sanelise, 2016). Regardless of the attempts made to reduce poverty, females have still not attained economic equality with males and are still more prone to live in poverty in many countries. Most poverty studies focus on making a comparison of the poverty status of females and that of males. This study takes a different approach by solely focusing on poverty from the perspective of female heads of households. Moreover, it can be argued that poverty is practically on most household's ontological list of issues that exist. Therefore, philosophically, it is important to extend the question of the nature of poverty and its determinants in female-headed households. The issue of female poverty has to be continually interrogated, beyond generalised poverty studies.

The paper is structured as follows: Section 2 consists of the literature review (theoretical background, poverty from the perspective of South Africa and empirical review of poverty determinants); section 3 discusses the methodology of the paper (data discussion and model specification); section 4 provides the results; and finally, section 5 concludes the paper and highlights policy implications.

2. LITERATURE REVIEW

2.1 Theoretical background

Poverty has generally been defined as deprivation of basic needs such as food, shelter, water, healthcare and safety – basically all necessities required to attain a decent lifestyle (European Union (EU), 2007). Mendonça dos Santos (2018) asserts that people's necessities differ and can be determined socially and through an individual's past experiences. Hagenars and De Vos (1988)

contend that poverty is defined and categorised in absolute and relative terms. In absolute terms, poverty is defined as a situation where the income of a household falls below a specified level, thereby preventing the household from meeting their basic needs. When poverty is defined in absolute terms, economic growth does not necessarily have an impact on households living below the stipulated poverty line, since this definition is income based (Gordon, 2005). On the other hand, relative poverty compares the poverty status of one household to another. The definition looks at a situation where households or individuals have income, but the income at hand is approximately 50% less than what others have on average, i.e. the income is relatively not enough to meet all their basic necessities. Unlike absolute poverty, relative poverty can be influenced by the economic growth of a country (European Anti-Poverty Network (EAPN), 2009)

Poverty theory has been viewed from a perspective of individual deficiencies; according to this ideology, individuals are to be blamed for their state of poverty. The argument is that poor people create their own problems and lack of hard work and sound choices has led them to a situation that could have been avoided (Bradshaw, 2006). The theory further attributes the state of poverty to an unfortunate lack of genetic attributes such as intellect (Herrnstein & Murray, 1994). The neo-classical school of thought supports the individual deficiency notion as a basis of poverty, based on the idea that when individuals make choices, they do so to maximise their wellbeing. As such, individuals are responsible for their own choices and investments. For example, if one chooses to drop out of college, they forgo an opportunity that could bring better returns (Bradshaw, 2006). According to Lewis (1959), the culture of poverty theory stems from the basis that poverty is passed on from one generation to the next through beliefs, skills and values. The theory maintains that individuals are not responsible for their own misfortune, it is a result of their dysfunctional culture. Once the subculture of poverty is absorbed by the current generation, it becomes difficult for that generation to change their own perspectives even when prospects to do so present themselves.

On the other hand, the progressive social theory presumes that the individual is not the source of poverty, but poverty is birthed by social, economic and political systems that restrain people's ability to take advantage of opportunities and acquire resources that could help them attain income and welfare (Rank, Yoon & Hirschl, 2003). This theory is built on intellect from the likes of Marx, who exposed the weaknesses of capitalism, and Durkheim, who indicated that even individual actions such as suicide are in fact arbitrated by social systems. As such, poverty literature maintains that the poor are prone to lag behind despite their competency levels (Bradshaw, 2006). According to Glewwe (1987), economic theories propose that expenditure for each person is a preeminent indicator of welfare; however, this assumes that households continually maximise the satisfaction they get from the consumption of commodities. This assumption may not hold for households living in poverty, attempting to acquire their minimum subsistence level, and as a result, these indicators may not be reliable (Bogale, Hagedorn & Korf, 2005).

2.2 Poverty in South Africa

According to Stats SA (2019), between 2006 and 2011, South Africa made visible improvements in poverty reduction; however, poverty levels have intensified since 2011. Although progress has been witnessed, there are still obvious disparities of poverty among males and females. Nwosu and Ndinda

(2018) indicate that households headed by females have increased over time compared to male headship. This is due to factors such as early pregnancy, employment migration by male heads of households and female employment migration, which result in females having to take the headship role.

The predominance of poverty in South Africa has in many ways threatened the human rights of females (Bentley, 2004). In a study that analysed multifaceted gendered poverty in South Africa, Rogan (2016) found that females are confronted by difficulties in the labour market such as unemployment and lower wages, and this has resulted in high poverty due to low income levels (Nwosu & Ndinda, 2018). According to Stats SA (2019), compared to male employees, female employees earn nearly 30 percent less and are less likely to have better paying jobs. Stats SA (2018) and Kehler (2001) argue that female-headed households possess fewer resources at their disposal, which is especially true for black female-headed households who reportedly had an average expenditure of R58 016 (lowest compared to other ethnic groups) in 2018.

Cheteni, Khamfula and Mah (2019) argue that poverty is relatively high in rural areas compared to urban areas in the country, since in urban areas, females are involved in household decision-making. On the other hand, Rogan (2016) presumes that poverty is a result of societal misogyny and patriarchy that perpetuate inequality between men and women. It is therefore important to comprehend the social and cultural mechanisms that could be effective in eradicating poverty. Furthermore, South Africa has mostly focused on economic growth and social grants as policy measures against poverty; as effective as these instruments may be, one of the shortcomings is that they fail to tackle the actual source of poverty, which is embedded in cultural norms particularly in as far as gender is concerned.

In all population groups, female-headed households relatively live in poverty in all settlement types. According to Stats SA (2018), the 2014/2015 household survey indicates that approximately 49.9 percent of female headed households live below the upper-bound poverty line compared to only 33.0 percent of males. The number is significantly higher in rural areas where females living below the upper bound poverty line accounted for 74.8 percent. Cheteni et al. (2019) assert that poverty in South Africa cannot merely be attributed to apartheid, although the era may have been a deliberate root that left long-lasting effects.

2.3 Empirical review of determinants of poverty

Studies have endeavoured to elucidate the determinants of poverty in female-headed households, thereby building up on the feminisation of poverty hypothesis, which stipulates that female-headed households experience higher poverty rates compared to their male counterparts (Twerefou et al., 2014). A study by Moloma (2016) reported that factors such as education level, age and employment status are inversely related to poverty status in female-headed households. The study further emphasised that being female was one of the main factors that determine the poverty status in a household.

Boxil and Quarless (2005) reported that the geographic location of heads of households determines poverty in the Caribbean. Furthermore, female heads of households residing in rural areas were

reportedly the most vulnerable to poverty. Boxil and Quarless (2005) argue that female heads of households confined to rural areas are found to be poor, particularly those with lower years of schooling. On the other hand, Majeed and Malik (2014) contend that age is a significant determinant of poverty. The study argues that the younger the head of household is, the more vulnerable they are to poverty. This is especially true in cases where females are subjected to household chores and are not in a position to contribute or make life-changing decisions. Furthermore, the study argued that living in an urban area lessens the odds of being poor compared to those living in rural areas.

Similarly, Baiyegunhi and Fraser (2010) found that age, employment status and education level are statistically significant determinants of poverty in a rural area of the Eastern Cape in South Africa. On the contrary, Ajuruchukwu and Sanelise (2016) concluded that the correlation between poverty determinants such as age, education level and household size is inconclusive; the study argues that different studies have found contrasting results where some argue that poverty in male- and female-headed households is determined by the aforementioned factors while others have attributed poverty to the effects of institutions.

According to Hagenaar and De Vos (1988), in the Netherlands, the level of unemployment is one of the main factors of poverty; lack of employment has left a number of families destitute. Maloma (2016) adds to the former narrative, stating that there is a negative relationship between the unemployment status and the poverty status of the head of household – an unemployed head of household is more likely to fall into poverty and *vice versa*, especially that with large household size. According to Barros, Fox and Mendonça (1997), females generally earn lower amounts of money when employed, and this inequality has to some degree exacerbated the surge of poverty where females are concerned.

3. METHODOLOGY

3.1 Discussion of the data

The study makes use of secondary data collected by Stats Sa in 2018 (General Household Survey). The sample size was reduced from 20 908 households to 19 219 households after data cleaning and selection of households for the aim of the current study. The sample size of 19 219 includes both male and female heads of households. Table 1 provides descriptive statistics of male and female heads of households (Table 1). However, the rest of the results, including the regression analysis (binary logistic regression) and cross-tabulations, focus on female-headed households. To capture the determinants of poverty for the purposes of this study, the data was split to only include female-headed households. The results indicate that 43.1 percent of the sample are female and 56.9 are male. The representation of females in the sample is 8 290.

Table 1: Gender of the head of household

| | | Frequency | Percent |
|-------|--------|-----------|---------|
| Valid | Male | 10929 | 56.9 |
| | Female | 8290 | 43.1 |
| | Total | 19219 | 100.0 |

3.2 Measurements of poverty (the poverty lines)

Poverty rates are commonly measured using poverty lines. South Africa uses three poverty lines, namely food poverty line (FPL), lower-bound poverty line (LBPL), and upper-bound poverty line (UBPL), as demonstrated in Table 1. The study calculates the poverty status of the household by multiplying the poverty line per person (head of household) with the size of the household (HHS). The food poverty line is considered the lowest poverty line (poverty rates are low when estimating poverty according to the food poverty line), while the upper-bound poverty line is considered the highest and is commonly used since it provides a more holistic and realistic view of poverty in households. Although the poverty levels may be higher when using the UBPL, the UBPL captures the realistic day-to-day living of an ordinary person. The study, therefore, uses the UBPL in order to capture a more realistic poverty level of the head of household. Using the UBPL, a household poverty line (poverty status) was calculated as $(UBPL * HHS) = \text{Household Poverty Line (HHPL)}$. Based on this calculation, a household is considered poor if $HHPL > \text{HHTINC}$ (Household Total Income). Therefore, using the 2018 line values, for a household of six, the HHPL would be $6 * UBPL = 6 * R1183 = R7\ 098$.

Table 2: Inflation-adjusted national poverty lines

| Poverty lines | Description | 2018 line values | 2019 line values | 2020 line values |
|---------------------------------|---|------------------|------------------|------------------|
| Food poverty line (FPL) | Total money a person requires for minimum day-to-day consumption | R547 | R561 | R585 |
| Lower-bound poverty line (LBPL) | FPLFPL and the average total derived from household items other than food, whose total spending equals FPLFPL | R785 | R810 | R840 |
| Upper-bound poverty line (UBPL) | FPLFPL plus LBPL whose spending on food is equivalent to FPL | R1183 | R1227 | R1268 |

Source: Stats SA, 2020

Table 3 provides an indication of poverty in the sample based on the three poverty lines. The tabulated results are a representation of the whole sample, including male-headed households. This has been done for the purpose of profiling, since the rest of the results will solely focus on female-headed households. According to the FPL, approximately 19.7 percent of the sampled population are poor. The LBPL estimates that 26.7 percent of the heads of household live in poverty. On the other hand, higher poverty levels are estimated when looking at the UBPL, the results indicate that 38.3 percent of the heads of households are poor, based on the UBPL. Based on the results, it is evident that poverty rates are higher when estimated using the UBPL.

Table 3: Poverty lines

| Household poverty status food poverty line | | | |
|--|----------|-----------|---------|
| | | Frequency | Percent |
| Valid | Non-poor | 15440 | 80.3 |
| | Poor | 3779 | 19.7 |
| | Total | 19219 | 100.0 |
| Household poverty status lower-bound poverty line | | | |
| | | Frequency | Percent |
| Valid | Non-poor | 14082 | 73.3 |
| | Poor | 5137 | 26.7 |
| | Total | 19219 | 100.0 |
| Household poverty status upper-bound poverty line | | | |
| | | Frequency | Percent |
| Valid | Non-poor | 11856 | 61.7 |
| | Poor | 7363 | 38.3 |
| | Total | 19219 | 100.0 |

Table 4 depicts a cross-tabulation of the poverty status of the head of household; the poverty status was calculated as indicated above. The data indicates that more than 50 percent (53.9%) of female-headed households live in poverty, using the upper bound poverty line. Only 46.1 percent of the households were reported to be non-poor. This gives an indication that there is an over-representation of the poor in the sample, in comparison to those who are not poor.

Table 4: Poverty status

| | | HHPS_UBPL | | | |
|--------|--------|--------------------|--------|--------|--------|
| | | Non-poor | Poor | Total | |
| Gender | Female | Count | 3818 | 4472 | 8290 |
| | | % within gender | 46.1% | 53.9% | 100.0% |
| | | % within HHPS_UBPL | 100.0% | 100.0% | 100.0% |
| | | % of total | 46.1% | 53.9% | 100.0% |

3.3 Model specification

To model the determinants of poverty, the study follows a conditional probability model, where poverty status (dependent variable) is a categorical variable, labelled as $poor = 1$ and $non-poor = 0$.

The binary logistic model to be predicted is stated as follows:

$$\frac{p}{1-p} = PS = \beta_0 + \sum \beta_i X_i + \sum \alpha_j D_j + \varepsilon \dots \dots \quad (1)$$

$$PS = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \alpha_1 D_1 + \alpha_2 D_2 + \dots \alpha_n D_n + \varepsilon \dots \quad (2)$$

Where $\frac{p}{1-p}$ indicates the probabilities of being poor, and X_i is the determinants to be used in the model such as age and size of the household. The model also includes categorical variables (independent

variables) that are captured in the model as dummy variables, specified as D_i ; these consist of race, where white is the reference category, then black, coloured and Indian/Asians enter the model as dummy variables. Education level, employment status and marital status were also estimated; the following are reference categories: no schooling, not economically active and single. In the interpretation of the variables, all the other variables in each category will be compared to the reference variable.

$$PS = \beta_0 + \beta_1 Age_i + \beta_2 household\ size_i + \alpha_1 single_j + \alpha_2 married_j + \alpha_3 divorced_j + \alpha_4 widow_j + \alpha_5 white_j + \alpha_6 black_j + \alpha_7 indian/aisan_j + \alpha_7 employed_j + \alpha_8 unemployed_j + \alpha_9 + \alpha_{10} no\ schooling_j + \varepsilon \dots (3)$$

Table 5: Categorical variables’ coding

| | | Categorical variables’ coding | | | | |
|-------------------|-----------------------------------|-------------------------------|-------|-------|-------|-------|
| | | Frequency | (1) | (2) | (3) | (4) |
| Education level | Lower education | 4832 | 1.000 | .000 | .000 | .000 |
| | Matric and equivalent certificate | 1455 | .000 | 1.000 | .000 | .000 |
| | Diploma | 463 | .000 | .000 | 1.000 | .000 |
| | Bachelors and higher | 306 | .000 | .000 | .000 | 1.000 |
| | No schooling | 1200 | .000 | .000 | .000 | .000 |
| Marital status | Married | 1381 | 1.000 | .000 | .000 | |
| | Divorced | 647 | .000 | 1.000 | .000 | |
| | Widow | 2657 | .000 | .000 | 1.000 | |
| | Single | 3571 | .000 | .000 | .000 | |
| Race | African/black | 7276 | 1.000 | .000 | .000 | |
| | Coloured | 630 | .000 | 1.000 | .000 | |
| | Indian/Asian | 79 | .000 | .000 | 1.000 | |
| | White | 271 | .000 | .000 | .000 | |
| Employment status | Employed | 3760 | 1.000 | .000 | | |
| | Unemployed | 560 | .000 | 1.000 | | |
| | Not economically active | 3936 | | .000 | .000 | |

4. RESULTS AND DISCUSSION

4.1 Regression analysis

Table 6 depicts the binary logistic regression results on the determinants of poverty in female-headed households. To determine whether the model fits with the data, the study used a few tests. The omnibus test sets the null hypothesis that the data used is a bad fit with the model. The results propose a rejection of the null hypothesis (at 1% significance level) given the chi-square value of 9068.511 and the statistically significant p-value of 0.000. These results imply that the model is a good fit. The Cox and Snell R-square and Nagelkerke R-square reported values of 0.667 and 0.890, respectively; these values explain the variation in the dependent variable as denoted by the explanatory variables. This implies that the independent variables used in the model explained 67 percent and 89 percent of the variation in the poverty status of the heads of households.

The results report a negative beta coefficient (-5.800) for income and an $\text{Exp}(B)$ less than 1 (.003). By definition, an $\text{Exp}(B)$ indicates the odds ratio, which is an exponentiation of the beta coefficient. The results indicate a negative relationship between income and poverty. The number on the odds ratio is a signal of how small the effect of change in income would be on the odds of poverty, despite the log. Therefore, the implication is that a household is likely to fall into poverty if the household head earns less income, and the opposite is true when a household head earns more income. The result reports a p-value of 0.00, indicating that income is indeed a significant determinant of poverty in female-headed households.

The variable for household size reported a significant p-value (0.000) and indicates a positive coefficient of 2.427 as well as an $\text{Exp}(B)$ of 11.321. This result suggests that the odds of being poor increase by 11.321 if there is a unit change in the size of the household. Therefore, the bigger the household size, the higher the odds of the household falling into poverty (based on the UBPL). This result is aligned with the findings of Maloma (2016), who found a positive relationship between household size and poverty status. Furthermore, larger households, particularly those with children, tend to consume more household utilities such as food, compared to smaller households (Geda, Jong, Kimenyi & Mwabu, 2005).

Table 6: Regression model

| Variable name | B | S.E. | Wald | Df | Sig. | Exp(B) |
|---------------------------------------|--------|-------|---------|----|---------|--------|
| Constant | 57.598 | 2.025 | 809.330 | 1 | .000 | 1.034 |
| Log income | -5.800 | .193 | 901.226 | 1 | .000*** | .003 |
| Household size | 2.427 | .081 | 886.944 | 1 | .000*** | 11.321 |
| Age | -.009 | .005 | 2.841 | 1 | .092* | .991 |
| White | | | 28.767 | 3 | .000*** | |
| African (1) | 1.956 | .422 | 21.463 | 1 | .000*** | 7.069 |
| Coloured (2) | 1.423 | .456 | 9.755 | 1 | .002*** | 4.150 |
| Indian/Asian (3) | 1.394 | .653 | 4.559 | 1 | .033** | 4.031 |
| Single | | | 10.099 | 3 | .018** | |
| Married (1) | .542 | .176 | 9.467 | 1 | .002*** | 1.719 |
| Divorced (2) | .205 | .214 | .917 | 1 | .338 | 1.227 |
| Widow (3) | .246 | .143 | 2.946 | 1 | .086* | 1.279 |
| Not economically active | | | 3.395 | 2 | .183 | |
| Employed (1) | .286 | .155 | 3.384 | 1 | .066* | 1.331 |
| Unemployed (2) | .238 | .376 | .400 | 1 | .527 | 1.269 |
| No schooling | | | 3.444 | 4 | .486 | |
| Lower education (1) | .054 | .143 | .143 | 1 | .706 | 1.055 |
| Matric and equivalent certificate (2) | .145 | .216 | .452 | 1 | .501 | 1.156 |
| Diploma (3) | .645 | .444 | 2.110 | 1 | .146 | 1.906 |
| Bachelor's degree and higher (4) | .706 | .586 | 1.451 | 1 | .228 | 2.027 |

Omnibus test of model coefficients: Chi-square = 9068.511 p-value = 0.000

-2 log likelihood = 2330.132 Cox and Snell R Square = 0.667 Nagelkerke R Square = 0.890

The variable for age of the head of household shows a negative coefficient of .009, indicating that poverty tends to decrease as an individual gets older. The variable reports a significant p-value (.000) and an Exp(B) of 11.321, which indicates the definite change in odds. These findings are consistent with the findings of Sánchez-Páramo and Munoz-Boudet (2018), whose study reported that young girls experience higher poverty levels compared to the general population. Majeed and Malik (2014) further argue that this is especially true in the cases of females subjected to household chores and unable to earn income. On the other hand, Anyanwu (2014:127) contends that the older an individual gets, the more resources can be accumulated, thereby lessening the probability of poverty.

Race has been categorised as white, black, coloured and Indian/Asian, where white is the reference category. The findings indicate that coloured, Indian and black heads of households have a higher chance of being poor compared to their white counterparts. All the p-values in the race category are significant (at 1% and 5% significance level, respectively). According to Gradin (2012), this is not unheard of in South Africa and can be ascribed to the legacy of apartheid. The probability of being poor is much less for heads of households who are employed as opposed to their counterparts, particularly those in the reference category (not economically active). However, the results indicate that the employment status was not a significant predictor.

Marital status shows that compared to single (reference category) heads of households, married heads of households are more likely to be poor. The variable reported a positive coefficient of .542 and an Exp(B) of 1.719 and a significant p-value of .002. This finding is a significant predictor of poverty. This finding is inconsistent with the study of Sigle-rushton and McInahan (2002), who reported that married heads of households have a lower likelihood of being poor due to possible combined income as well as shared expenses. Divorced and widowed heads of households showed coefficients of .205 and .246, respectively, where the p-value of the widowed variable was found to be significant (.086). This finding is consistent with the findings of Ortega-Díaz (2020), who reported that divorced female heads of households are relatively poor. Ortega-Díaz attributes this to laws that authenticate that, in case of divorce, whomever owns certain assets should be able to retain them – in most cases, women do not possess assets.

The study finds interesting results in the category of employment status. The results indicate that in the case of female-headed households, despite the employment status, the heads of households still have relatively similar odds of being poor (odds of poverty increase by 1.33 when employed and increase by 1.269 when unemployed). Therefore, heads of households still live in poverty even when they are employed. This can be attributed to the low earnings of females and other discriminatory practices in the labour market (Nwosu & Ndinda, 2018), such that even if they are employed, the head of households is still living in poverty. The variable for the employed indicated a significant p-value (.066), and therefore employment status is a significant predictor of poverty. Similar results were found in the category of education level; the results indicate that despite education level; the odds of poverty still increase in the sampled female-headed households. The highest educational level category indicates that the odds of poverty decrease as heads of households acquire more qualifications in comparison to those with no schooling. This can be attributed to lack of employment in South Africa as well as the societal biases faced by females. Stats SA (2018) reported that men

fare better than women in the labour market in terms of getting the actual job, the position that they hold as well as the earnings. According to Barros et al. (1997), female-headed households are likely to differ from males in demographic, microeconomic and sociological characteristics; as a result, the differences have an impact on policy-making.

5. CONCLUSION

The aim of this study has been to analyse the determinants of poverty among female-headed households in South Africa. This was necessitated by the increasing prevalence of poverty and the widening economic inequality gap among female-headed households. The limitation of the study is that only one poverty line was used for poverty status analysis and running the model. It would be interesting for future studies to make a comparison of poverty levels in households using all three designated poverty lines and to make a comparison among women from other developing and developed countries. The analysis indicated that socioeconomic factors such as income and household size, and demographic factors such as age and race are essential variables in the determination of poverty status in female-headed households. These factors have an impact on the head of household's ability to earn a decent living. The income of the head of household was found to be a significant predictor of poverty. The study reported that the more income the head of household has, the lower the odds of being poor will be. The results revealed that larger households are more vulnerable to poverty, while, on the contrary, if a household has fewer people, particularly children, the household spends less on household utilities, food and other needs. Unique findings were also found. The study reported that regardless of the employment status and education level, female-headed households are still found to be poor. The findings of the study confirm that it is not a myth that females in South Africa's labour markets are discriminated against and suffer from social biases, which have, in turn, contributed to higher poverty levels on their end. This research paper seeks to encourage government, policy-makers and relevant parties to steer robust policies towards improved opportunities for females such as educational prospects, better employment opportunities and making efforts to encourage heads of households to have smaller household sizes. These improvements will lead to reduced poverty levels and positively impact the economy in general. Alleviation of poverty, particularly among women, necessitates proper and formal job prospects, sustainable and good education from primary schooling, improved standard of life and health, initiatives that will compliment social grants especially for young women with no children and no elderly persons in households; this group of people is unlikely to qualify for any social grant. Programmes such as the Millennium Development Goals and Sustainable Development Goals as well as strategies such as the Reconstruction and Development Programme (RDP), Growth, Employment and Redistribution Africa (GEAR) are envisioned to combat poverty in different ways in South Africa; however, despite the aforementioned strategies, the country is still battling with increasing poverty rates. Furthermore, the unemployment rate in the country has increased gravely as a result – more people are dependent on social grants.

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A CRITICAL REVIEW OF LITERATURE ON PERFORMANCE MEASUREMENT EFFECTS ON ACADEMIC EMPLOYEES' EFFECTIVENESS, EFFICIENCY, AND ORGANISATIONAL CULTURE: A SYNTHESIS OF THE LITERATURE

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ABSTRACT

Performance measurement is a vital part of the new managerialism in higher education. Measuring inputs is relatively easy, but measuring outputs in a way that does justice to issues of quality is more difficult. Until those quality issues are resolved, performance measurement will be viewed by academics as an externally imposed constraint rather than how they judge themselves. Many university employees, especially academics, are critical of the top-down, and formulaic forms of performance measurement in the governance of academic work as this embodies a peculiar tension, even contradiction. On the one hand, this emphasis is symptomatic of the belief that academics, just as other professional actors, require monitoring and incentive structures, if their performance is to be improved. This belief and the governance practice it supports speak of little, maybe too little, trust in academics and their intrinsic motivations. Moreover, this lack of trust may itself also prove to be costly, for trust, while itself involving an (albeit) implicit and informal form of accountability, releases us from the need for checking. On the other hand, the strong emphasis on performance measurement mechanisms in higher education is indicative of a strong, arguably too strong, degree of trust among the relevant authorities in performance measurement as an effective instrument of governance, where the use and usefulness of performance measures are often simply taken for granted. The focus of this article is to critically review the literature on the impact of performance measurements in enhancing effectiveness, efficiency, and change in organisational culture.

Keywords: Employee performance; grounded theory; organisational change; higher education

1. INTRODUCTION

Recent times have seen a proliferation of institutionalised forms of performance measurement and associated performance management instruments in a wide range of public institutions. According to Abbot and Meyer (2019), without a monitoring tool, the performance measurement system (PMS), in this case, institutions face challenges of retrenchments and bankruptcy. It is argued that organisations that value performance measurement has a better competitive advantage in bankruptcy and continue to improve organisational effectiveness (Maake, 2020). Performance measurement has become an important issue for both public institutions of higher learning and private institutions. The external and internal pressures have mainly brought about its importance from the government that forces the universities to improve their governance systems, organisational structure, and management styles. It has been observed that through the implementation of best practices, profit

organisations have adopted management tools and practices such as performance measurements into their management activities (Alach, 2017). The performance measurement system emerged in the corporate management style to promote equality in organisations (Birdsall, 2018). This approach of equality is intended to ensure that higher education institutions are succeeding.

It has been observed that there is a rapid growth in research with an emphasis on resource allocation. Research concerning the allocation of resources and the accounting system at higher education institutions has however not been researched. A study of performance measurement effects on academic employees' effectiveness, efficiency, and organisational culture is lacking. Even though higher education institutions' measurement is based on excellence in scholarly teaching, scholarly research, scholarly community engagement, and academic citizenship, the present study also identified the gap by focusing on the work of academics. Therefore, based on the scenario above, this study's main purpose was to review the literature on the effects of performance measurements in enhancing effectiveness, efficiency, and change in organisational culture at a public university in South Africa.

2. LITERATURE REVIEW

The concept of PMS in the past has never been a complex issue in the African continent as we are currently experiencing. The topic of PMS has gained popularity and recognition worldwide in urgent demand in higher education and distributed all over so that stakeholders can get access worldwide (Angiola, Bianchi & Damato, 2017). Currently, there is an urgent demand to understand PMS, which has a deeper meaning than what we see at face value. Before 1994, institutions of higher learning were experiencing discrimination in terms of race, gender, and class. With the birth of democracy in South Africa, the African National Congress (ANC) government committed itself to change higher education from the apartheid social structure that they had inherited and to institutionalise a new social order. The transformation of higher education led to the birth of new legislation and other changes in the higher education sector (Dlamini, 2020). These, according to Molefe (2011), include the following legislation and policies: National Plan for Higher Education (2001), South African Qualification Authority Act (1995), Skills Development Act (1998), Skills Development Levies Act (1999), National Training Strategy Initiative (1994) and White paper on Transformation of Higher Education (1997). The birth of these policies forced the nature of academic work to include performance management and quality assessments (Maimela, 2015).

Performance measurement defined

Broadly defined, performance measurement focuses on achieving the goals of the organisation (Ngcamu, 2013). The term is often associated with performance evaluation and performance appraisal, although they do not mean the same thing (Molefe, 2012). It is argued that you cannot manage what you cannot measure. Adams (2013) asserted that PMS is a series of measures used to state the desired outputs of actions. In addition to the preceding, Gie, Munyeka, Abidemi, Dhanpat, Naidoo, Keyser, Bezuidenhout, Gura, de Klerk, Mdindela-Majova, Kroukamp and Joseph (2021: 273) on the other hand, defined performance measurement as a "process of assessing the performance against the agreed desired standards and looking at identified performance factors, which include

transgressing from the present state to the desired state from the agreed standard”. An effective PMS allows an organisation to do introspection to determine whether the organisation can achieve its intended goals and initiate its improvement by identifying its position clarifying goals, highlighting areas requiring improvement, and initiating reliable forecasts (Smith, 2015). Tung, Baird and Schoch (2011) argued that an excellent PMS allows an organisation to assess and be in charge of its performance to align with its stated goals. Research indicates that maintaining an effective PMS is important for the following reasons:

In a productive organisation, every employee's contribution to the organisation is measured based on their performance. If this measurement of performance is done correctly, both the organisation and employees benefit positively. The views of Updhaya, Munir, and Blount (2013), and those of Alboushura, Shabudin and Abdallah (2015) denote that the measurement of this performance leads to improvement in all aspects of organisational performance. Such improvement can be achieved by developing measures that mirror the organisation’s objectives, which are essential for the successful implementation of its strategic plan. Furthermore, measurement of performance within an organisation helps manage, control and monitor the strategic activities and achievements of the organisation. Additionally, PMS is a workable means for driving the organisation's vision, implementing its strategy, aligning its actions and organisational behaviours, and supporting its decision-making. Lastly, these performance measures should be clearly defined, unambiguous, and explicitly communicated to all concerned within the organisation. Turki and Duffuaa (2018) postulated that performance measures should be relevant, easily interpretable, timelessly reliable, and valid to such an extent that the PMS system can effectively drive the organisation's vision.

The consequences of performance measurement systems can be divided into the following variables: people's behaviour, organisational capabilities, and performance consequences (Franco-Santos a, Lucianetti, & Bournea, 2012). Higher education institutions locally, in Africa, and internationally, are focusing more on teaching and research performance among their lecturers (Molefe, 2010).

The purpose of performance management systems

“Without strategic objectives, the organization will not know where it is heading” (Smith 2015). According to Ngecamu (2013), performance management is employed to achieve five primary goals that include the following:

- Facilitate increased accountability and productivity.
- Facilitate learning and improvement.
- Provide early warning signals on poor performance.
- Facilitate decision-making.

According to the Performance Management Manual of the CUT (2006: 6), performance management becomes vital for higher education institutions for the following reasons:

- Maximisation of results that are aligned with organisational goals.

- Increased rewards for excellent performance.
- Establishment of mentors for newly appointed employees.
- The development of teamwork among staff members.
- High levels of expectations in terms of communication.
- Recognising of poor performance, dealing with poor performance.
- The ability to demonstrate accountability.

The effectiveness of a monitoring management system at universities depends on the effectiveness of the implemented instrument to assess performance measures. Decramer et al. (2012) postulated that an excellent performance management system can add value that will improve performance at university from departmental level up to faculty levels, and will inform the institution's customers who have the best interest at the heart of the institution and assisting the institution in achieving its goals and objectives and adding value to the community (Weyers, 2010).

Not all performance management systems will produce desired outcomes, not unless such a system has been appropriately aligned with the organisation's strategic objectives to ensure the effective and efficient implementation of the system (Meyer, 2019). The crucial factor in the success of any organisation in this competitive environment is the capability to ensure that all employees have a proper understanding of what they are required to do to add to the organisation's success (Makamu, 2016).

Goal-setting theory

Theory by Lathan and Locke (1979) was used to develop the structural relationship among the study variables. The following sections briefly explain the theory to provide a deeper understanding of how it explains the relationship. Werner et al. (2017) stated that a set of goals can give a sense of direction for institutional performance to be assessed and controlled. Therefore, the supervisor's role is to identify and communicate the department's overall objectives to their staff; discussing and reaching an agreement at the beginning of the cycle, together with periodic feedback and modification, is essential. As Lathan and Locke (1979) stipulated in Armstrong (2009), several activities connect performance outcomes. The performance outcomes channel attention to priority, stimulating all efforts by challenging all to bring their knowledge, skills, and expertise to increase chances of success.

According to Crawshaw, Budwar, and Davis (2014), the goal-setting theory is a component of the performance management process, which seeks to bridge the gap between achieved and desired performance. For employees to know what is expected of them, goals must be unambiguous.

Performance management frameworks in a university setting

The concept of performance management has been under investigation by researchers due to its complexity arising from several frameworks found in the literature. Even though it is available, its focus is on a set of variables involving some variations in establishing performance goals for employees, assessing performance, and providing feedback (Grunman & Saks, 2011). Evaluating the

nature of the institution before implementing the model is very important. However, it is well-managed organisations that can improve their performance. The following two performance management frameworks add value to individual and organisational performance: the balanced scorecard performance management model (Kaplan & Norton,1996) and the South African Board for People Practices (SABPP) model, 2014.

The balanced scorecard

The balanced scorecard (BSC) is a framework that allows institutions to put in action goals and objectives by focusing on various perspectives: Financial, customer, Internal/and learning growth (Kaplan & Norton,1996). Developing a balanced scorecard motivates organisations to link their financial objectives to corporate strategy. It also connects the vision and strategy to employees' everyday actions by putting the abstract strategy into clear strategic priorities and initiatives. And, when relating these to clear, tangible strategic outcomes, the organisation and its employees must strive for: satisfied shareholders, delighted customers, effective and efficient processes, and motivated staff. Research has identified that institutions that have implemented a BSC strategy perform better than institutions without a formal strategy for strategic performance management (Bussin, 2013).

The BSC framework is depicted in Figure 1 below.

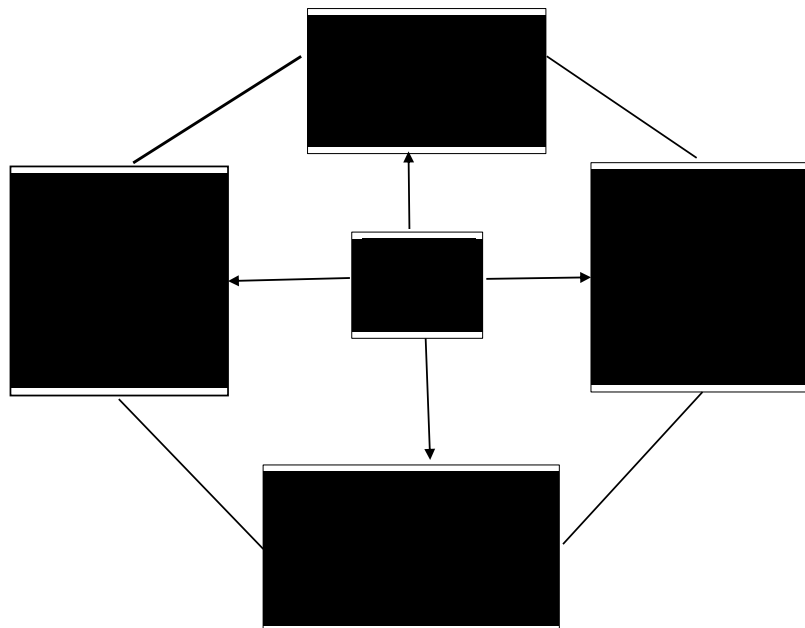


Figure 1: Balanced scorecard framework

South African Board for People Practices (SABPP) model 2014

Gie et al. (2021) stressed that performance management is an ongoing process of evaluating and managing the behaviour and outcome of individuals and groups within the organisation. According to Abbot and Meyer (2019), the performance management provides employees with a reasonable

understanding of what they need to accomplish and how it will be measured. Clear instructions are provided about the types of practices individuals need in order to perform their obligations to adequate levels that can be effectively assessed.

The SABPP 2014 model is illustrated in Figure 2 below

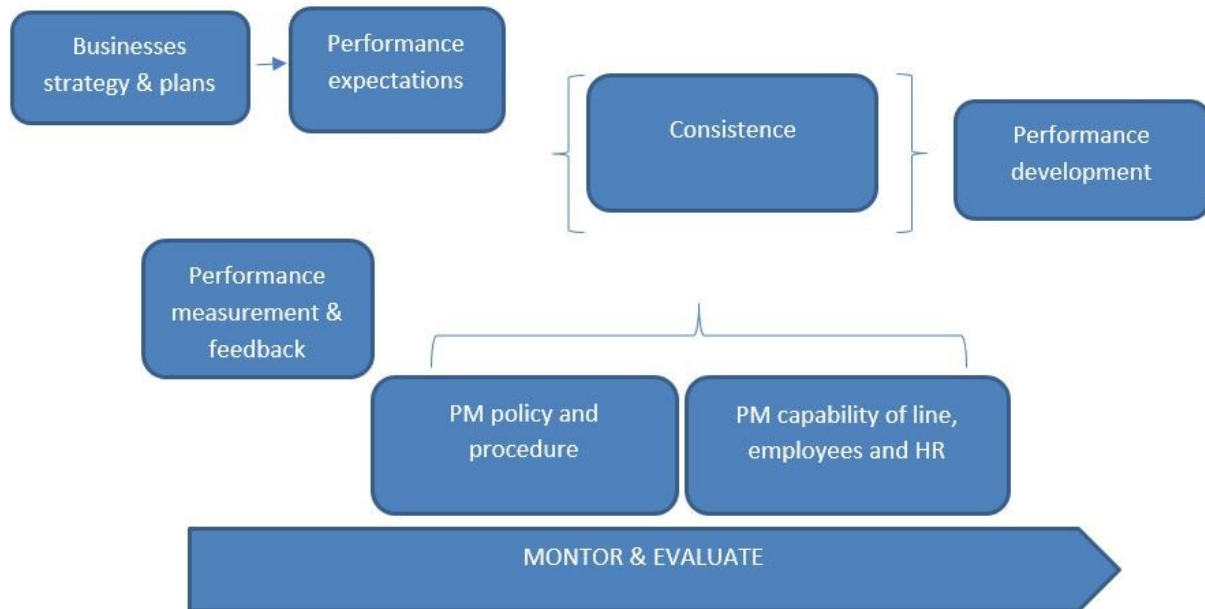


Figure 2: SABPP Model

The SABPP model (2014) explains performance measurement (PM) as a strategic procedure. This strategic procedure entails directing and developing objectives by providing a PMS. Performance planning as part of strategic planning means that employees need to be aware of:

- the performance standards,
- how performance will be measured, and
- what the expected performance result for the individual and the team is.

According to the SABPP 2014 model, the fundamental principles of performance management include the following:

Performance expectations

According to Meyer (2019), every staff member must know what is expected of them based on the nature of the job they are performing. This means that the stated expectations must be aligned with the strategic objectives and values of the organisation. Therefore, performance expectations/standards should be communicated and implemented throughout the organisation (Smith, 2015). Performance standards must be set at the organisational, business unit or department, team, and individual level – this process is known as cascading goals/objectives/targets. Expectations of different business units, departments, or teams should not contradict each other or be set up in competition.

The views of Tung, Baird and Schoch (2011) denote that performance expectations should be communicated in measurable terms to monitor employees' performance at all levels. Where a performance expectation is related to behaviour, the standard should be clearly described. A written agreement of the desired expectations should be concluded and agreed upon once a year. This agreement indicates some form of consultation with each employee and consideration of input from the employee. A process of dealing with disagreements should be in place (Ngcamu, 2013). A formal agreement should be reached when employees are in a collective bargaining unit. According to Maake (2020), contingency measures should be provided in each performance agreement to prevent unexpected events during the year.

Performance feedback

According to Alboushura, Shabudin and Abdolia (2015), team performance achievements should be publicly displayed. Mechanisms such as dashboards and charts should be used as much as possible. Every employee should receive honest feedback on their achieved performance level both in informal and formal terms. This means an employee should know exactly how the manager views their performance. Informal feedback should be given frequently and should recognise both good and poor performance incidents.

Formal feedback should be given at intervals, which allow the employee to correct their performance to the required standard, should deviations have occurred. The manager is responsible for deciding on achieved performance but should ensure that the employees' views are taken into account. That information on the performance of a subordinate is gathered from various sources (Meyer, 2019).

Consistency

The view of the SABPP (2014) denotes that even where the basis of performance expectations and measurement is strictly measurable and objective, differences between individuals and teams can arise, which may seem subjective and unfair. Therefore, a process should be in place to: train both manager and employees to set standards and measure results on a standardised basis; enable managers and employees to compare with other similar cases; and provide for a third view on disagreement. A mechanism such as a review of performance contracts and performance ratings by a management team can be helpful to ensure fairness. Methods of normalising performance ratings, for example forced distribution onto a standard Bell curve, should be used with great caution, especially in small groups (Abbot & Myer, 2019). These do not assist in judging the relative contributions of the worst performer in a very high-performing team against the best performer in an under-achieving team.

Leadership

Visible role modelling by the leader at the institution at large must underpin the monitoring tool approach (Meyer, 2019). Wisdom, fairness, and compassion should be demonstrated in dealing with conflict that will inevitably arise around applying performance management within the organisation. Only to the extent that everyone lives in the system will it take root and become a performance culture (SABPP 2014).

Performance management approach and policy

Armstrong (2009) stated that principles need to be applied within an organisation to introduce complexity and integration with other processes only to the extent that these suit: the type of organisation, its location, size, maturity, structure, and culture. In other words, keep the approach as simple as possible and only link to other processes such as reward and career pathing when the whole HR environment is sufficiently matured. The approach should follow the people strategy, which encompasses the talent management strategy and the HR risk management strategy (Aguinis, 2013). As outlined in the Standard Elements, these strategies will have been discussed and adopted by the top management structures of the organisation. From there, the performance management policy can be drawn up for a consultation with all appropriate structures. The policy should clearly state the basis and methodology for setting performance expectations and, where applicable, the rating scales to be used, the frequency and method of giving performance feedback, and how consistency will be assured. The links are to other processes such as reward, recognition, learning and development, and career pathing. It will be necessary to know what will happen when a team gets a new manager or an employee transfers.

The policy clarifies that procedures and the business process should be developed, setting out the step-by-step process of what needs to be done, by whom, when, and to what standard.

Provide support to improve/develop performance at the individual, team, and organisational levels (SABPP 2014).

According to Sishuba (2019), team and organisational performance should be regarded as more than the sum of the parts of individual performance. Individual employee performance can be developed through many routes, and the performance management process should include consideration of factors such as those below in diagnosing possible ways to improve performance:

Motivation factors

According to Seyama and Smith (2015), motivation considers the nature of the job; whether the employee has the autonomy of the job; whether the job provides sufficient autonomy; whether the employee gets satisfaction from performing the job to the extent that the employee becomes committed; and whether the job results in the employee's engagement with the manager, the team, and the organisation. Personal problems.

Expected behaviour factors

Meyer (2019) postulated clear statements of expected behaviours. Organisation of work – transparent allocation of roles and responsibilities. Work resources – tools, manuals, guidelines, flow charts, measurement feedback. Knowledge or skills requirement – training. Health issues, which can affect team functioning.

Develop performance capability across the organisation

- Key capabilities to be developed for managers include:

The ability to analyse the business strategy and break it down into clear and achievable performance expectations at different levels (Ngcamu, 2013). The ability to provide structured communication to employees, which assists them in tracking progress against expectations. The ability to give honest feedback to subordinates – having a difficult conversation while still encouraging better performance. The ability to confront poor performance early on and assist the employee in finding the right way to correct performance (Maimela, 2015).

- Key capabilities to be developed for the non-management employee include:

The ability to understand organisation key drivers and apply these to one's work. The ability to understand performance measures applicable to one's team and own work. The ability to receive feedback and have constructive discussions on performance (SABPP 2014).

Evaluate the effectiveness of the performance management system

According to Abbot and Meyer (2019), data on organisational performance is readily available and should be used to track trends and evaluate whether specific performance management interventions are impacted. Audits of compliance to performance management procedures should form part of normal internal audits. Compliance should be part of all line managers' performance, and feedback from line managers and employees on the ease of use of tools should form part of the performance contract. Performance management should be included in employee engagement surveys to check that the fundamental principles are being applied (Molefe 2011).

Higher education institutions need to deal effectively with performance to reach the goals and objectives of the organisation. As stated clearly by Adams (2013), PM models and approaches need to be aligned with the universities' visions to allow institutions to transform and adjust accordingly.

3. FINDINGS

Performance management system in the case of higher education institutions

Sishuba (2021) postulated that in higher education, to manage organisational and individual performance management, management needs to follow five phases, namely performance planning; performance implementation, monitoring and development; performance review; performance assessment at the end of the year; and an integrated performance management system rating. If the above phases are implemented effectively, the academics can achieve the strategic goals of universities. Regarding higher education institutions, academics are evaluated based on key performance areas. These key performance areas are the same as those of the SABPP model discussed above. For academics, four key process indicators (KPAs) are scholarly teaching and learning, scholarly research, community engagement, and academic citizenship.

For teaching and learning, the KPAs of academics are assessed using the latest teaching methods like videos and other learning management systems to teach their students. When it comes to research, KPAs of academics are evaluated based on the output of research publications produced per year. The community engagement KPA of academics is assessed based on the number of projects involved

in a particular area. Lastly, for the academic citizenship KPA, academics are evaluated on their affiliation to professional bodies and how active they are in that professional body.

Performance management and the effectiveness of performance management systems

Performance management comprises guiding and assisting employees in working to the best of their abilities to achieve the goals and objectives of the organisation (Kagaari, Munene & Ntayi, 2010:508). An effective PMS is clearly defined as accomplishing the communicated objectives assigned for a task. Clinquini and Mitchele (2005) stated that PMS is important for various reasons. Firstly, it promotes goal synchronisation, for example an effective PMS can assist in marketing the organisation's strategic goals and ensuring that employees' goals are aligned with the institution's goals. Second, an effective PMS helps the manager develop reliable information to help tracing the organisation's performance and effectively assessing employees' performance. Lastly, an effective PMS will assist the organisation in forecasting by providing the current state and the desired state of the organisation (Tung, Herbert & Schoch, 2011). Ngcamu (2013) postulated that it is implemented according to the required standards. Performance management will produce positive results that will place the organisation at a competitive advantage for a long time.

Melo and Figueiredo (2019) stated that for an effective performance management system, a link must be developed between such system and the strategic human resources management process. Higher education institutions are expected to manage performance effectively. Once they do that, they will be able to compete and even gain a competitive advantage and respond to the environmental changes (Serwani 2015). Again, to add value, PM needs to ensure employees' understanding thereof and potential to use it. Also, PM has to be strategically planned and involve the organisation's long-term goals. Thirdly, it has to integrate and link different parts of the business like human capital, management, and all stakeholders (CIPD, 2009; CPD, 2013).

Dlamini (2017:28) agreed that an effective performance management system has the responsibility of achieving goals, especially human resource management. The goals are as follows: motivating performance, assisting individuals in developing their skills, building a performance culture, determining who should be promoted, and eliminating poor performers. Furthermore, Maake (2020) indicated that a performance management system that can achieve these objectives could add value and positively contribute to higher education institutions' effectiveness. The result of an effective PM is happy employees, which leads to employee satisfaction, employee motivation and commitment, which ultimately leads to higher performance (Decramer et al., 2012). It is imperative to develop a PM system in higher education institutions. It helps to understand job performance through performance measures, individual employees being rewarded and recognised for development opportunities through accurate performance evaluation, and constructive feedback. However, it is vital for PM to be redefined to function effectively in higher education institutions (Deshmukh et al., 2010).

Performance management and organisational culture

As stated by Robbins et al. (2018), organisational culture refers to an agreed way of doing things by staff members in the organisation and that differentiates the organisation from other organisations.

Organisations, irrespective of their size and affiliation, need to deal effectively with performance to reach their goals and objectives. A performance culture should be established where results and not efforts are rewarded for individual, group, and organisational performance. This can only be accomplished when employees, teams, and the organisations have clarity regarding their expectations (Gie et al., 2021:270). This clarity enables supervisors, employees, and teams to measure performance against pre-agreed standards. In South Africa, PM is influenced by different legislative acts and policy documents that state and mandate these performance management system processes (Mello & Sarrico, 2015). PMS plays a vital role in promoting an organisational culture. Robbins et al. (2018) stated that organisational culture affects the performance of the organisation.

According to Abbot and Meyer (2019), PMS processes need to be introduced as a culture optimally used to produce positive performance results for the benefit of both the employer and the organisation. Birdsall (2018) asserted that to create a culture that forces the commitment of academics, institutions must measure progress towards stated, specific and measurable goals. This can be achieved by developing goals that are aligned with the organisation's stated goals (Aguinis, 2013). In a nutshell, the staff are expected to be committed to knowing how they add value to their organisation's goals. Developing performance management can bring about the birth of a new culture, a culture change in staff that will automatically lead to change in the organisation's culture.

4. CONCLUSION

Performance measurement in universities has been a complex topic; however, relatively little research work has been conducted in this regard. Because of its importance, no university in the world will sustain without performance measurement. Academics have a responsibility to critically evaluate the extent of performance management. Furthermore, the management has to stand firm in ensuring performance measurements at universities. Hence, with effective performance measurements, universities would be internally and externally competitive. Meyer (2019) stated that HR standards are essential to improve the consistency and quality of HR management. Also, doing things right is at the centre of HR standards. As academics, we need to enhance performance to improve the performance in our universities. Lastly, it is important to emphasise that performance management in any institution depends on the agreed upon primary objectives to which employees need to be willing to pledge and commit (Gie et al, 2021).

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THE IMPACT OF FINANCIAL LITERACY ON THE VIABILITY OF SMES (SCOPING REVIEW)

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ABSTRACT

While the success of small and medium and enterprises (SMEs) is vital for the South African economy as it has a direct impact on the economic growth, the failure rate of SMEs is high throughout the world and South Africa is no exception. Therefore, this study seeks to assess whether financial literacy skills such as expenditure, borrowing, business protection and savings have a bearing on the success or failure of SMEs. The scoping review methodology was used to collect data which did not include or exclude studies based on their research design. The study reveals that managers and/or owners of SMEs do not have the necessary financial literacy skills to sustain their businesses. Issues of expenditure, budgeting, borrowing, business protection and savings are considered pertinent to daily operations. The sustainability of any SME depends on the ability of their owners or managers to have financial literacy skills in managing financial issues.

Keywords: Small and medium enterprises, financial literacy skills, budgeting, borrowing, debt.

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1. INTRODUCTION

Worldwide, small businesses make vital contributions to economic growth, employment and social justice (Mahohomat 2018; Sharmilee 2014). They can therefore be seen as an answer to the problem of high unemployment which is a sign of poor economic growth in South Africa (Scheers 2016: 349). SMEs also provide skills development for their owners and managers (Mohamed et al 2013, cited in Mbatha 2015:4). Financial literacy plays a crucial role in ensuring the viability of SMEs. Many stakeholders including scholars, the state as well as private and public businesses are interested in financial literacy (Roberts, Struwig, Gordon, Viljoen and Wentzel 2014). According to Atkinson and Messy's 2012 study (cited in Musie 2015), financial literacy has become essential in the running of businesses and in the operations of organisations in today's complex and dynamic environment. It is believed that good financial skills can make a difference to a small business owner or manager who understands the financial statements of a business in a way that is not otherwise possible if he or she is financially illiterate (Yawson2018:9).

According to Atkinson and Messy's 2012 study (cited in Musie 2015) highlights that financial literacy has become essential in the running of businesses and operations of organisation in the complex and dynamic SME environment today. It is articulated that good financial skills in a business can make a difference, a small business owner or manager who understand the financial statements of a business understand the business in a way that is not otherwise possible if the small business owner or manager is financial illiterate (Yawson 2018:9). After the global financial crisis of 2008/2009, many countries implemented developmental programmes with the aim of improving the financial literacy levels of their citizens. Bay, Catusus and Johed (2014:36) argue that financial literacy is a concept that needs a practical study because its characteristics inancial literacy vary with time and place. Attempts to enhance financial literacy should therefore be robust. According to Nyambonga, Nyamweya, Adi, Njeru and George (2014:181), only 50% of SMEs survive more than five years and only a few develop into real firms that prosper in terms of innovation. Significantly, Karadag (2015:25) notes that poor financial management and knowledge were some of the reasons why SMEs fail.

Research objectives

- 1) To assess the current literacy skills of SME managers;
- 2) To assess whether financial literacy skills have an impact on SME success.

2. LITERATURE REVIEW

According to Mbatha (2015:13), SMEs are a very important factor in the economic growth of the business sector. Promoting SMEs is the key to economic growth and job creation (Ncube 2015:2). Ncube (2016:11) further states that SME contributions towards growth, job creation and social progress cannot be overemphasised. The Global Entrepreneurship Monitor (GEM) report of 2015 suggests that the top performing African countries with regard to entrepreneurship are Botswana and Senegal with a total entrepreneurship activity (TEA) of 33% and 38% respectively. South Africa's TEA lags behind at 9.2%. A developing country like South Africa is expected to have a TEA of about 13 % according to GEM (2015). This paints a bleak picture of the SMEs sectors' ability to contribute meaningfully to economic growth in South Africa. Singer, Amoros and Moska (2014:24) share the same sentiment that South Africa's TEA is low compared to its counterparts elsewhere on the continent. Moreover, the country's primitive phase pursuit is of entrepreneurial activity is small at 7%.

Musie (2015:9) has noted that an entrepreneur is the source of finding the acceptable measure of elements of production to build a community based economy that would employ the teeming population especially the youth. According to Mangontha (2013), an entrepreneur is someone who is able to spot a possibility and then devises an idea to succeed and make money. Renko (2013:1047) notes that entrepreneurial motivations often including fulfilment, wealth, personal development and independence. Wu (2017:12) notes that being a necessity versus an opportunity entrepreneur tend to be male, younger, wealthier, more proactive and optimistic. Behavioural intentions explain why people partake in entrepreneurial activities and others do not. Shangase (2016:2) posited entrepreneurs identify an opportunity, create and grow successful organisations.

Shangase (2016:2) highlights the fact that creating SMEs does not always mean they will grow and be successful. It is estimated that SMEs are accountable for around 60% of private employment and provide about 57% of South Africa's GDP (South African Reserve Bank 2016:19). When improving the social economic position in South Africa, it is key that SMEs flourish. Research has shown that the lack of finance, poor financial management skills, poor managerial and marketing skills are the principal cause for the high failure rates of SMEs (Karadag, 2015; Zondo and Thusi, 2016; Mamabolo, Kerrin and Kele, 2017).

2.1 Importance of SME

SMEs are vital for the growth of the economy as they are the engine of economic growth in most countries including South Africa (Apulu & Latham, 2010). SMEs play a major role in in the production of goods and services, reducing unemployment and improving competition and entrepreneurship. They contribute to the GDP of many countries and make possible higher standards of living (Samson, 2013).

2.2 Financial Literacy

Financial literacy is a key factor in improving access to financial services and plays an increasingly important role in financial well-being. The OECD has described financial literacy as a combination of financial awareness, knowledge, skills, attitude and the behaviour needed to make sound financial decisions. Financial literacy creates awareness in ordinary humans regarding financial products and services (RIB 2013). Human capital is associated with -business performance which is itself based on skilled employees and managers who should possess the financial literacy skills required to make money-related decisions (Ndiaye 2018, Olafsen and Cook 2018, Lewis and Lindley 2015).

According to Kalutunga (2019:3), financial literacy is necessary for entrepreneurs to assess their business's financial events and take decisions. It equips businesses with the skills required in new financial markets including managing risks maintaining financial reserves and managing insurance. Entebang and Eniola (2017:561) has identified financial literacy as a common challenge among SMEs and its absence has an effect on new businesses while Kalutunga (2019:3) believes it is the main reason for the failure of SMEs. For Ademola and Musa (2016:53), financial literacy is the degree to which an individual can interpret key financial concepts and their ability to manage finances through long-term planning and economic changes. Financial literacy can be further explained as the ways in which individuals manage their insurance, investments, savings and budgets. This involves knowledge and skills to manage finances like budgeting and managing the market properly to realise the business' objectives (Adomako 2016).

Lack of financial management skills is a major impediment to the growth of SMEs and limits their competitiveness compared to larger businesses. Internationally, financial literacy rates are lower among men in most countries (OECD and ASEAN 2017). The World Bank Global Development Report 2014 on financial inclusion found that SMEs in emerging economies face substantial financial management constraints that diminish their contributions to employment creation, growth and

innovation (Adomako 2016). The relationship between access to financial resources and business growth is more promising for those with high compared to low literacy.

Financial literacy does not only enable one to make decisions but also helps individuals respond competently to changes that affect their everyday financial wellbeing including events in the economy such as recession, rising unemployment and rapid inflation (Otieno 2016:2). Similarly, Samkin, Pitu and Low (2014:45) argue that financial literacy is not only important from an individual perspective, but also vital for society and social cohesion. In a financially literate society, individuals engage in a positive manner. The South African government established a full-fledged ministry of small business development in 2014 after realising the importance of growing small businesses in the economy (State Enterprise Development Agency 2016:2). One of the causes of the high failure rate of SMEs is the lack of key business skills including financial management knowledge (Mamabolo, Kerrin and Kele, 2017:3). According to Iramanin, Suryani, and Lindiawati (2017:284), financial literacy is the ability to read, analyse, manage and communicate the personal financial conditions that affect human and material wellbeing. This includes the ability to create financial options and to assess money and financial matters. In the context of SMEs, financial literacy is the ability to read and analyse monetary conditions. The bigger the ability of SMEs to purchase, the more advisable it is to invest. Atkin and Messy's 2012 study (cited in Yawson's 2018:7) states that financial literacy is important for individuals and investors because it affords them the opportunity to understand and master financial products and services. The low level of financial literacy of individuals is a crisis affecting the informal sector.

Financial literacy is not just about markets and investments, but also about economies, budgeting, financial planning, banking basics and most importantly about being 'financially smart'. Financial literacy is the understanding and practice of financial characteristics, which make it easier for people to make better financial decisions. Samkin, Pitu and Low (2014:47) for their part describe financial literacy as the ability to read and understand financial information, including profits, financial statements and cash flows.

Budgeting is a key aspect of trading and is required for the evaluation of managerial performance (Pietrzak 2014:27). Singh and Bendre (2017:259) highlight the importance of entrepreneurs being able to understand financial planning including preparing a budget. Financial literacy enables people to make educated decisions regarding budgeting, spending and saving (Ndou: 2016:25). According to Mungal and Garbharran (2014:12), three quarters of businesses do not plan for their expected cash inflows and outflows, which lessens their chances of survival and sustainability. Entrepreneurs make decisions about budgeting for non-current assets and how to increase non-current assets. Financial literacy includes the ability to comprehend monetary decisions including budget planning, accounting for bills and ensuring that debts are paid on time every month. The absence of budgeting financial literacy among SMEs greatly affects their performance negatively (Maziriri, Mapuranga and Madinga 2018:3).

Access to finance is one of the major challenges that the SME sector in South Africa faces. The growth of SMEs requires adequate supply of financial capital nevertheless; lack of finance is as a hindrance to such growth (Leboea 2017:71). Ngubane (2016:26) argues that finance in general is a

huge issue for SMEs. SMEs can finance business growth in many ways. The question is whether or not they should accept external equity finance returns for part ownership of the business. Most SMEs are not aware of the existence of other financial organisations capable of providing financial assistance for their businesses. This lack of knowledge means that most businesses struggle when they cannot access finance from financial institutions. Lekhanya (2016:30) argues that the institutional restrictions SMEs face include high borrowing costs which could lead to low entrepreneurial growth in a country like South Africa. The funding is important for the expansion of SMEs. SMEs generally depend on financing their businesses on their own and eventually resort to borrowing because of lack of funds (Mahohoma 2017:14).

Financial inclusion is defined as the process of ensuring access to financial services and enough credit when required by vulnerable groups such as weaker sections and low-income groups at an affordable cost. The aim of financial inclusion is to provide access to financial services to a large underprivileged population of the country (Iqbal and Sami 2017). Cossa, Madaleno and Mota (2018:911) highlight the financial security difficulties faced by people who are unprepared to make smart financial decisions. This demonstrates the need for greater financial literacy levels. Financial literacy significantly influences financial decision-making. According to Drexler, Fischer and Schoar (2014:1) entrepreneurs normally do not possess the skills to make difficult financial decisions. and according to Bendre and Singh, (2017:362) financial literacy generally refers to a group of expertise enabling managers to control money sensible.

Many countries including the United States, Australia, the UK, Portugal and New Zealand are involved in promoting financial literacies for SME sustainability. Governments and non-governmental organisations promote financial education programmes in schools as a means to instil financial behaviours that may persist into adulthood and ultimately SME owners or managers. Those who attend these programmes exhibit different financial behaviours, for example, with regard to the level of savings (Berry, Karlan and Pradhan 2017:911). According to Fatoki (2015:151), the financial literacy skills of SME managers are low. Kumar and Naidu (2017:12) suggest that the financial awareness of individuals can be determined by their financial planning, financial analysis and control accounting. It also includes their understanding of sources of income and business terminologies.

Karadag (2015:30) noted that key financial applications are working capital assets management conducted a study to establish the role of financial management challenges in small and medium sized enterprises. The study finds financial management practices that influence SME performance are working capital, management, fixed asset management, financial reporting and control practices. According to Eniola and Entebang (2017:571), each entrepreneur or SME manager needs to have a good level of financial literacy, and financial literacy can increase the company's performance. However, an entrepreneur's financial knowledge is not the only requirement for the success of a business. Dahmen and Rodgers (2014:1) conducted a study that focused on entrepreneurs facing financial difficulties hardly looking for financial information. One of the findings is that entrepreneurs that had financial difficulties avoided advice. This association confirms the strong relationship between financial literacy skills and business success. Erick (2016:12) also reveals a strong relationship between financial literacy and the financial performance of entrepreneurs. These studies

conclude that high levels of entrepreneurial financial literacy lead to considerable financial performance. Some entrepreneurs with low levels of financial literacy skills hire third parties to take care of the financial aspects of the business, and this increases costs. Entrepreneurs with high financial literacy skills fairly understand those aspects of their business and their skills make them confident that their business will continue to have financial successes and generate profits in the future (Samkin, Pitu and Low 2014:59).

2.3 Investment risk taking

According to Seethamraju and Diatha (2019:5175), small businesses should take advantage of digital payments and other digital technologies in order to save the time taken by banks to process transactions. Small businesses are also urged to have some form of business risk preparedness plan should adverse events occur. Risk management is an act of prevention or the efficient use of resources to mitigate risk. Insurance, for its part, helps the business to minimise financial losses (Setyawan, Isa, Wajdi and Syamsudin 2017:54). Financial risks are associated to the development of financial markets and utilise many financial instruments. According to Shuying and Mei (2014), financial risk is one of the key reasons why SMEs fail. The lack of proper financial structures is one of the causes of financial risk. SMEs rely heavily on debt financing hence their debt ratio is higher in the capital. Risk taking is a vital aspect of entrepreneurship. According to Wambungu et al. (2015), as the risk attitude of an entrepreneur improves, the higher the profitability of his or her entrepreneurial ventures.

3. METHODOLOGY

The study uses a scoping review method. Unlike other methods, the scoping review does not include or exclude studies based on their research designs. This approach enables a broad overview of all topics, concepts and methodologies employed in the domain of the study. The scoping review is used to provide an outline and synopsis of recent scholarship on financial literacy and SMEs (Arksey and O'malley 2005). Research into financial literacy and SMEs is growing. An increasing number of studies is published for example in the Google Scholar database. In 2015, 11 papers were recorded and this grew to 14 in 2016, 28 in 2017 and 141 in 2019. As at September 2019, there were 96 papers in the Google Scholar database.

The annual trend of published articles on financial literacy and SMEs shows steady increase from 2015 to a peak in 2017. The study reveals that the number of published articles on “financial literacy and SME” in Google scholar was 7 in 2015 and 14 in 2016. The figure further increased to 28 and 43 in 2017 and 2018 respectively. The scoping review method depends on the combination of literatures found from studies carried out to analyse the relationship linking financial literacy and SME success. In this study, the majority of articles reviewed focus primarily on South Africa with fewer articles from other countries. These studies show similar features of financial literacy skills and SMEs in economies across the globe. The majority of the publications were empirical studies.

In September 2019, the scoping review examined the relationship between financial literacy skills and SMEs. Scoping from 2015 to 2019 in Google Scholar and Nexus databases, the following keywords were used for the search: “Financial literacy” and “SMEs”. A total of 294 financial literacy and SME related studies were identified in Google scholar and Nexus as shown in Table 1 below.

Table 1

| Search Engine | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|----------------|------|------|------|------|------|-------|
| Google Scholar | 7 | 14 | 28 | 43 | 96 | 188 |
| Nexus Database | 4 | 20 | 15 | 22 | 45 | 106 |
| | 11 | 34 | 43 | 65 | 141 | 294 |

Articles associated with financial literacy and SMEs are carried out in the shape of similar examination looking at yearly issued articles in Google Scholar Nexus Databases search engines from 2015 to 2019. The results display 294 published articles in Google Scholar and Nexus databases with 106 papers in the Nexus database alone. The number of related articles published in 2016 in Google Scholar increased to 14. Similarly, papers on financial literacy and SMEs in the Nexus databases increased to 20 in 2016. The search for “financial literacy and SME” articles published in 2017 resulted in 28 articles in Google Scholar, and 15 in Nexus.

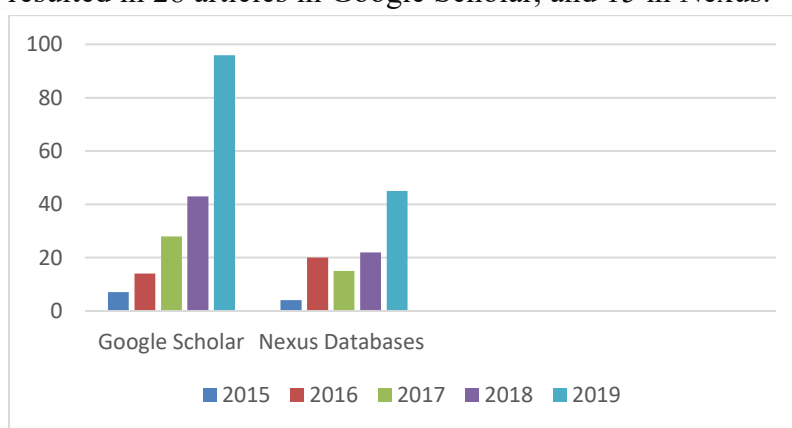


Figure 1: Trend of published articles on “Financial literacy and SME”. Source: Author’s design, 2019.

The study finds that more papers were published on financial literacy and SME between 2015 to 2018. Google Scholar contributed more than 63% of the articles in 2015, 2017, 2018 and 2019; in 2016 it was 41%. Altogether, papers available from 2015 to 2019 were 294 in Google Scholar and Nexus databases. The annual trend of published papers on “financial literacy and SME” shows further changes with 2015 having the least numbers and 2019 having the most. This indicates increases to 7 in 2015, 14 in 2016, 28 in 2017 and 43 in 2018. The amount of issued papers in 2018 was 141.

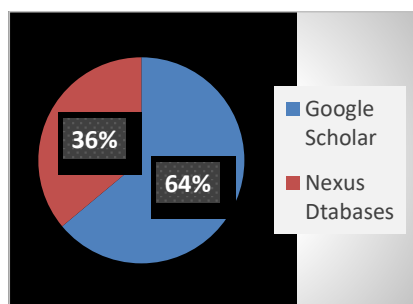


Figure 2: Gross published articles on financial literacy and SME in 2015 to 2019. Source: Authors design, 2019.

In total, there were 294 articles found in Google scholar and Nexus databases. This study concludes that 64% of the published articles on financial literacy and SME while 36% are found using the Nexus Database search engine.

4. DISCUSSION

Financial literacy is important to all economies and this is especially so for SMEs. For developed economies with greater availability of credit, consumers need to be financially literate in order to make the most favourable decisions. It was found that financial literacy presupposes the ability to read, analyse, manage and discuss financial issues that enhance the economic well-being of individuals. It ensures understanding and practices that make it easier for individuals to make better financial decisions. Financial education is a means of empowering individuals with financial literacy. Entrepreneurs should have basic financial knowledge so that they can manage their projects and resources and by using their skills, they should take advantage of available opportunities. Financial literacy makes entrepreneurs confident in the process of making savings decisions which allow them to deliver better financial management.

Financial literacy is important for both developed and emerging economies. However, we need to understand that the focus on financial literacy initiatives would differ with the economic profile of the target population. For developed economies, access to financial services is broad hence consumers need to be financially literate in order to make the most favourable decisions. Financial literacy means the ability to read, analyse, manage and discuss financial issues that facilitate the economic well-being of the individual. It involves understanding and practices which make it easier for individuals to make better financial decisions. Therefore, financial education should be considered as a long-term and repetitive process. Financial education is a means of empowering individuals with financial literacy. Entrepreneurs should have basic financial knowledge so that they can manage their projects, resources and by using their skills, they should take advantage of available opportunities of the environment. Financial literacy makes entrepreneurs confident in the process of making savings decisions, which allows them to perform better financial management.

5. CONCLUSION

The present study examines an important issue namely, financial literacy as a challenge confronting SMEs across the world. The substance of SMEs sector is known globally, irrespective of the economy size. Majority of the articles used in this study employed systematic and scoping review techniques to elaborate on the significance of financial literacy for SMEs. Issues relating to the performance of SMEs are dealt with in different ways in these articles and one of these is financial literacy in terms of its impacts on SME sustainability and their contributions to job creation and overall economic growth. The study reveals that training financial managers leads to better literacy levels. SMEs should be allowed an exemption period of zero taxation within the first 3 years of operations, as most SMEs are mostly likely to fail within this period. Mainstream financial institutions should support SMEs by developing products that can respond to the specific needs of SMEs.

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ANALYSING THE RELATIONSHIP BETWEEN INTEREST RATE AND ECONOMIC GROWTH: THE KEYNESIAN PERSPECTIVE IN SOUTH AFRICA

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ABSTRACT

In the real and money sector, the behaviours of real and nominal interests rate feature as an important endogenous variable. Using the Keynesian macroeconomic model, the study was conducted to analyse the relationship between interest rate and economic growth in South Africa from 1980 to 2020. Model estimation using simultaneous equations report that in South Africa, the real good sector (IS) is influenced negatively by household consumption and government expenditure, but investment has a positive effect. On the other hand, the money sector (LM) shows that interest rate has an insignificant and negative relationship with economic growth. At equilibrium, the IS-LM model indicates that interest rates and economic growth have a negative influence on each other. These results are in line with the Keynesian theory. When interest rate decreases, it stimulates investment in the real sector, and in the money sector it increases money supply. This then results in economic growth increasing in South Africa as stipulated by the demand driven Keynesian theory. Therefore, the study suggests that to stimulate and increase economic growth, interest rates should be decreased.

Keywords: interest rate, economic growth, simultaneous, macroeconomic, Keynesian

1. INTRODUCTION

Interest rate is defined as the cost of lending money, borrowing or it can be described as compensation on saving. In the real and money sector, the behaviour of real and nominal interest rate features as a vital endogenous variable. In the real sector, a change in the lending interest rate has a key impact on the country's investment and savings (Mushtaq & Siddiqui, 2016). When the interest rate increases, it encourages savings by households, which then stimulates economic growth as stated by the Keynesian theory. Equally so, when the lending interest rate increases, it discourages lending of money causing private demand of money to be less (Jordan, 2013).

In the monetary sector, when an individual saves or invests, these funds are channelled through financial institutions to earn interest. Therefore, financial institutions and markets are essential because it is where real and nominal interest rates are determined (Fourie & Burger, 2009). In South Africa, the South African Reserve Bank (SARB) determines the changes in the repurchase rate, which, in return, influences the lending rate. According to Matemilola, Bany-Ariffin and Muhtar (2015), when the repo rate increases, it discourages aggregate demand and this curbs inflation in the

economy. However, when the repo rate decreases, aggregate demand is encouraged. The changes in the interest rate and economic growth continue until the economy reaches equilibrium.

The lending interest rate in South Africa decreased from 15.5 percent in 1994 to 7.7 percent in 2020 (World Bank, 2021). Although the lending interest rate has been declining in South Africa, it has not been complimented by an increase in economic growth as the Keynesian theory suggests. South Africa as an emerging economy continues to be constrained by its low potential growth. In 1994, the annual economic growth rate of South Africa was 3.3 percent of the GDP. In the period between 2008 and 2009, economic growth averaged negatively because of the global economic crisis (Bhorat *et al*, 2014). Since the economic crises, South African economic growth has been growing below 3 per cent. Economic growth is an important ingredient for developing or less developed countries seeking to achieve economic development at the income equilibrium level (Shaukat *et al*, 2019).

According to the demand-driven closed macroeconomic model by Keynes, the necessary ingredients for sustaining accelerated economic growth are consumption by households, investment by firms and government spending. However, the interest rate set by financial institutions has an influence on the extent to which interest rate affects these variables. In South Africa, household consumption is the largest share contributor to the economic growth of South Africa (Jordaan, 2013). In 1994, household consumption averaged at 62.7 percent and it decreased to 59.9 percent in 2020 (SARB, 2020). According to IDC (2013), household expenditure contributed 74.8 percent, while investment expenditure contributed 29.3 percent and government expenditure 18.2 percent to economic growth over the period 1994 to 2012.

In the period thereafter, domestic demand declined by 0.3 percent in 2015 (IDC, 2016). Fixed capital formation in South Africa has decreased from 8.2 percent in 1994 to -1.4 percent in 2018 (SARB, 2020). The shortfall in total investment has encouraged the South African economy to have an investment drive of \$100bn to stimulate economic growth (Mongale & Baloyi, 2019). With regard to government spending, Murphy and Walsh (2020) state that the rise in government expenditure results in an increase of interest rate to curb the crowding out of investment, which then leads to a reduction in output growth. When government spending is restrained by a high interest rate, it delays household consumption and investment by firms. The national government spending as a percentage of the GDP averaged between 26.7 and 29.9 in 1994 to 2018 (SARB, 2020).

This study is conducted to determine the interest rate effect on economic growth in South Africa making use of the Keynesian macroeconomic model. This study makes use of simultaneous equation modelling to estimate the demand-driven model of Keynes. The rest of the paper is structured as follows: Section 2 provides a brief overview of interest rate and economic growth in South Africa. Section 3 reviews the theoretical literature of Keynes, while section 4 reviews empirical literature. Section 5 provides the model specification of the study, while section 6 presents the analyses of results. Section 7 concludes the study.

2. BRIEF OVERVIEW OF INTEREST RATE AND ECONOMIC GROWTH IN SOUTH AFRICA.

South Africa's lending interest rate has been on a declining trend from 1998 to 2019. This was because of the lowered repo rate since 1998 (Van Der Byl, n.d.). In 1998, the lending rate declined from an average of 21 percent to 13 percent in 2001. In 2002, the lending rate slightly increased to 15 percent; however, in the period from 2003 to 2005, there was a steady decline from 14 percent to 10 percent (World Bank, 2020). Despite the decline, a substantial increase in the lending rate was realised from 2006 to 2008 with an average of 11 percent to 15 percent. The period thereafter there was a continual decrease in the lending rate.

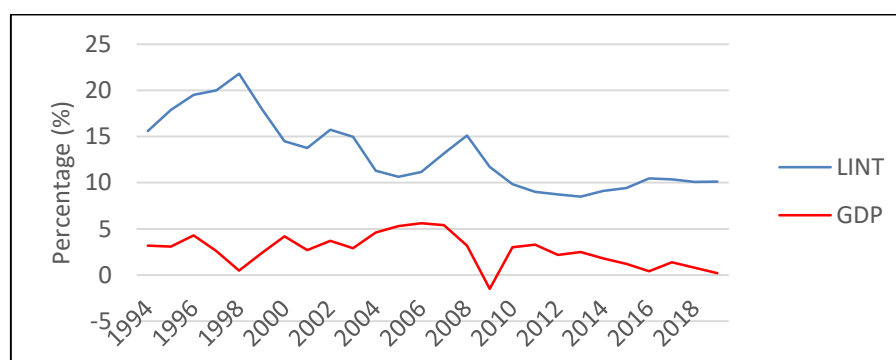


Figure 1: Lending Interest rate and Economic Growth in South Africa

Source: Own computation using data from South African Reserve Bank and World Bank (2020)

On annual terms, the GDP growth rate in South Africa averaged 3.2 percent in 1994. In the period between 1994 and 2004, the GDP growth rate grew by an average of 3 percent (SARB, 2020). Thereafter, in the period between 2005 and 2007, the economy grew by an average of 5 percent before declining to -1.5 percent in 2009. However, a steady recovery in the GDP was realised between 2010 and 2011, where the economy grew and averaged around 3 percent. In the period thereafter, from 2012, the economy was under considerable strain, with evidence of annual growth averaging below 3 percent (SARB, 2020). Overall, Figure 1 indicates a that there is a noticeable negative relationship between lending interest rate and economic growth in South Africa.

3. THEORETICAL AND EMPIRICAL LITERATURE

To determine the interest rate effect on economic growth in South Africa, this study makes use of the traditional Keynesian macroeconomic model. The detailed Keynesian macroeconomic model adopted by the study is provided below in 3.1.

3.1 The principle of aggregate demand in the Keynesian economy

Keynes (1936) proposed the Keynesian macroeconomic model to explain how income is determined in the economy. Keynes derived the economy from the aggregate demand side, and in the short run, the model focused on real and monetary sectors, where the investment-saving and liquidity

preference-money supply model (IS/LM) was born. The real good sector is represented by the IS curve while the monetary sector is represented by the LM curve.

3.1.1 Real goods sector and interest rate

In a two-sector model, Keynes determined that the level of national income (Y) is dependent on aggregate spending by household consumption and investment by firms shown in equation (1).

$$Y = C + I \quad (1)$$

In the real goods sector market (IS curve), the consumption function (C) is given in equation (2) as:

$$C = C_0 + cY_d \quad (2)$$

Where consumption independent of income is C_0 , induced consumption dependent on disposable income is cY_d and c is the marginal propensity to consume (mpc). According to Keynes, the level of income not consumed by households in the economy becomes saved. The savings function is indicated in equation (3):

$$S = -C_0 + (1 - c)Y \quad (3)$$

Where savings is S , $-C_0$ represents dissaving, Y represents both disposable and national income and $(1 - c)$ represents the marginal propensity to save (mps). The level of investment (I) made by firms in the economy is provided by equation (4)

$$I = I_0 - S_r \quad (4)$$

Where investment independent of income is I_0 and S_r represents sensitivity of investment to changes in real interest rate. Captured by S_r is the assumption that when real interest rate is high then the level of investment by firms is discouraged. Real interest rate is equal to

$$r = i - \tau \quad (5)$$

Spending by government is independent of income in equation (6)

$$G = G_0 \quad (6)$$

The national income in the real goods sector model comprising of three sectors is derived as follows: Consumption spending indicated by equation (2), investment spending given by equation (4) and government spending in equation (6) are combined into one equation to derive the IS curve depicted in equation (7).

$$Y = C + I + G \quad (7)$$

3.1.2 Monetary sector and interest rate

The money sector (LM curve) consists of money demand and money supply. Mathematically, the equation for real money demand and real money supply is given in equations (8) and (9) as:

$$M_d = Ry - fi \quad (8)$$

$$M_s = R_w - li \quad (9)$$

Here, real money demand is represented by M_d , the parameter R captures the responsiveness of real money demand and real money supply to fluctuations in income and the parameter f represents the responsiveness of changes in nominal interest rate. In the money supply M_s equation, values that capture the responsiveness of changes in nominal interest rate are indicated by l .

$$M_d = M_s \quad (10)$$

Equation (10) indicates real money demand M_d and real money supply M_s at equilibrium in the money sector (LM curve).

3.1.3 Simultaneous equilibrium of real and monetary sector

Equilibrium in the real and monetary sector is reached where the IS and LM curves intersect at interest rate (r^*) and national income (Y^*).

EMPIRICAL LITERATURE

The empirical literature relating to interest rate and economic growth is reviewed below:

With the aid of annual data covering the period 1960 to 2010, Ridzuan *et al.* (2014) applied the ARDL method to examine the linkage between household consumption, domestic investment, government expenditure and economic growth in Malaysia. The findings indicate that there is a long-run relationship between the variables of interest. The results found indicate that the accelerator of economic growth is household consumption followed by domestic investment then government expenditure.

Mushtaq and Siddiqui (2016) employed the random effect and the system generalised method of moments to analyse the effect that interest rate has on economic growth performance from 17 Islam and 17 non-Islam countries. The results found suggest that Muslim countries increase investment and trade by lowering the lending interest rate and inflation to accomplish savings and economic growth. The non-Muslim countries should also lower interest rates to improve investment and increase trade.

Nach (2016) analysed the determinants of economic growth using the Keynesian macroeconomic model in South Africa. Quarterly data covering the period 2004Q1 to 2014Q4, taken from the South African Reserve Bank, was utilised. The applied ordinary least squares findings provide evidence that economic growth has a positive relationship with consumption, investment, government spending and net export. Nach (2016) recommends that South Africa should attract investment into the economy.

Etale and Ayunku (2016) applied the Johansen cointegration and error correction model to study the relationship between interest rate and economic growth from 1985 to 2014 in Nigeria. The variables under study were interest rate, inflation, economic growth and exchange rate. The results found indicate that, in the long run, the variables of interest move together; however, in the short run, the findings suggest that, in the short run, there is a negative relationship between interest rates and economic growth. A quasi experimental study, investigating the effect of interest rate and economic growth in Swaziland was conducted by Salami (2018). The findings indicate that deposit interest rate has a negative effect on economic growth.

Shaukat *et al.* (2019) investigated the relationship between real interest rate and economic growth for 38 developing economies for the period 1996 to 2015 using the panel dynamic Generalised Method of Moments. From the results found, the study concludes that developing nations can achieve a high economic growth rate by lowering the interest rate.

Njie & Badjie (2021) analysed the relationship between interest rate and economic growth in Gambia using annual time series data from 1993 to 2017. The results found suggest that interest rate and economic growth move together in the long run however in the short run the two variables have no effect on each other. The study recommends that government must avoid unnecessary expenditures to reduce interest rates in the Gambian economy.

From the above reviewed literature, different econometric methods, different data ranges and different countries were employed. However, simultaneous equation modelling was not employed to analyse the relationship between interest rate and economic growth. As such, this study makes use of simultaneous equation modelling to analyse the relationship between interest rate and economic growth in South Africa.

4. SIMULTANEOUS MODEL SPECIFICATION

The Keynesian general theory of interest rate at equilibrium is adopted to form the model of this study. To analyse the relationship between interest rate and economic growth, the Keynesian simultaneous equilibrium model of r_t^* and Y_t^* is derived in equation (11) and (12) as:

$$r_t^* = \beta_0 + \beta_1 HC_t + \beta_2 I_t + \beta_3 G_t + \beta_4 MS_t + \beta_5 Y_t + \mu_t \quad (11)$$

$$Y_t^* = \beta_0 + \beta_1 HC_t + \beta_2 I_t + \beta_3 G_t + \beta_4 MS_t + \beta_5 r_t + \mu_t \quad (12)$$

Where: r_t indicates interest rate, HC_t is household consumption, I_t is investment, G_t is government expenditure, Y_t is economic growth and MS_t is money supply. The coefficients of the respective variables are shown by $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ while μ_t represents the error term.

4.1 Data description

Annual time series data covering the period from 1980 to 2020 is employed to estimate equation (7, 10, 11 and 12). Table 2 provides the details of the variables, measurement of variables, the variables' description, and the database where the variables were sourced.

Table 2: Data description and Source

| Variable | Unit | Description | Source |
|----------------------------|------|---|------------|
| Interest rate (r) | % | Lending interest rate | World Bank |
| Household consumption (HC) | % | Ratio of final consumption expenditure by households to GDP | SARB |
| Investment (I) | % | Gross fixed capital formation (investment) | SARB |
| Economic growth (Y) | % | Gross domestic product at market prices | SARB |
| Government expenditure (G) | % | National government expenditure as percentage of GDP | SARB |
| Money supply (M_s) | % | Monetary aggregates / Money supply: M3 | SARB |

5. ANALYSES OF RESULTS

5.1 Unit root test

Before analysing the specified Keynesian model, the variables are de-trended to investigate the presence of stationarity and order of integration at levels and first difference. The Dickey-Fuller generalised least squares unit root test proposed by Elliot, Rothenberg and Stock (1996) is employed because it expands on the efficiency and power of the augmented Dickey-Fuller test. The DF-GLS test equation is given below as:

$$\Delta y_t^d = (k - 1)y_{t-1}^d + \sum_{j=1}^p \varphi_j \Delta y_{t-1}^d + \varepsilon_t \quad (12)$$

Here y_{t-1}^d is the de-trended series, p is the lag length of the ADF test and $(k - 1)$ represents the augmented Dickey-Fuller regression employing the detrended series y_{t-1}^d . The DF-GLS results reported in Table 3 indicate that some variables such as money supply (M3) and economic growth (Y) are stationary at levels $I(0)$, while other variables, being interest rate (r), household consumption (HC), government expenditure (G) and investment (I) become stationary at order $I(1)$ after first difference is applied.

Table 3: DF-GLS test at level and first difference

| Variables | Level | | First difference | |
|----------------------------|------------|------------|------------------|------------|
| | Intercept | Trend | Intercept | Trend |
| Interest rate (r) | -1.406328 | -2.963690 | -3.920518* | -4.894463* |
| Household consumption (HC) | -1.122623 | -1.685736 | -1.709048* | -4.402404* |
| Government expenditure (G) | 1.381678 | -0.968543 | -4.945915* | -5.009760* |
| Investment (I) | -2.416343* | -2.862913 | -4.737212* | -5.596259* |
| Money supply (M3) | -2.373230* | -4.664868* | - | - |
| Economic growth (Y) | -2.551916* | -2.994385* | - | - |

Note: 10% () represents the level of significance respectively*

To analyse the Keynesian model, the study employs a two-stage least square regression analysis to determine equations (7), (10), (11) and (12) to determine the simultaneous equilibrium of the IS/LM model in South Africa.

Table 4: Two-stage least squares *Y* estimation (IS curve)

| Variable | Coefficient | Std. error | t-Statistic | Prob. |
|-----------|-------------|--------------------|-------------|--------|
| HC | -0.017415 | 0.095932 | -0.181536 | 0.8569 |
| I | 0.228315 | 0.032360 | 7.055443 | 0.0000 |
| G | -0.230501 | 0.094488 | -2.439482 | 0.0196 |
| C | 8.613942 | 5.488624 | 1.569417 | 0.1251 |
| R-squared | 0.694316 | Adjusted R-squared | 0.669530 | |

The IS curve findings in Table 4 reveal that household consumption and government expenditure have a negative relationship with economic growth, while investment has a positive relationship with economic growth. A one percent increase in household consumption and government spending will cause economic growth to decline by 1 and 23 percent. These findings are not consistent with the Keynesian theory, which states that when household consumption and the government spending increase, economic growth increases. However, a one percent increase in investment results in economic growth increasing by 22 percent. This suggests that to stimulate economic growth in the short run, investment by firms needs to increase in South Africa.

Table 5: Two-stage least squares *Y* estimation (LM curve)

| Variable | Coefficient | Std. error | t-Statistic | Prob. |
|-----------|-------------|--------------------|-------------|--------|
| r | -0.163945 | 0.084029 | -1.951053 | 0.0585 |
| M3 | 0.267721 | 0.060470 | 4.427357 | 0.0001 |
| C | 0.859957 | 1.257522 | 0.683850 | 0.4982 |
| R-squared | 0.343539 | Adjusted R-squared | 0.308989 | |

The results of the LM curve in Table 5 suggest that money supply is a significant variable in explaining the behaviour of economic growth in the money sector. Interest rate has a negative relationship with economic growth, while money supply has a positive relationship. A one percent increase in interest rate decreases economic growth by 16 percent. A one percent increase in money supply positively increases economic growth by 26 percent. This finding implies that to increase economic growth in the South African economy, the South African Reserve Bank should apply an

expansionary monetary policy in the economy. In other words, the Reserve Bank must lower interest rates to stimulate supply of money in the economy.

Table 6: Two-stage least squares r^* equilibrium estimation (IS/LM)

| Variable | Coefficient | Std. error | t-Statistic | Prob. |
|-----------|-------------|--------------------|-------------|--------|
| HC | 0.628722 | 0.205044 | 3.066278 | 0.0042 |
| I | -0.108223 | 0.111697 | -0.968895 | 0.3392 |
| G | -1.021650 | 0.238846 | -4.277435 | 0.0001 |
| M3 | 0.238627 | 0.116242 | 2.052843 | 0.0476 |
| Y | -0.699231 | 0.348822 | -2.004552 | 0.0528 |
| C | 2.063528 | 13.27991 | 0.155387 | 0.8774 |
| R-squared | 0.525245 | Adjusted R-squared | 0.457423 | |

At equilibrium (IS/LM), the results indicate that there is a negative and significant relationship between interest rate and economic growth as shown by Table 6. This finding suggests that a one percent increase in economic growth will approximately decrease the interest rate by 69 percent. These results are consistent with the ones found in Table 7. A one percent increase in interest rate decreases economic growth by 14 percent in the economy. These results suggest that a higher interest rate is associated with a lower economic growth. This is in line with economic theory, when interest rate increases it discourages the expenditure activity in the economy and that decreases economic growth in the South African economy.

Table 7: Two Stage Least Squares Y^* equilibrium estimation (IS/LM)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|-----------|-------------|--------------------|-------------|--------|
| HC | 0.074905 | 0.105234 | 0.711789 | 0.4813 |
| I | 0.191823 | 0.040584 | 4.726525 | 0.0000 |
| G | -0.365596 | 0.120327 | -3.038346 | 0.0045 |
| M3 | 0.025379 | 0.056306 | 0.450724 | 0.6550 |
| r | -0.147281 | 0.073473 | -2.004552 | 0.0528 |
| C | 8.496753 | 5.925307 | 1.433977 | 0.1605 |
| R-squared | 0.726089 | Adjusted R-squared | 0.686959 | |

6. CONCLUSION

This study was conducted to determine the interest rate effect on economic growth in South Africa from 1980 to 2020 using the Keynesian macroeconomic model. The simultaneous equation estimates report that in South Africa, the real good sector (IS curve) is influenced negatively by household

consumption and government expenditure but investment has a positive effect. The money sector (LM curve) shows that there is a negative and insignificant relationship between interest rate and economic growth. At equilibrium, the IS-LM model indicates that interest rates and economic growth have a negative influence on each other. These results are in line with the Keynesian theory. When interest rate decreases, it stimulates investment in the real sector and in the money sector it increases money supply. In conclusion, the study recommends that to increase economic growth in South Africa, lending interest rate should be reduced to encourage domestic expenditure especially for households since they are the ones who are the consumers in the South African economy.

7. REFERENCES

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AUDIT PRICE AND AUDIT QUALITY OF NIGERIAN LISTED NON-FINANCIAL FIRMS

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ABSTRACT

Based on the agency theory, the auditors are expected to provide an unbiased opinion to the shareholders on the financial statement examined by them at a price. Following the global financial scandal, the stakeholders are sceptical of the auditors' independence and the quality of the audit as auditors are accused of receiving abnormal audit price. According to economic bonding and productive effect theory, the abnormal audit price affects the auditor's effort or opinion. There is a plethora of studies on normal audit fee and audit quality, but the association between abnormal audit and audit quality is still at the initial stage in the Nigerian environment. Hence, the study examined the effect of the abnormal audit on audit quality in the Nigerian listed non-financial sector. The study uses a longitudinal research design and a sample of 50 firms is selected over 2011-2019, resulting in 450 firm-year observations. A two-stage sampling technique is employed to ensure that all categories of the non-financial sector are proportionately represented. The secondary data collected from the audit financial report is analysed using ordinary least square. The result shows that normal audit price has a positive significant association with audit quality and the positive abnormal audit price has a negative but insignificant relationship with audit quality while the excessive audit fee discounting has a positive but insignificant relationship with audit quality. The study, in line with the productive effort theory, concludes that auditors increase effort with an increase in normal audit fee, while excess audit premium and discounting do not compromise auditors' independence and objectivity.

Keywords: Audit Quality, Abnormal Audit Fee, Auditors Independence, Agency Theory and Economic Bonding Theory

1. INTRODUCTION

The external auditors owe a statutory duty to provide the investors' confidence in the financial statement by expressing an unbiased opinion in the form of a financial report. The situation is not different in Nigeria as the Company and Allied Matter Act of 2004 (CAMA) states that every listed company must carry out a statutory audit every year. However, the quality of the mandatory statutory audit and auditors' independence has been questioned in recent times. The auditors, especially the big audit firms, are accused of charging abnormal audit prices (e.g., Choi et al., 2010; Kinney & Libby, 2002). This makes other stakeholders apprehensive and sceptical of the audited financial report in making informed economic decisions. Simunic (1980) posits that the audit price depends on the client's profitability, complexity, audit risk engagement, and audit firm characteristic. Most of the subsisting audit fee literature anchors on the Simunic model (e.g., Matozza et al. 2020; Nugroho & Fitriany, 2019; Krauß et al., 2015).

Earlier studies on audit fee-quality (e.g., Frankel et al. 2002; Larcker & Richardson, 2004) have shown that audit fee positively affects the audit quality. However, following the corporate financial scam involving Enron and her statutory auditor Arthur Anderson, Kinney and Libby (2002), the audit fee charged by Anderson is 250% above the expected price. The researchers conclude that the excessive audit fee creates an economic bonding between the auditor and its client. Hence, the auditor allows Enron's management to engage in opportunistic behaviour and the auditor's independence was impaired. Studies (Choi et al., 2010; Eshleman & Guo 2014) show that the abnormal components, the excessive audit premium or discounting, affects the audit quality, but the study is at the nascent stage (Fitriany et al., 2016; Krauß, et al. 2015; Sudaryono, 2017; Zhang, 2017). While studies (e.g., Choi et al., 2010; Kinney & Libby, 2002; Krauß, et al., 2015) show that excessive premium is likened to a bribe allowing the firms to engage in earnings management, conversely, studies (e.g, Alhadab, 2017; Eshleman & Guo 2014) are of the view that excessive audit premium leads to increasing audit procedures and invariably higher audit quality. For excessive audit fee discounting, the results of studies still show a divergent view. For instance, Alhadab (2017) and Eshleman & Guo (2014) show that underpayment of audit fee impairs audit quality, based on the fact that auditors' efforts and procedures are significantly reduced to guarantee a fair portion of the fee as profit. Other the other hand, Choi et al. (2010) and Krauß et al. (2015) assert that it does not impair audit quality, especially when the audit market is competitive.

Nigeria has several financial scandals (e.g., Cadbury, Lever brothers) involving reputable audit firms with international coverage. Despite this, most audit literature in Nigeria assumes audit quality is directly associated with the audit size or type (e.g., Oladipupo & Monye- Emina, 2016; Onaolapo et al., 2017). The study contributes to knowledge by adding to the limited empirical studies (see, Ogujiofor, Anichebe & Ozuomba, 2017; Oladipupo & Monye-Emina, 2016) on abnormal audit fee-audit quality. The studies also contribute by measuring audit quality using the inverse of discretionary

accrual and real earnings management which is rarely used in Nigeria but consistent with recent studies (e.g., Alhadab, 2017; Matozza et al. 2020; Nugroho & Fitriany, 2019) on audit fee and quality. Secondly, we explicitly state the audit price model and include 14 explanatory variables to reduce the possibility of inaccurate measurement of the abnormal audit fee as it is represented by the residual term of the audit price model. The study is the first in Nigeria to test the effect of auditor's effort, client's bargaining, and economic bonding on audit quality by decomposing the actual audit fee into normal, excessive audit premium or discounting. To ensure that there is fairness to the topical issue, the study selects the listed non-financial institution in the Nigerian Stock Exchange (NSE). The audit market of the non-financial institution is fairly distributed between the Big Four (these are the four largest auditors globally, comprising Deloitte, Ernst & Young (EY), Klynveld Peat Marwick Goerdele (KPMG) and PricewaterhouseCoopers (PwC) and the non-Big Four (see; Urhoghide & Izedonmi, 2015). Also, numerous audit firms operate in the atomistic segment of the Nigerian audit market, known as the non-Big Four, offering an audit fee discount to survive in the market. In reality, abnormal audit fee subsists in the Nigerian audit market but there is limited empirical evidence (Ogujiofor, Anichebe & Ozuomba, 2017; Oladipupo & Monye-Emina, 2016) in the subject matter as most recent studies still examine audit fee-quality relationships (e.g., Ilechukwu, 2017; Ibrahim, & Ali, 2018; Onaolapo et al., 2017) taking cognisance of the abnormal components of the audit fee.

To ascertain the audit fee-quality association, data were obtained from audited financial statements of 50 listed non-financial firms on the Nigerian Stock Exchange (NSE) over 2011-2019, resulting in 450 firm-year observations. The abnormal audit fee-quality model is estimated using ordinary least square. The study concludes that there is a significant positive relationship between audit price and quality. However, the positive abnormal audit fee has an insignificant negative relationship indicating that excessive audit premiums do not impair auditor's independence and objectivity. Also, there is an insignificant positive relationship between audit fee discounting and audit quality, signifying that auditor effort or procedures are not significantly reduced as a result of excessive audit price discounting. The rest of the paper is organised into sections. Section two discusses the literature review and hypothesis development, section three covers the research design and model specification. Section four is a discussion of findings, while the final section five, shows the summary, conclusion and limitations of the study.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The financial report auditing quality is the combined effort of the audit firm and its client (Gibbins et al., 2001; Zhang, 2017). Also, Antle and Naleboff (1991) report that the quality of financial reporting audits depends on the negotiation strategy between the auditor and the clients. Naturally, in the process of negotiation of audit service engagement, the client has bargaining power over the auditor. The client's negotiating power arises from the fact that the management employs and dismisses the auditor from any form of audit engagement (Dontoh et al., 2004; Gavius, 2007; Nugroho & Fitriany, 2019). To buttress this fact, Casterella et al., (2004) assert that management impairs auditor's independence and objectivity using economic bonding or bargaining power in the process of audit price negotiation.

Audit price is a reflection of the cost of audit service and a fair portion of profit (Ilaboya et al., 2017; Simunic, 1980). Hence, the early audit literature (e.g., Antle et al., 2006; Frankel et al., 2002; Larcker & Richardson, 2004) view total audit fee as a reflection of auditor's effort and invariably, conclude that total audit fee is positively related to audit quality. Conversely, Choi et al., (2010) claim that audit price does not necessarily enhance audit quality, as it can possess abnormal components which might impair the auditor's independence and objectivity. In their analysis, Choi et al., (2010) decompose the total audit fee into normal and abnormal audit fees. A normal audit fee arises as a result of the auditor's effort required in the audit engagement. The auditor's effort depends on the client's size, complexity, and the auditor's potential risk which is also supported by studies (Onaolapo et al., 2017; Simunic, 1980). The abnormal audit fee is an unobservable component of the total audit fee arising as a result of client bargaining power or economic bonding (Choi et al., 2010; Eshleman & Guo 2014; Kinney & Libby, 2002). Choi et al., (2010) define an abnormal audit fee as the difference between the total audit fee and the expected audit fee. Studies (Jung et al., 2016; Matozza et al. 2020) further split the abnormal audit fee component into (i) the audit premium and (ii) audit fee discounting.

The audit premium is the excess of audit price over the expected audit fee (Alhadab, 2017; Choi et al., 2010; Krauß et al., 2015; Oladipupo & Monye- Emina, 2016). The economic theory posits that an auditor's independence and objectivity can be impaired when there is an economic tie, in the form of excessive audit price between the auditor and its client. The positive abnormal audit fee may induce the auditor to compromise audit quality, by allowing the management to engage in opportunistic behaviour, especially when the economic rent exceeds the potential cost of litigation and reputational damage of the auditor (DeAngelo, 1981; Chung & Kallapur, 2003; Kinney & Libby, 2002). Conversely, the productive theory views excessive audit premium as a motivation to increase audit process, procedure, and effort. The productive effort theory holds the view that auditors charge premium audit fees when the environment is volatile (Eshleman & Guo, 2014) and there is a need for a more substantive test to be carried out by the auditor (Blankley et al., 2012). There are also empirical studies (e.g., Blankley et al., 2012; Higgs & Skantz 2006) that support the productive theory view in respect of the relationship of positive abnormal audit fee and audit quality. Based on the aforementioned, we posit that there is a relationship between positive audit price and quality which could either be positive or negative.

H₁; There is an association between positive abnormal audit fees and audit quality.

The second component of the abnormal audit fee is audit fee discounting, also known as negative audit price. The audit fee discounting arises when the auditor charges a price below the normal audit fee; hence it is the shortfall arising from the difference between total audit fee and normal audit fee (Alhadab 2017; Choi et al., 2010; Krauß et al., 2015, Matozza et al. 2020). The negative abnormal audit fee indicates the client's superiority in the process of audit price bargaining over the auditor (Antle & Naleboff, 1991). Choi et al., (2010) and Kinney and Libby (2002) report that audit price discounting motivates auditors to increase audit quality, as there is an absence of economic bonds capable of compromising auditor independence and objectivity. Studies (Asthana & Boone, 2012;

Hoitash et al. 2007) also empirically support Choi et al. (2010) view of a positive relationship between audit fee discounting and audit quality. Conversely, the productive theory posits that the auditor has a likelihood to reduce audit process and procedure, to reduce the cost of audit service and invariably make a fair profit (Zhang, 2017) Hence, negative audit fees can also lead to lower audit quality. Empirical studies (Bockwoldt, 2010; Turner 2005) also support the productive theory in respect of audit underpayment and audit quality. Base on the divergent view of the client bargaining hypothesis and productive effort theory on negative abnormal audit fee, we posit that audit fee discounting affects audit quality positively or negatively. Hence;

H₂; There is an association between audit fee discounting and audit quality.

The normal audit fee is positively related to audit quality (Mitra et al. 2009), it is assumed that there is a positive association between normal audit fees and audit quality.

H₃; There is a positive association between normal audit fees and audit quality

3. METHODOLOGY

Research Design and Sample Selection

The study employs a longitudinal research design selecting 50 listed non-financial firms repeatedly from 2011-2019. We adopt a two-stage sampling technique. In the first stage, a stratified sampling technique is adopted to ensure that all categories of listed non-financial firms are proportionately represented. In the second stage, we employ simple random sampling to ensure that every firm, within a stratum has an equal likelihood of being selected. Also, the study ensures that balanced panel data is employed by selecting firms whose stocks are actively traded on Nigerian Stock Exchange (NSE) and have issued an audited financial statement over the period resulting in 450 firm-year observations. The study focuses on the non-financial institution based on the fact that the audit market is competitive in nature and fairly distributed between the Big Four and the non-Big Four audit firms (Urhoghide & Izedonmi, 2015). This increases the possibility of having a fair distribution of economic ties and client bargaining power, unlike the financial institution whose audit market is oligopolistic in nature and well dominated by the Big Four (see Ayoola et al., 2019) leading to a skewed distribution of having audit fee premium.

Model Specification

To ascertain the association between audit price and audit quality, we specify models for (i) audit price (ii) audit quality, and (iii) audit price quality.

Audit Price Model

In order to validate the three Hypotheses postulated for the study, we develop the audit price model to arrive at abnormal audit fee and appropriately decomposed the abnormal audit fee into positive and negative abnormal audit fee consistent with the recent literature (Jung, et al., 2016; Matozza et al., 2020; Sudaryono, 2017). The audit price model is stated as;

$$LNAF_{it} = \beta_0 + \beta_1 LNTA_{it} + \beta_2 SEG_{it} + \beta_3 INVREC_{it} + \beta_4 FOREIGN_{it} + \beta_5 LAGLOSS_{it} + \beta_6 LEV_{it} + \beta_7 Z SCORE_{it} + \beta_8 IFRS_{it} + \beta_9 ROA_{it} + \beta_{10} BUSY_{it} + \beta_{11} BIG 4_{it} + \beta_{12} REPORTLAG_{it} + \beta_{13} AUD_TEN_{it} + \beta_{14} INITIAL_{it} + e_{it} \quad (1)$$

The audit fee model captures auditors' efforts concerning the drivers of client size, client complexity, auditors' risk. The three composite factors are disintegrated into 14 explanatory variables consistent with studies (e.g. Choi et al., 2010; Eshleman & Guo 2014; Krauß et al., 2015; Simunic 1980) but modified to suit the Nigerian environment. The audit fee model in Eqn (1) is set up to ensure that the abnormal audit fee is appropriately measured by the stochastic term (e_{it}) in the audit price model. In Eqn (1) LNAF represents the natural logarithm of the audit fee. LNTA represents the natural logarithms of total assets, SEG connotes the number of business segments operated by a client. INVREC is the sum of inventories and receivables scaled down by total assets. FOREIGN represents a dichotomous variable of one of the listed firms that have at least a foreign branch and zero otherwise. LAGLOSS is a binary code variable of one provided the firm suffers a loss in the previous year and zero otherwise. LEV represents the ratio of debt to total asset, ZScore connotes financial distress. IFRS represents 1 if adopted by the company and 0 otherwise. ROA is the return on assets measured by profit after tax divided by total assets. BUSY represents the Busy accounting period which is an attributable variable with a value of one provided the year-end of the firm is 31st December, and zero otherwise. The Big Four is an auditor's type, with a value of one if audited by the Big Four and zero other. The reporting lag coded as REPORTLAG is the difference in days between the date of fiscal year-end and the date of the audit report. AUD_TEN represents the successive year of a particular auditor's tenure and *INITIAL* measure the first-year engagement mandate of the auditor and the e_{it} connote the error term of the model which is invariably the abnormal audit fee. The panel Ordinary Least Square (OLS) method is used to estimate Equation 1 and the consequence error term e_{it} represents the abnormal audit fee, which is the primary variable of interest to validate our three proposed hypotheses. For the brevity purpose, the result of the regression is not shown in the study, as it is used to derive the values for economic bonding, client's bargaining power, and normal audit fee which are embedded in the total audit fee.

Audit Quality

Audit quality is assumed to be unobservable (Asthana & Boone, 2012). The study measures audit quality with the residual term of the earning quality model developed by Ball and Shivakumar (2006), as shown in Equation 2. The model is given as:

$$\frac{tacc_{it}}{ta_{it-1}} = \beta_0 + \beta_1 \left(\frac{1}{ta_{it-1}} \right) + \beta_2 \left(\frac{[\Delta rev - \Delta rec]}{ta_{it-1}} \right) + \beta_3 \left(\frac{ppe_{it}}{ta_{it-1}} \right) + \beta_4 \left(\frac{cfo_{it}}{ta_{it-1}} \right) + \beta_5 (dcfo_{it}) + \beta_6 \left(\frac{cfo_{it}}{ta_{it-1}} \right) * dcfo_{it} + e_{it} \quad (2)$$

Where $tacc_{it}$ is the total accruals, ta_{it-1} is the total assets for the previous year, Δrev is the change in revenue, Δrec is the change in receivables, ppe_{it} is the net property, plant, and equipment, cfo is the cash flow from operations lagged by total assets, $dcfo_{it}$ is the negative cash flow, roa_{it} is the return on assets, e_{it} is the discretionary accruals.

Audit Price-Quality Model

Validating our 3 hypotheses, we develop the audit price-quality model to test the effect of audit price components of economic bonding, client’s bargaining, and auditor’s effort on audit quality. The model is stated as:

$$DACI_{it} * (-1) = \beta_0 + \beta_1 LNAFEE_{it} + \beta_2 (ABAFEE)_{it} + \beta_3 (DPAAFEE)_{it} + \beta_4 (PABNFEE)_{it} + \beta_5 (AGE)_{it} + \beta_6 (BIG\ 4)_{it} + \beta_7 (CFO)_{it} + \beta_8 (\Delta LEV)_{it} + \beta_9 (LAGLOSS)_{it} + \beta_{10} (LNTA)_{it} + \beta_{11} (LOSS)_{it} + \beta_{12} (Z\ Score)_{it} + e_{it} \quad (3)$$

Where DAC_{it} represents the audit quality which is the residual term of Equation 2. $LNAFEE$ measures the natural logarithms of the normal audit fee, $ABNFEE$ is the abnormal audit fee which is the error term of Equation 1. $DPABNFEE$ is the dichotomous variables of the stochastic term of Equation 1, with a value of one when the abnormal fee is positive and zero otherwise, $PABNFEE$ is the interactive variable of ($ABNFEE$) and $DPABNFEE$ and e_{it} is the error term for ascertaining the negative abnormal audit fee. The economic tie between the auditor and the client is measured with the $DPABNFEE$, while $PABNFEE$ represents the client’s bargaining power.

The study introduces control variables such as client size, age, performance, financial condition, and auditor’s reputation into Equation 3. This is consistent with the study of (Krauß et al, 2015). The age of the firm (AGE) is measured by the successive years after incorporation at a given period. Age is expected to be directly related to audit quality as firms are expected to build a robust internal control as it increases in age. The study measures audit size with an attributable variable of one, when the client engages Big 4 (KPMG, Ernst and Young, Deloitte, PWC), and zero otherwise. It is expected that larger audit firms provide a quality financial report (Ilaboya et al., 2017; Urhoghhide & Izedonmi, 2015). The CFO represents total cash flow from operation divided by prior year total assets. The CFO measures the effect of firm growth on audit quality. The change in leverage (ΔLEV) is measured by the change in debt scaled by the total assets. Prior year loss ($LAGLOSS$) is measured as a binary code of one when the client incurred loss in the prior year and zero otherwise. $LOSS$ is also measured as a dichotomous variable, a value of one is given when the client incurred loss in the current year and zero otherwise. The financial distress is represented by the Z Score developed by Zmijewski (1984). We assume that CFO , ΔLEV , $LAGLOSS$, $LOSS$, and Z Score are inversely related to audit quality which is consistent with the empirical studies (Asthana & Boone, 2012; Choi et al., 2010; Krauß et al., 2015). The total assets ($LNTA$) measured by the natural logarithm of total assets, is assumed to be positively related to audit quality which is consistent with other studies (Eshleman & Guo 2014; Nugroho & Fitriany, 2019).

4. RESULTS AND DISCUSSION

Descriptive Statistics

Firstly, the audit fee in Table 1 has no economic and financial interpretation except it is delogged through the use of exponential power. The delogged audit fee has a mean and (median) of ₦11,798,870 (₦13,556,390) respectively indicating that the audit fee is negatively skewed. The audit fee over the period ranges from ₦14,000,000 (minimum value) and ₦599,997,040 (maximum value) resulting in a range value of ₦585,997,040 (maximum value-minimum value). A comparative analysis of the mean of ₦11,798,870 and the maximum and minimum value of ₦599,997,040 and

₦14,000,000 respectively indicated that there are existences of audit price disparity and differentiation in the audit market between the auditors. The disparity in audit fee is also supported by a standard deviation of 1.51 indicating high audit price volatility. Table 1 also indicates the information about the abnormal audit fee which is the error term of Equation 1. The result shows that the abnormal audit fee model satisfies the assumption of OLS with a mean and median revolving around 0.00 & 0.000. The maximum and minimum value of ABAFEE is 0.92 and -1.00 signifying the existence of the economic tie and client’s bargaining power respectively. The positive abnormal audit fee, DPABAFEE, has a mean value of 0.52. The result indicates that 52 per cent of the audit firms charge an excessive premium in the industry while 48 per cent charge a negative abnormal fee. The interaction between ABAFEE and DPABAFEE has a mean of 0.08.

Furthermore, Table 1 also shows that the audit market share is fairly distributed between the Big Four and the non-Big Four, with the Big Four holding an average of 58% of the total market share (this is measured by the number of clients in the industry) for the period under study. Moreover, the result depicts that the listed non-financial firm is fairly geared with an average leverage value of 0.57, which shows that the industry is 57% equity financing and this value increases the cost of the debt finance. The capital structure is highly volatile with the financial risk measured by the standard deviation of leverage with a value of 3.87. Table 1 also depicts that Nigerian non-financial listed firms’ sizes, measured by total assets, are heterogeneous. This is evidenced with the maximum and minimum value of ₦469,092,248,980 and ₦41,171,850 after delogging 19.97 and 10.63 respectively, which widely deviated from the average and (median) value of ₦11,145,763,180 and ₦12,398,548,910. Client size is negatively skewed over the period of the study. This is a result of the mean value fallen short of the medium value. DACI measures discretionary accrual and its inverse invariably measures the audit quality. The table shows that the mean and median of the DAC is 0.00 and (0.00), this result shows that the assumption of OLS is not violated.

Table 1: Descriptive Statistics

| | Mean | Med | Max | Min | Std. Dev. | Skew | Obs |
|-------------|-------|-------|--------|-------|-----------|-------|-----|
| LN_AUD_FEE_ | 9.37 | 9.51 | 13.30 | 2.64 | 1.51 | -1.58 | 450 |
| ABAFEE | 0.00 | 0.00 | 0.91 | -1.00 | 0.22 | -0.39 | 450 |
| DPABAFEE | 0.52 | 1.00 | 1.00 | 0.00 | 0.50 | -0.07 | 450 |
| PABAFEE | 0.08 | 0.00 | 0.91 | 0.00 | 0.13 | 2.53 | 450 |
| AGE | 23.25 | 41.00 | 93.00 | 19.00 | 28.41 | -6.43 | 450 |
| BIG_FOUR | 0.58 | 1.00 | 1.00 | 0.00 | 0.49 | -0.31 | 450 |
| CFO | 13.72 | 14.17 | 18.46 | 5.35 | 2.53 | -0.62 | 450 |
| LEV | 0.57 | 0.00 | 0.86 | 0.05 | 3.87 | 8.20 | 450 |
| LAG | 0.13 | 0.15 | 1.00 | 0.00 | 0.6 | -1.54 | 450 |
| LNTA | 16.23 | 16.35 | 19.97 | 10.63 | 1.95 | -0.71 | 450 |
| LOOS | 0.21 | 0.00 | 1.00 | 0.00 | 0.41 | 1.40 | 450 |
| ZSC | 3.49 | 1.52 | 103.50 | 0.02 | 12.04 | 6.71 | 450 |
| DAC | 0.00 | 0.00 | 32.08 | -6.01 | 2.59 | 9.21 | 400 |

Source: Authors’ Computation 2021

Interpretation and Discussion of Finding

Table 2 indicates the result of the regression in Equation 3, using the fixed-effect OLS method. Before the estimation, we carried out a pairwise correlation analysis on all the variables in Equation 3. The result is not displayed in the study for brevity purposes but shows that there is no problem of multicollinearity as all absolute values of the pairwise correlation coefficient is less than 0.7. we also control for the possibility of outliers by winzorising the continuous variable at 1 and 99% respectively.

The result in Table 2 shows that LN-AUDFEE is positive and significantly related to audit quality with a statistic of (coeff = 0.90, t-stat= 6.34). The result indicates that as the normal audit fee increases, the auditor invariably increases the audit procedures or process which leads to improvement of financial reporting and audit quality. The result validates our third hypothesis in section 2 and also supports the study of Mitra et al. (2009). ABAFEE is associated with audit quality with a statistic (coeff = -0.87, t-stat = 0.77). The result shows that although there is a likelihood of the existence of abnormal audit fee in the non-financial sector, auditor's independence is not compromised. The result obtained from ABAFEE could cloak the effect of economic bonding and client bargaining power. Hence, it will unmask the effect of economic bonding and client bargaining power with DPABAFEE and PABAFEE.

The result shows that DPABAFEE is negative and insignificantly related to audit quality with a statistic of (coeff = -0.58, t-stat = -1.38). The result indicates that a positive abnormal audit fee exists in the Nigeria non-financial institution but not material to compromise auditors' judgement and objective. Hence, the result invalidates our first hypothesis as auditors are insignificantly affected by the economic pressure from the client. The result contradicts studies (e.g. Choi et. al., 2010; Kinney & Libby, 2002; Krauß et al., 2015; Ogujiofor, Anichebe & Ozuomba, 2017) but conforms with studies (e.g Alhadab, 2017; Eshleman & Guo 2014). PABAFEE is positive but insignificantly related to audit quality with a statistic (coeff = 2.90, t-stat = 1.61). The result connotes that when clients underpay auditors as a result of their bargaining power, the auditors are not economically induced to compromise audit quality, hence may likely not allow the management to engage in opportunistic behaviour and result in a higher likelihood of improving audit quality. The result is consistent with the studies of Choi et al. (2010) and Krauß et al. (2015) but also contradict the work of Alhadab (2017), Eshleman & Guo (2014), Nugroho & Fitriany (2019) and Zhang (2017). The differences in our result from various studies could be attributable to the proxies used in measuring the audit quality, and abnormal audit fee. Also, the factors that determine the audit fee model and the period covered by the studies and other environmental factors in different sectors or countries could account for the differences.

Robustness Check

To validate the result of the study, we employ audit quality model substitution, using the performance-adjusted modified Jones model (Dechow et al 1995) and the real earnings management. The modified Jones model is given as:

$$\frac{TACC_{it}}{TA_{it-1}} = \beta_0 + \beta_1 \left(\frac{1}{TA_{it-1}} \right) + \beta_2 \left(\frac{[(\Delta REV_{it} - \Delta REC_{it})]}{TA_{it-1}} \right) + \beta_3 \left(\frac{PPE_{it}}{TA_{it-1}} \right) + \beta_4 \left(\frac{ROA_{it}}{TA_{it-1}} \right) + e_{it} \quad (4)$$

The real earnings management model proposed by Roychowdhury (2006) includes the three activities which the management can use in the manipulation of the financial reporting. The activities are (i) cash flow (CFO); (ii) production cost (APro), and (iii) expenses. To control for heteroskedasticity we scaled down the Equation 5, 6 and 7. The inverse of the summation of the stochastic term of the three activities is used to proxy the audit quality. This is appropriate for non-financial institution and is stated as:

$$(\varepsilon(CFO)_t + \varepsilon(PRO)_t + \varepsilon(Exp)_t) * (-1)$$

Hence, the audit quality is measured by:

$$\frac{CFO_t}{TA_{avg}} = \alpha_0 + \alpha_t \frac{1}{TA_{avg}} \alpha_1 \frac{Sales_t}{TA_{avg}} + \alpha_2 \frac{\Delta Sales_t}{TA_{avg}} + \sum_{i=1}^n \phi_i FirmFixed_i + \sum_{i=1}^t \delta_i Year_i + \varepsilon(CFO)_t \quad (5)$$

$$\frac{PRO_t}{TA_{avg}} = \alpha_0 + \alpha_t \frac{1}{TA_{avg}} \alpha_1 \frac{Sales_t}{TA_{avg}} + \alpha_2 \frac{\Delta Sales_t}{TA_{avg}} + \alpha_3 \frac{\Delta Sales_{t-1}}{TA_{avg}} + \sum_{i=1}^n \phi_i FirmFixed_i + \sum_{i=1}^t \delta_i Year_i + \varepsilon(PRO)_t \quad (6)$$

$$\frac{Exp_t}{TA_{avg}} = \beta_0 + \beta_t \frac{1}{TA_{avg}} \alpha_1 \frac{Sales_t}{TA_{avg}} + \alpha_2 \frac{\Delta Sales_t}{TA_{avg}} + \sum_{i=1}^n \phi_i FirmFixed_i + \sum_{i=1}^t \delta_i Year_i + \varepsilon(Exp)_t \quad (7)$$

The results of the regression using real earnings management are shown in Table 2. DAII and DAIII represent the dependent variable of the Modified Jones model and real earnings management (Roychowdhury, 2006) respectively. The result is consistent with the regression output for DAI except for PABAFEE which is significant at 10%. The result indicates that economic bonding compromises auditors' independence which invariably may impair audit quality and objectivity.

Table 2: Source: Authors' Computation 2021

| Dependent Variable | DAI | | DAII | | DAIII | |
|--------------------|-------|----------|-------|----------|-------|----------|
| | Coff | t-stat | coff | t-stat | coff | t-stat |
| Cons | 1.76 | 1.30 | 1.67 | 1.35 | 1.76 | 1.28 |
| LN_AUD_FEE_ | 0.90 | 6.34*** | 0.21 | 1.60 | 0.89 | 6.12*** |
| ABAFEE | -0.87 | -0.77 | -0.17 | -0.16 | -0.94 | -0.83 |
| DPABAFEE | -0.58 | -1.38 | -0.28 | -0.74 | -0.58 | -1.37 |
| PABAFEE | 2.90 | 1.61 | 1.66 | 1.01 | 3.06 | 1.70* |
| AGE | 0.00 | 0.92 | 0.00 | 0.71 | 0.00 | 1.11 |
| BIG_FOUR | 0.20 | 0.61 | -0.03 | -0.12 | 0.17 | 0.53 |
| CFO | 0.05 | 0.40 | 0.27 | 2.53** | 0.06 | 0.46 |
| CHG_LEV | 0.02 | 0.62 | 0.09 | 2.62*** | 0.02 | 0.56 |
| LAG | -0.02 | -0.69 | -0.01 | -0.30 | -0.02 | -0.63 |
| LNTA | -0.65 | -3.71*** | -0.44 | -2.75*** | -0.64 | -3.67*** |
| LOOS | -0.19 | -0.50 | -0.08 | -0.23 | -0.21 | -0.54 |
| ZSC | -0.03 | -2.21** | -0.01 | -1.14 | -0.03 | -2.26** |
| R-squared | 0.15 | | 0.07 | | 0.15 | |
| Adj R-squared | 0.12 | | 0.03 | | 0.11 | |
| Std.Error | 2.51 | | 2.24 | | 2.53 | |

The Table shows the coefficients and t-statistics of regression from Equation 3 ***, ** & * indicated level of significance at 1%,5%&10% respectively. The dependent variables measure audit quality using DAI, DAII& DAIII, which are error terms from Equation 2, 4 and summation of the residual of equation 5,6 &7.

5. CONCLUSION

The objective of the study is to examine the association between audit price and audit quality. We test the hypotheses that economic bonding, client's bargaining power and auditor's productive effort, which are components of audit price, affect audit quality. To test these hypotheses, the study decomposes the total audit fee into normal and abnormal audit fee. The normal audit fee measures the auditor's effort while the abnormal audit fee represents the proportion of the total audit fee that may likely compromise the auditor's independence. The study separates the economic bonding and client bargaining power effect by splitting abnormal audit fee into positive and negative abnormal audit fee. The positive abnormal audit fee represents economic bonding and the underpayment (negative abnormal audit fee) represents the client's bargaining power. We measure audit quality using earning quality of Ball & Shivakumar (2006) discretionary accrual model. The study employs the ordinary least square method to estimate the audit fee-quality model. In respect of this objective, we add to the body of knowledge by being the first to examine these three variables of interest on audit quality in Nigeria. Our findings show that the auditor's effort is directly related to audit quality, this is evidenced in the result as there is a positive association between normal audit fee and audit quality. We also find out that economic tie has an insignificant negative relationship with audit quality, indicating auditor independence is not impaired by economic bond. Finally, the result shows that underpayment of audit services exists, but has an insignificant effect in impairing auditors' objectivity as the result indicates an insignificant association with audit quality. There is the possibility that our findings could be limited by abnormal audit fee and audit quality as both variables are unobservable. We mitigate against this backdrop by developing a well-expanded audit fee model. In addition, we incorporate 14 explanatory variables to capture the composite factors, such as client complexity, client size and auditor risk, which to the best of researchers' knowledge has the highest explanatory variables in the Nigerian abnormal audit literature. Several explanatory variables are included in the audit fee model to reduce the value of the abnormal audit fee, which is the stochastic term in the audit price model.

Furthermore, we employ a model substitution to check the robustness of audit quality and to ascertain the consistency of our result. The result obtained from the audit quality model substitution is not statistically different. However, we cannot rule out the possibility of economic bonding arising from gifts and hospitality given to the audit team, and also, an economic bonding of the audit partners which are not captured by our study but can impair the auditor's independence. Also, the effect of technology and the fourth industrial revolution in the auditing environment are not considered which may likely be the rationale audit firms accept a reduction in the audit fee and still do compromise audit quality. The study is consistent with the productive effort theory and will be of immense importance to stakeholders such as financial regulators, audit practitioners and investors as it will help in making informed judgements. The investors should have confidence in the financial report as the auditor's independence is not compromised. The financial regulatory bodies should constantly monitor the auditor's charging abnormal audit fee as audit quality can be impaired.

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HUMAN RESOURCE CHALLENGES RELATED TO THE DELIVERY OF EYE HEALTH CARE SERVICES IN SOUTH AFRICA: A NARRATIVE PERSPECTIVE

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ABSTRACT

South Africa faces challenges in the delivery of adequate public eye health care services, despite commitment to the international “Right to Sight” goal signed in partnership with VISION 2020. Currently, many South Africans affected by eye diseases remain least targeted by programmes for delivering public eye health services. The eye care industry is disproportionately distributed, with 80% of services offered in the private sector predominantly in urban areas. Understanding these gaps of access to eye health care is of paramount importance. A narrative review was conducted documenting notable challenges to delivery of public eye health services, and to propose the potential for a Public-Private Partnership to promote eye health. It is hoped that this research will influence policy and capacitate public eye health service delivery through equal distribution of resources, human resource capacity and implementation of monitoring and evaluation systems. Secondary data accessed electronically included national and provincial strategic plans, monitoring and evaluation reports, and pertinent literature relating to human resources for eye health. Secondary data as a method of inquiry was interpreted and analysed, as were peer reviewed journal articles. The study found that human Resources for eye health are unequally distributed in South Africa. Policies on eye health care are under guidance of a directorate for chronic diseases, disability and geriatrics, not emphasising the modalities for improving eye health care service delivery. The National Health Insurance has not facilitated access to eye care, or taken into consideration the integration of full health coverage to enable access to eye health, making this a a focal point for this study. Expectations for improvement of human resources is dependent on government’s willingness to prioritise eye care. A recommendation of this study is a policy based on equitable access to universal eye health coverage, and incorporation of the private sector through Public-Private Partnership as an urgent fit to address public health needs for enhanced service delivery.

Keywords: Human Resources for eye health; public health facilities; Public-Private Partnership; access to eye health care; South Africa

1. INTRODUCTION

Globally, some 48.2 million people were certified blind in 2017: an additional 39.6 million severe vision impairment, 279 million had moderate vision impairment, and 969 million had near vision impairment (Hassan, Ahmed, Li, Noor and Hassan, 2019). Most of the people affected (87%) live in low and middle-income countries (LMICs) (WHO, 2013; International Agency for the Prevention of blindness/IAPB, 2010). A variety of eye disorders contributes to visual impairment, including cataract, glaucoma, trachoma and refractive error (Binagwaho et al., 2015). Nearly 80% of impairments are preventable or treatable (New IAPB, 2012). Scientific evidence suggests that with ageing populations, and more disposed to sight loss and risks such as diabetes increasing, levels of avoidable blindness in the Sub-Saharan region are likely to rise. Despite the acknowledgement of an effective effort to upscale service delivery through an increased and more capable work force as documented in the WHO Workforce 2030, Africa continues to struggle to meet its Human Resource for eye Health (HReH) targets (Graham, 2017). While the expected ratio of providers to the population in 2107 was 4 ophthalmologists and 10 optometrists to a million population (Graham, 2017), South Africa was at a ratio of 1:15 052 for optometrists who are the largest cadre of primary eye care professionals in the country. There still remains a continued struggle to deliver equitable access to eye health services (Maake & Moodley, 2018). Strategic approaches to addressing the eye health workforce crisis are now urgent and essential (IAPB, 2014).

Africa has 15% of the world's blind population, 8.3% with low vision and 9.2% of visually impaired people with uncorrected refractive error, accounting for 42% of the global visual impairment. It is therefore considered a major public health problem (Loughman et al., 2014). The state of eye care in Africa stands in alarming contrast to that of the rest of the world. Different factors can be advanced to justify this contrast, including some eye diseases linked with poverty which cause preventable blindness, lack of educational programs and funding for these; inadequate healthcare services, and scarcity of eye care personnel (Naidoo, 2007). An estimated 32,700 people per one million are visually impaired in Africa (Binagwaho et al., 2015), while a total of 18-25% of the population in Sub-Saharan Africa (SSA) is estimated to be affected by eye diseases. This includes blindness (0.6%–1% of the population); moderate to severe visual impairment (3.6%–4%); presbyopia (7%–8%) and 'all other ocular morbidities', an overarching term that describes any significant eye condition which may or may not cause sight loss (8%–10%) (Graham, 2017). The World Health Organization (WHO); however, estimates that in SSA, almost eighty percent of visual impairment can be prevented or cured (Loughman et al., 2014). Some previous studies have warned that the ageing population and the lack of national plans to address the effect of visual impairment on people's productivity and quality of life, will likely increase the burden of eye disease in many African countries (Patel et al., 2006).

The rate of blindness, defined by the WHO as vision of less than 20/400 in the better eye in wealthy countries. is commonly below 0.5%, as compared to the blindness rates in many poor countries, which is more than 1-2%. Many factors explain this gap, some of which include the persistence of diseases that no longer occur in wealthy countries, like corneal trachoma, exophthalmia and Onchocerciasis (river blindness), and diseases particularly prevalent and untreated or undertreated corneal infections and HIV-related Cytomegalovirus (CMV) retinitis and lack of access to ophthalmic services. These

reasons also explain why poor people in the developing world suffer with far more blindness and visual impairment than wealthier populations (Sommer et al., 2014).

In terms of regional differences, the prevalence of distance vision impairment in LMIC's is estimated to be four times higher than in high-income regions (Sommer et al., 2014). With regard to near vision, the rates of unaddressed near vision impairment are estimated to be greater than 80% in western, eastern and central SSA, while comparative rates in high-income regions of North America, Australasia, Western Europe, and of Asia-Pacific are reported to be lower than 10% (Fricke et al., 2018).

A recent survey by Statistics South Africa estimated the population of South Africa to be 55 653 646, and found that approximately 9.2% of the total population used spectacles as a form of corrective device. The survey further indicated that 10.3% of the population has a sight disability, considered the highest of all forms of disabilities surveyed (Statistics South Africa, 2016). The distribution of people within the country in respect of their access to health services, influenced by the rural-urban disparities, remains a problem. The barriers to access and delivery of services particularly influenced by the availability of health care providers is a limitation to care. The low numbers of service providers in the country, coupled with their over-concentration in urban areas, poses a challenge to achieving targets for eye health service delivery where the mass population in need of such services is located within rural settings. Further, the disparity between the availability of service providers and the services provided in state facilities as compared to those in private settings as barriers to the uptake of care, are poorly documented. In 2017, nearly 3697 optometrists were registered with the HPCSA. Of this total, only 262 were employed at state facilities and such facilities were not equally or equitably distributed nationally. The remaining optometrists practised within the private sector. One hundred and thirteen ophthalmologists were accounted for in the state for the same period (Maake & Moodley, 2018). The marginal gap in the availability of service providers within the state and private eye health sector in South Africa is of dire concern, and warrants broad-reaching solutions to make the access to screening, diagnosis and linkage to higher care more efficient and effective.

Against this background, this research was conducted to document challenges to the delivery of public eye health services in South Africa. The intention is to propose the potential for public-private partnerships (PPP) to promote eye health by influencing policy and to capacitate public eye health service delivery through the equal distribution of resources, human resource capacity and implementing the monitoring and evaluation (M&E) system to facilitate the partnership. The paper adopted a narrative approach and was based solely on secondary data available and published on eye health and human resources for health-related topics in South Africa's post-apartheid government.

2. METHODOLOGY

A desktop search was conducted to access electronic health policy documents and national, as well as provincial, strategic plans on eye health in South Africa. In addition to this data, scientific articles on optometry and ophthalmology published after year 2011 were considered for analysis in this study. The units of observation for the study were secondary textual materials in the public domain. The research engine included but was not limited to, EBSCOhost depositor', Google scholar, PubMed,

Scopus and the Web of Science. The keywords for search were: ‘South Africa human resources for health’; ‘delivery of eye-health care services in South Africa’; ‘Shortage of HReH in South Africa’, and ‘human resource challenges to eye-health service delivery’. Inclusion criteria focused on articles published not more than 10 years ago, and the study was based on a South Africa context insofar as policy review is concerned. Research information relating to health policy documents, national and provincial strategic plans, published scientific papers, as well as selected research conducted in postgraduate studies, were considered for inclusion in the research. Exclusion criteria related to articles that were written in other languages that report on different issues from eye-health services and HR, and if they were dated earlier before 2011 as year of publication. No confidential information was considered in the research.

Additional secondary data was sourced from M&E reports at uMgungundlovu District, some published and unpublished dissertations and theses, as well as some informal conversation with most of the stakeholders directly and indirectly involved in the delivery of eye health services in South Africa. Aspects related to public eye health service delivery were explored to address the gaps and make recommendations. The study was exempted from ethics review as it was based on secondary data, and no information was collected empirically from human beings.

Data analysis

Relevant documents relating to the research were analysed qualitatively, using content analysis (Bengtsson, 2016). The first step consisted of identifying and collecting relevant information from the documents. Secondly, we determined the coding categories of the content, followed by reliability and validity of the information (Elos et al., 2014; Krippendorff, 2004; Morgan, 1993; Neuendorf, 2002) and finally, the results were presented in the research.

3. FINDINGS RELATING TO MAL-DISTRIBUTION OF HUMAN RESOURCES

Content analysis revealed that there is a mal-distribution of human resource for eye health (HReH) in the country, and this negatively affects service delivery in this specific field. While the demand for eye health services remains high, the limited number of HCP especially in rural areas renders the service inaccessible. Research findings reveal that the eye care sector is one of the healthcare areas most affected by the mal-distribution of personnel and services in many African countries (Oduntan et al., 2015). Many challenges have been identified as parameters that explain this mal-distribution including the unequal distribution of the population when comparing rural and urban areas. Majority of the population live in rural areas where they experience poor health due to a limited access to health and social services (Oduntan et al., 2015).

The unequal demographic distribution in Sub-Saharan Africa correlates with the shortage of trained staff at all levels. According to the IAPB, 67% of ophthalmologists and 66.3% of optometrists are more likely to be employed in capital cities. This is, however, considered less than 50% of the minimum number of service providers required to meet the ophthalmic demands of the population (IAPB, 2014). Furthermore, people living in rural areas are usually of lower socio-economic status, and do not have necessary access to eye care services due to several factors which include no-availability, no-accessibility and non-affordability of such services (Ntsoane et al., 2012). Meanwhile,

in settings where these services exist, it appears that many barriers tend to limit the uptake of available services such as the lack of knowledge of service availability, affordability, and cultural beliefs. Utilisation of available eye care services is mandatory for the reduction of the burden of visual impairment worldwide (Ntsoane et al., 2012).

A previous study by Thivhafuni found poor availability, accessibility and affordability of primary eye care services in the Mutale Municipality of Vhembe District, Limpopo Province, South Africa (Thivhafuni, 2011). Data from other provinces shows that in 2010, only 10% of private sector optometrists in KwaZulu-Natal were based in a primarily rural setting. The Health Professionals Council in South Africa (HPCSA) reported that in 2007, over 109 posts were available in the public sector across the nine provinces of South Africa with at least half of them unfilled (Ramkissoon, 2014). Reluctance by professionals to take up posts in the public sector needs to be better understood with a view to create an enabling environment for service delivery which reflects the needs of health care workers to achieve national goals in the interest of the public. These ideally should include financial and non-financial incentives with due consideration to the growth of individuals professionally and in a personal capacity. The improvement of working conditions through the provision of adequate equipment and infrastructure and structured opportunities for career pathing would serve to improve interest. Better education within the Department of Health regarding the role and scope of clinicians and their interdependent roles for efficiency, could improve how and where posts are created. A stronger focus is necessary and the placement including training of clinicians within rural environments, especially for those who graduate on bursaries with little financial resources could serve to fulfill multiple roles for both clinicians and communities they are called to serve (Ramson et al., 2016).

Limpopo and the KwaZulu-Natal Province are now prioritising eye care services as one of the healthcare focus areas, but it is taking a while for the other provinces to do the same. To make primary eye health services more readily available, an increase in posts and budgets for optometrists' salaries in the public health sector has been established. The financing however, of the provision of ophthalmic devices remains a major obstacle (Mashige et al., 2015).

4. HUMAN RESOURCE CHALLENGES TO PUBLIC EYE HEALTH SERVICE DELIVERY

Efficient delivery of eye health services relies more on two things, namely, the production of sufficient HReH and their equal distribution across all public health facilities both in rural and urban areas. While there are known challenges associated with the number of training schools for eye care professionals in Africa (Borrel, Dabideen, Mekonen & Overland, 2013; Oduntan, 2015), there has been efforts by NGOs like the Brien Holden Institute (Brien Holden Vision Institutes, 2014) and collaborative academic arrangements between training institutions in South Africa and the USA, to improve the output of optometrists in their capacity as primary care providers for eye and vision. This also includes simultaneously providing such services (Naidoo, 2014b). Despite the number of optometry institutes in Africa, the optometrist-to-population ratio is low in virtually all African countries (Oduntan et al. 2014), including South Africa.

Regarding health facilities, there is a lack of resources to cover the gap that exists for pediatric ophthalmic centers. While WHO recommends one pediatric ophthalmic center (child eye health tertiary facility [CEHTF]) per ten million population as a minimum service to address children's needs; only 26 such centres exist in the Southern African region and these are distributed across 11 of the 54 countries. Southern Africa with 13 countries and an estimated population of 151 million, holds only 4 child eye health treatment facilities (Borrel et al., 2013).

In South Africa, challenges are similar to those experienced in the region, especially with limited access to public health services in rural areas. This is the result of considerable imbalances between urban and rural health care centres, and manifests in various ways which include rural areas having limited availability of healthcare personnel (Zihindula, Ross, Gumede & McGregor, 2019); lack of social infrastructure required for eye health and few opportunities for professional development. A concern includes the poor prospects for lucrative part-time private practice for health workers (Oduntan et al., 2015).

The health care system is overburdened and poorly functioning, as described previously, and as per the apartheid government, was racially-based with large well-equipped hospitals emerging in communities which were home to economically privileged communities such as Pretoria, Stellenbosch and Bellville, while the facilities in the homelands were under-funded, under-equipped and under-staffed (Sithole et al., 2010). Not much has changed from these findings to date. Achievement of universal eye health coverage which is a strong, efficient, structured, and a well-run eye health system is the cornerstone for improving public health eye services. All South Africans should access eye health care services without hardship and receive appropriate treatment by qualified workers, as recommended and adopted from the IAPB strategic plan 2014-2023 and national and provincial eye care plans. The IAPB strategic plan aligns accordingly with the National Health Plan (NHP) developed by the ANC after the inception of democracy in 1994. The inherited imbalances and dysfunctions of the health system and the consequences on how eye health care services are currently delivered in South Africa, continue to advance the inequitable service delivery model envisioned by the apartheid regime. The NHP emphasized that all health care professionals were equally important, and that teamwork should form the basis of the new public health system. Meanwhile, the NHP also included community participation, respect for human rights and accountability towards users of the health care facilities and the public at large. This includes improving efficiency and promoting greater control of health issues by individuals and communities (African National Congress, 1994). The country seems not to have adhered to this NHP, and consequently, the clinical outcomes of people in these rural areas remains critical. Blindness and visual impairment can result in a lack of education and employment that can be a burden on families and healthcare systems (Oduntan et al., 2002). These barriers ought to be broken down to provide quality eye care in South Africa. Whereas some of the challenges experienced by the healthcare system are a result of the skewed practices of the apartheid era in South Africa, there has been poor recognition of the public health system and its enablement of racial segregation promulgating racist legislation (Sithole, 2015).

5. PROPOSED SOLUTIONS TO PUBLIC EYE HEALTH SERVICE DELIVERY

South Africa is a signatory to the Vision 2020 as a right to sight initiative. This is a global initiative to encourage national governments to commit to eye health service targets to prevent avoidable blindness and improve the eye health status of all people, equitably. Several countries have signed the declaration and have established national committees for the prevention of blindness (Faal & Gilbert, 2007). Through this partnership, many achievements have been reached with significant results. However, in Sub-Saharan Africa, several challenges remain when it comes to observing the great number of people suffering from blindness despite commitments made by governments (Prozesky et al., 2007). The commitments assigned by governments and Vision 2020 to improve eye care services worldwide are increased political commitment; increased commitment from eye health professionals; increased commitment and support from national and international NGOs and increased involvement of and partnership with, the corporate sector.

Most developing countries have integrated health promotion into their Primary Health Care systems to expedite the delivery of healthcare services, including South Africa (Sithole, 2017). Advocacy for eye health promotion emerged from “Ottawa charter for Health promotion” as a crucial component of VISION 2020. It has been an important part of global health promotion initiatives for the past twenty years, since the first international Conference on Health Promotion held in 1986 in Canada (Prozesky et al., 2007).

There are four national guidelines governing different aspects of eye care as part of health promotion. These include the national guideline on the prevention of blindness in South Africa, which concentrates on the prevention of avoidable blindness as a component of the vision 2020 global initiative (Sithole et al., 2010), and an advocacy strategy aimed at improving eye care delivery. This policy highlights the importance of identifying stakeholders who can influence change, namely policy-makers, community leaders and health professionals (Thulasiraj, 2007). Advocacy programs are, therefore, believed to bring a solution to the current public eye health service challenges in South Africa.

The Green Paper released on 12 August 2011 proposed the implementation of the NHI as a ‘vehicle’ to achieve equitable health service delivery for all people. Consequent discussion and planning towards materialising the goals of the NHI ignites hope that health service delivery with the promotion of primary eye health services; a step away from hospi-centric approaches to health service delivery would prioritise eye health service delivery and create pathways to identify and resolve challenges impinging on the service delivery until now (National Department of Health., 2011). The successful implementation of the NHI hinges on its ability to successfully bridge the gap between the private and public health sector through approaches which create opportunities for PPP. It will also require a rights-based approach to ensure those with the greatest needs are accommodated, and that the whole process is transparent and fair. These key areas would also have a direct bearing on how eye care services in South Africa could be delivered in the public health sector (Sithole, 2015).

Some interventions previously undertaken to address the gap in eye health service delivery included efforts from The International Centre for Eye-care Education (ICEE), through its “giving sight”

program” aimed to equip ophthalmic nurses within the KwaZulu-Natal Province, to provide primary eye health care to the rural communities. The program also aimed to focus on eye health promotion (Sithole et al., 2010). While the program aimed to align with the vision 2020 goals to eliminate avoidable blindness, the project was unsustainable and the organisation was absorbed by a global NGO, which impacted on the achievement of the primary goals. The literature identified a gap in the reporting of the effectiveness of the organisation to achieve its goals prior to its absorption, and a barrier to achieve the intended goals was an incongruent relationship between the organisation and the stakeholders within the department of health. The emergence of NGOs and corporate social service initiatives within the eye health space continues to exist. While they serve to cooperate with government to achieve some of its targets, there is little published information about their impact thereof, both from organisational and government levels. Their systems of operation and the models for engagement to facilitate such engagements are also poorly reported on.

Furthermore, South Africa established the National Prevention of Blindness Programme which aimed to provide support to the prevention of blindness program in South Africa and Southern African Development Community Countries, coordinates of the prevention of blindness programs in South Africa, promote and protect the rights of blind persons, and reduce the prevalence of blindness in the country from 0.75% to 0.50% by the year 2005. However, it is not known whether this has been achieved or not (South African National Department of Health, 2002). Programs intended to achieve the prevention of avoidable blindness requires a strengthened public administrative response to provide meaningful reporting on projects undertaken (Sacharowitz, 2005). The reporting on the prevention of blindness efforts in the country remains a challenge in 2021.

These policies described did not elaborate on the exploration of the placement of primary eye care providers in South Africa such as optometrists at state or district hospitals. An exception is only shown from the DoH-Limpopo province, which has had the privilege of employing optometrists in government hospitals since 1991, and currently has more than 30 optometrists in various hospitals, which is seen as an achievement in public eye health service unmet by any other province (DoH, 2013). This model brought relief to the population in the province and organisations like the ICEE and others who tried to reach this milestone for the creation and management of primary eye care service posts, specifically for optometrists within the public health system (Sacharowitz, 2005).

In terms of human resources for eye health, KwaZulu-Natal has recently developed its public-sector optometry systems. Some posts have thus been created by the DoH in several hospitals throughout the province. While most district and regional hospitals have two optometrists that provide refraction, evidence suggests that there is a high level of mobility amongst these public sectors optometrists with staff not being retained for long periods of time, despite efforts by the Department of Health to retain them within the system (Ramkissoon, 2014; Maake & Moodley, 2018, and Ramson et al., 2016).

6. PRIORITISING HEALTH EQUITY THROUGH IMPLEMENTED SOLUTIONS

Equal access to health care services in one of the Sustainable Development Goals (SDGs) is a key focus area for the World Health Organization (WHO), and considered as one of the highest priority for the national department of health in the government of South Africa. These targets and goals are

focused on general health issues and specifically eye-health (Facciolo and Neyhouser, 2016; Lewallen et al., 2009, and Trimmel, 2016). In South Africa, the government introduced numerous developments and programs to improve the efficiency, safety and quality of public health service delivery and access for all users (Lawn & Kinney, 2009). Several commendable goals for improving quality of service delivery in health care settings have been set. Disappointingly, reports revealed that services in public health institutions were nonetheless failing to meet basic standards of care and patient expectations (Maphumulo & Bhengu, 2019). Regarding eye care services, there are significant variations in health status and access to health services across the nine provinces in South Africa (Lawn et al., 2009).

A study by Sithole (2013) revealed that an estimated 60% of the population had access to eye health care in urban areas of South Africa, while in the rural areas, only an estimated 30% of the population had access to eye care. This contrasts with the fact that the majority of South Africa's poor live in rural areas which have an existing shortage of a sustainable eye health human resource capacity. Of significance, from 325 ophthalmologists in South Africa, only about 70 worked in the public sector serving 80% of the population (Lecuona, 2007). Moreover, the Brien Holden Vision Institute, in analysing the registration board from HPCSA, 2013, showed that about 97% of 3408 optometrists registered were practising in the private sector in the various provinces of South Africa (Brien Holden Vision Institute, 2006). The disparity attached to the geographic locations of health services and communities based on their economic status, the unequal distribution of human resources, altogether do not advance equity in South Africa.

The World Report on Vision (WHO, 2019) promotes equity in eye health services premised on the principles of Universal Health Coverage (UHC), which stipulate that people should be able to access the health services they need without risking financial ruin or impoverishment. However, the effective implementation of this principle requires a robust health financing system which guarantees a fair distribution of the burden of paying for health care according to ability to pay (Asante, Price, Hayen, Jan & Wiseman, 2016). It is increasingly recognised that measures to promote financial protection through UHC represent major components in global efforts to fight poverty, and this is reflected in the United Nations SDGs (Asante et al., 2016), to which South Africa is a signatory.

Despite the establishment of the NHP by the Government to address equity in the health sector, this study finds limited services available to the general majority such as screening and basic treatment at primary health care clinics. The state of eye health is disconcerting despite the various interventions that have been subsidised to address the problem in South Africa (Jaggernath et al., 2014), given that none of the programs have prioritised equity.

Policy implications relating to eye health

Human Resources for eye Health remain challenging in South Africa and is one of the key limitations for access to eye health services delivery. Information gathered in this study suggest that the barriers of service delivery require a refreshed and broad approach to achieve the goals envisioned by the government within its national and provincial plans. To address the situation, the following recommendations are proposed:

- Developing a directorate of eye health independently of another directorate.

- Delving deeper into the roles and capacities of the different cadres within the eye health service delivery system to maximise skills, through strengthened collaborative systems.
- Creating a functional public administration system for public health eye services which seeks to streamline services providing maximum care and support at the earliest point of contact with the health system.
- Mitigating duplication of services through the utilisation of administrative tools such as a database for the tracking of patients, from entry into the system until discharge as an example.
- Proposing specific reforms to the National Health Insurance policies on primary health services to assure easy access and large coverage of the population widely affected by eye health disease.
- Considering the private sector as a paramount partner in the fight against several health challenges and developing a consistent and sustainable collaborative approach, which shifts away from the silo-based system PPPs have adopted.
- Elaborating on the national public eye health service delivery model to enhance eye health service delivery aligned with national targets, where reporting and evaluation systems are in place to ensure that appropriate interventions are implemented timeously.
- Developing a system that is attractive for the workforce to bring their skills to the public sector, and to best create strategies to retain it in rural areas.
- Requesting NGOs that work in this sector to start publishing and reporting challenges found, so that more data could be available, and to use the established M&E team to produce such data on a quarterly basis.
- Allocating sufficient funds to the public sector for the improvement of infrastructure, thereby making available the necessary equipment and added capacity to the workforce.

Progressively, support and promotion for stronger collaborative strategies between undergraduate training programs and the public eye health service, with a focus on increasing the reach to rural health settings, are envisaged. The strategies explored should include a compulsory community service year for primary eye care practitioners as a policy imperative.

7. CONCLUSION

A public-private partnership is viewed here as being of paramount for the purpose of improvement of eye care service delivery in the public health sector in South Africa. With strong commitment, clear policy, implementing health promotion and incorporation of private sector, South Africa can address its challenges related to public eye health services and gradually promote equity in accessing and utilisation of these services. The scarce documented literature regarding the impact of the public administrative system governing public eye health services in South Africa, is noted and must be addressed. Finally, the “Right to Sight” can be achieved when policy is influenced to capacitate public

eye health service delivery through equal distribution of resources, human resource capacity and implementation of increased M&E systems for effective partnership.

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THE RELATIONSHIP BETWEEN FOOD-SHARING AND SOCIAL COHESION AMONG LOCAL FARMERS IN THE EASTERN CAPE: A CASE OF NTAUFUFU LOCATION

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ABSTRACT

Cultural anthropologists have a long practice of reviewing the social and symbolic roles of food. The foregoing scholarship inspired the author to conduct a study that would unravel the relationship between food-sharing and social cohesion among local farmers. The researchers contemplated examining how food-sharing unites local farmers. This paper aims to explore the relationship between food-sharing and social cohesion among local farmers in the Ntafufu Location, Port St Johns. The main objectives of this paper included investigating reasons behind food-sharing, how food-sharing is practised at the Ntafufu location, and how food-sharing promotes social cohesion. A mixed-method research design was applied, and triangulation was used to measure the correlation between food-sharing and social cohesion. The total sample size was fifty-six (56) participants, where thirteen (13) participants were purposively selected for qualitative interviews and a sample of forty-three (43) respondents was randomly selected to respond to the questionnaires. Interview guides and questionnaires were used to collect data. Moreover, thematic analysis was used to analyse qualitative data while SPSS was used to analyse quantitative data. The findings revealed that there is a strong statistically positive correlation between food-sharing and social cohesion. Importantly, the findings indicated that food-sharing alleviates poverty. However, several social limitations need to be considered, such as witchcraft, which undermines the food sharing practice. The paper recommends that local farmers should share production resources and not only food. Further, communities should implement programs that can initiate and strengthen professional farmers. These programs could be utilized as platforms to learn, share indigenous knowledge, and skills regarding food-sharing.

Keywords: Food-sharing, Social exchange, Local farmers, Social cohesion, Reciprocity.

1. INTRODUCTION

Irrefutably, food-sharing remains a fundamental component of sociality and identity in rural communities in South Africa such as Ntafufu in Port St Johns. This paper sought to illustrate how food-sharing can strengthen social cohesion among local farmers of Ntafufu. According to Crittenden and Zes (2015), the evolution of routine food-sharing outside of the mother-infant dyad is one of the fundamental characteristics that differentiate humans from other apes. “Sharing food may function to reduce variance in consumption, develop and maintain social bonds, or advertise skill in resource acquisition” (Crittenden & Zes, 2015). The importance of food-sharing is implicit in evolutionary models of life history, family formation, and altruism, yet the ontogeny of such behaviour is conspicuously absent from most theoretical models (Crittenden & Zes, 2015). Based on this theoretical gap, the researchers were prompted to undertake a study on the role of food-sharing among local people of Port St Johns. The researchers observed that food-sharing contributes towards social cohesion, and this practice is prevalent in Ntafufu community. It was against this backdrop that this paper investigated the authenticity of this observation.

2. LITERATURE REVIEW

Food-sharing: International perspective

According to Kummer (2018), food-sharing has been a topical and a long-standing interest in anthropology and other social and biological sciences. This is tied to notions of fairness, generosity, reciprocity, and egalitarianism. Similarly, Ready and Power (2018) in their work support this viewpoint by noting that food-sharing has been a central focus of research in human behavioural ecology and anthropology. They argue that either study of food-sharing has typically focused on the individual’s motivations to share, or the social formations and value systems that sharing produces. Food-sharing occurs both as communal meals and as gifts of foods exchanged between family, friends, and neighbours. Ready and Power (2018) state that this body of work fundamentally demonstrates that, while food-sharing is certainly an economic transaction, it is also social interaction. The close association of exchange and social relationships is of course a foundational observation within anthropology. Exchange relationships whether ceremonial goods, livestock, or foodstuffs reveal how individuals orient themselves to one another and situating them in the larger social structure of their community.

Jimenez and Pietras (2017) note that food-sharing has been widely observed in human societies. They argue that sharing may assume a reciprocal exchange, that is when individuals give to others and the act is later reciprocated, or resource pooling, in which individuals combine their acquisitions with others, and then divide the sum. In either case, when sharing involves giving resources to others, the behaviour is somewhat puzzling because it involves at least some short-term loss for the actor. When food recipients are relatives, an ultimate explanation for the sharing may be kin selection. However, sharing in humans often occurs with non-relatives and other benefits must explain sharing in those instances. Literature on food-sharing (Lievin-Bazin, Pineaux, Le Covec, Gahr, Bovet & von Bayern, 2019) demonstrates that food-sharing is considered as prosocial behaviour, which is intended to

benefit one or more other individuals. This behaviour can be defined as the joint use of a monopolized food source.

Food-sharing has been observed in very different contexts, such as between kin, during parent and offspring interactions, and between non-kin. Due to its apparent altruistic nature, food-sharing has raised a lot of interest in anthropology because it is still a puzzle of how it can become an evolutionarily stable strategy for poverty alleviation. Multiple hypothetical ultimate (kin selection, pair bond formation) and functional (reciprocity, interchange, and harassment avoidance) explanations of food-sharing have been proposed and tested. Liévin-Bazin, Pineaux, Le Covec, Gahr, Bovet and von Bayern (2019) state that functional explanations have also been proposed to explain food-sharing. One of the most popular explanations is reciprocity, where the donor is rewarded for his or her costly gift because the initial receiver will return the favour later. Fruth and Hohmann (2018) state that evolutionary models consider hunting and food-sharing to be milestones that paved the way for a primate to human societies. Since fossil evidence is scarce, hominoid primates serve as referential models to assess common ancestors' capacity in terms of communal use of resources, food-sharing, and other forms of cooperation.

They report the first known case of meat sharing between members of two *bonobo* communities, revealing a new dimension of social tolerance among this species. This observation testifies to the behavioural malleability that exists in the two *Pan* species and contributes to the understanding of traits of the last common ancestor of *Pan* and *Homo*. It also contributes to the discussion of physiological triggers of in-group/out-group behaviour and allows reconsideration of the emergence of social norms in prehuman societies.

3. METHODOLOGY

Research approach

Kumar (2018) states that qualitative and quantitative research approaches have different limitations and strengths. Therefore, the use of mixed methods in this paper was considered an appropriate attempt to take advantage of the strengths of each approach and in complementing each other. Moreover, the mixed-method research approach was chosen to augment the scope of the study to address the problem and the related research questions. The triangulation of data, therefore, allowed the researchers to identify various aspects of the topic more accurately by approaching it from different viewpoints. In this paper, a qualitative research approach was used to understand the participant's feelings and their behaviour when sharing food in their local settings. This approach allowed the researchers to record the attitudes, feelings, and behaviour of the participants. This approach also helped the researchers to understand the depth and details of food-sharing and social cohesion in the community under the study. Furthermore, a qualitative approach was used to understand the human behaviour of local farmers in Ntafufu, therefore we used their language to record aspects of social reality. On the other hand, the use of the quantitative research approach allowed the researchers to broaden the scope of the study by involving a larger number of participants to enhance the generalisation of the results. This helped the researchers to remain objective and generate accurate results and it also helped us to test the relationships.

Research design

An ethnographic research design and a quantitative descriptive survey were employed in this paper. De Vos, Delpont, Fouché and Strydom (2011) define ethnography as the study of an intact cultural or social group (an individual or individuals within that group) based primarily on observations over a prolonged period by the researcher in the field. The researchers examined the group's observable and learned patterns of behaviour, customs, and way of life. Thus, the report (findings) of this paper is a descriptive, interpretive, and holistic cultural portrait of local farmers in Port St Johns. The participant observation was used to fully understand the food-sharing practices without disturbing the practice. The researchers spent more time with the participants and this allowed the researcher to gain an in-depth understanding of participants' patterns of life and behaviours. The researchers spent about eight months with the participants and participated in their daily activities. This helped in developing trust between the participants and the researchers. This way the researchers observed different behaviours during food-sharing. Everyday events were recorded along with the participants' viewpoints and interpretations.

In this paper, the descriptive survey research method was adopted. This was used to allow the researchers to investigate more variables. The data was collected through observations and questionnaires. Since the data collected was both qualitative and quantitative, it provided a holistic understanding of food-sharing and social cohesion.

Sampling method

Sampling techniques are broadly categorized into two major types. These are probability sampling methods and non-probability sampling methods (Alvi, 2016). In this paper, both probability and non-probability methods were adopted. Probability sampling allowed the researchers to select participants who would provide a quantified perspective on food-sharing practices. On the other hand, non-probability sampling focused on the selection of several farmers to provide an in-depth account of their experiences and views about food-sharing practices in Port St Johns. Qualitatively, a purposive sampling technique was used to identify appropriate samples to generate content-rich data.

Sampling size

This study targeted a sample size of eighty (80) participants, where 30 participants were for qualitative investigation. However, it was only thirteen (13) participants who took part in the study, eight (8) participants withdrew, and the other nine (9) did not pitch up for interviews. A sample of fifty (50) respondents for the quantitative approach was targeted. However, the study yielded only forty-three (43) respondents, who responded to the questionnaires. The researchers managed to collect data from a sample of 56 participants in total. This implies that out of a sample of 80 participants, only 56 participants participated in the actual study. This represents 70% of the response rate. The response rate was higher than the average expected rate, thus giving confidence for data analysis, with possible data trustworthiness, validity, reliability, and credibility.

Data collection

This paper is informed by both qualitative and quantitative data collection methods. The qualitative data was gathered through discussions and participant observation. Simultaneously, quantitative data was gathered through the distribution of questionnaires. Participant observation was employed, though it is understood as the most subjective method of collecting data. However, while collecting data using participant observation, ethical issues were taken into consideration. The researchers closely interacted with the participants, which helped to generate rich data of the everyday life of the participants. Participant observation was used to probe and obtain a better understanding of the food-sharing practices. This allowed the researchers to gain a deeper understanding of social problems from the participants' perspectives. The researchers did not have to ask participants about their behaviour and reports from others, as the researchers were simply watching as individuals act and speak. The researchers were mindful of biasness and engaged the study participants with an open mind during the data collection process.

Moreover, triangulation was used to avoid personal influence on the findings, which safeguards the validity of this study. This study also used focus groups to get more in-depth information on the experiences, insights, attitudes, or beliefs of the participants. Three focus groups were used to generate qualitative data. The groups were guided by a list of questions during the discussions. Notably, only those who practised farming were purposively chosen to participate in the discussions. The researchers created a safe and encouraging environment for the participants to share their experiences on food-sharing and social cohesion.

On the other hand, questionnaires were also distributed to participants to facilitate the collection of a standardised set of responses for statistical analysis. The questionnaire comprised ten (10) close-ended questions. The questionnaires were administered by the researchers.

Data analysis

The qualitative data was analysed using thematic analysis, while quantitative data was analysed using Statistical Packages for Social Science (SPSS). Qualitative and quantitative data were coded to detect resemblances and variance in the data collected. The qualitative data was analysed and presented separately from quantitative data. Thematic analysis was used because it permitted the researchers to expand the scope of interpreting individual experiences. On the other hand, SPSS was used because of its ability to analyse data descriptively and testing of relationships (inferential statistics). This is very important in minimising biasness in the analysis. SPSS is also appropriate for handling a large amount of statistical data (Ozgur, Kleckner & Li, 2015).

4. RESULTS AND DISCUSSION

Demographic Information of Participants

The main demographic characteristics focused on in this paper were: gender, age, level of education, employment status, race, and marital status. The female participants constituted a majority in the qualitative approach, with nine (9), while their male counterparts were four (4). However, for the quantitative approach, males were the majority with 60.47%, whilst females constituted 39.53%. The

results also revealed that elderly people were the majority participants in this study even though the population of South Africa is largely made of young people. The researchers observed was that there were very few young people who were involved in the study area. In terms of education, this study established that most of the participants had matric and post-matric qualifications. Education plays a huge role in every sphere of life, this is because education provides knowledge and enhances skills that include problem-solving and promotes interpersonal relations such as respect for others and respect for weaker members of society (Sumra & Katabaro, 2014). These aspects are important for social cohesion and tolerance in the communities. The findings in chapter five revealed that most of the participants and respondents in this study were self-employed. These findings reflect that with the state of high-level education that most of the participants and respondents had put them at an advantage because they are using their skills to survive, this does not mean they do not have financial difficulties; according to the study results, the second largest group is unemployed.

The reasons for practising food-sharing

The responses from the participants showed different reasons for food-sharing practices in the study area. To this end, the study discovered that lately, food-sharing practices have social problems such as witchcraft and dishonesty. These factors are indicative of the food-sharing inability to hold the society together and undermines the primary objective of this practice. To illustrate this finding, the participants had the following to say:

“One of the reasons we practice food-sharing it’s because we grew up doing this. Our forefathers were sharing food with neighbours, so to us, this is a way of life. So we cannot exactly say why we are sharing, that is what was practised by our forefathers. So you just do it without a specific reason, we copied it from our parents and we saw it as a good practice to do, and it became a normal way of living. Our parents would share crops sometimes, but now we are not doing this practice anymore because we do not trust each other due to evils that are happening here”. **(Participant 1).**

“Food-sharing is part of our culture. We call it utshintsho. Here no one suffers in our presence, we share out of our hearts. We are not forced, and we not only share with our families but with the entire community. This helps even if I die tomorrow, I know that my children will be taken off by the community”. **(Participant 3)**

“I practice food-sharing because I want to depose poverty in the community. I usually practice food-sharing because it helps when you need some food, you know you have someone you can count on. It is the most efficient way of being able to get access to food”. **(Participant 6)**

We practice food-sharing for every farmer to get any kind of help from others like new skills, the spaces to grow seeds and when they need the tools and machines”. **(Participant 10).**

The responses above clearly show that food-sharing is important for the local farmers and the whole community. The participants also indicated that the practice of food-sharing helps to promote social interactions and social relations among the community. Consequently, it facilitates sharing of skills, such as skills to produce food, and exchanging seeds.

Humans have always been sharing food throughout their existence and this is being practised for various reasons (Ilgaz, 2014). For example, food-sharing may function as a way of advertising skills in resource acquisition. Moreover, food-sharing is not limited to just sharing foodstuff itself, but also the sharing of spaces and even skills around growing, preparing, and eating food (Crittenden & Zes, 2015; Rut & Davies, 2018). Duque and Stevens (2016) remark that food-sharing may occur among unrelated individuals. They further argue that for reciprocity, donors recoup any cost of helping another individual by receiving help from that individual in the future. These findings are in line with the view of Gassner, Harris, Mausch, Terheggen, Lopes, Finlayson and Dobie (2019) that agriculture in Africa is expected to meet the dual objectives of providing food and helping people to escape poverty. African agriculture is dominated by farms and donors who generally target their agricultural support at the smallholder sector. They further argue that, if the expectation gap between actual and potential yields can be closed, smallholders will grow sufficient crops to feed their families, with a surplus to sell. This will thus lead to food security and creating an income mitigate or alleviate poverty.

The process of food-sharing

When asked how the farmers practice food-sharing, the participants revealed that it occurs through food exchange. The data showed that people share food in different ways including the participants in this study. The process of food-sharing may differ between the farmers but there are rules and expectations from one farmer to another. Nonetheless, the goal is to help one another. This is an old practice, which was dominant in rural areas.

“We voluntary share food, eh... before the exchange, people would meet and discuss the type of food they have and then share if they agree. We exchange an equal quantity of the harvest. We also share what we have, and the second person does the same once he/she harvests. Sometimes we only share with those in need and we even developed programs to assist elderly people”.
(Participant 1)

“In this area, when someone does not have something to cook, you go to your neighbours and ask if they can be able to assist. They do so basically with people who do not have something to cook or those who do not have harvest and we only share what we have at the time of harvest. Those who have harvested more they share with those who have less harvest”.
(Participant 5)

“I think that food-sharing is now commercial. We sell food to a local store nowadays. When it was practised people would agree on what food to share. No money was required, it was just Ubuntu. It is no longer practised here we are just commercial farmers and our focus is on getting profit qha! And to be honest with you, we are no longer practising food sharing due to fear of being bewitched”.
(Participant 7)

The responses above highlight that local farmers who high harvest assist the poor in survival. However, even those who do not own land also share what they have with others. Moreover, the farmers usually share the land with other emerging farmers to grow their food and they also lend each other tools for farming. Food-sharing is replete with rules such as rules around when, how, and with whom it is socially, politically, and legally acceptable to share. Furthermore, these rules are not fixed,

they can change over time, space, concerning actors, materials, and entities involved in sharing. One of the rules mentioned by the participants is that whatever they share must be equal, and it is expected that a person should return the favour (Davies, 2019). Food-sharing is a foundational human practice at the very core of human civilisation, helping to secure sustenance, cement social relations and permit role specialisation within societal groups. While other species also share food, the patterning, persistence, and complexity of food-sharing within human groups mean that we share food like no others (Davies, 2019).

The findings revealed that the farmers did not only share food and meat but the land with those who do not have it. This finding relates to Bosch, Kok and de Olde's (2020) observation land-sharing has been seen as a solution to increase food production. The participants also said that this was no longer the practice they knew, because of the commercialisation of land. The participants pointed out witchcraft and dishonesty as the main challenges facing land-sharing practice in the study area. The data shows that some participants were of the view that food-sharing is no longer practised in the study area, instead, it forms part of the economic system. This sentiment is reinforced by Gurven and Jaeggi (2015) who argue that food-sharing is a human universal trait that forms the centrepiece of economic and social life in hunter-gatherer societies.

Relationship between food sharing and social cohesion.

When the participants were asked whether food-sharing promotes social cohesion, the majority agreed that indeed food-sharing promotes social cohesion. This implies that the local farmers know they can get the help they need from other farmers. This reduces crop thieving in the communities. However, this question attracted different views as some of the participants agreed while others dissented that food-sharing promotes social cohesion. The following views and experiences from the participants illustrate this contention.

“Food-sharing promotes social cohesion because it makes us a solid society where every farmer is uplifted by other farmers to grow their business. Everyone in the village who practice food-sharing gets to have a sense of belonging. For us who share the food we have a common understanding”. **(Participant 2)**

“We have strong relationships more than those who do not share, and during sharing process, we have long conversations which make it easy for us to bond. I can say this practice encourages people to speak out when they are in poverty and it promotes social cohesion in a manner that everyone in the community knows that they have someone on their back, especially for those who are poor”. **(Participant 4)**

“It helps one to know where to go in times of hardships. This is because when you are hungry you only ask for help from those who share with you. As we share food, we get to know each other, and it is easy for us to ask for help from others when you help each other. It also increases opportunities for people to be united and be able to help each other to fight poverty”. **(Participant 8)**

“People were so generous to each other before, but now you only find very few who still have social relations. After sharing it is easy to bond with each other, but now we are no longer doing this practice as before this is because of witchcraft. This practice has kept us together for so long but now we do not see eye-to-eye only those better families who still share”.
(Participant 9)

“I am a businessman, and I am interested in the profit. I sell my harvest cheaper and people never complained so I think I have strong relationships with my customers and people do not travel to get my products”. **(Participant 3)**

As demonstrated above, food-sharing plays a huge role in promoting social cohesion. This finding is reinforced by Haukanes (2008) who argue that food is essentially about relationships. The flow of food may serve to create intimacy, closeness, or familiarity. The data shows that there was a relationship between food-sharing and social cohesion, as revealed by the various responses from the participants. Notably, food-sharing does not only have ritual importance, but also a very precise role in keeping the community together (Souisa, 2019). Gassner, Harris, Mausch, Terheggen, Lopes, Finlayson and Dobie (2019) state that, poverty and hunger remain the biggest development challenges of our time. Food security and undernutrition remain problematic throughout the less developed world despite the claim that ‘all developing regions except Sub-Saharan Africa reached the Millennium Development Goal of halving poverty between 1990 and 2015. In the same vein, Davies (2019) argues that food-sharing is a foundational human practice at the very core of human civilisation, helping to secure sustenance, cement social relations and permit role specialisation within societal groups. By contrast, however, the current findings indicate that this practice is faced with challenges such as alleged witchcraft, a vice that was absent in the olden days. Further, the participants claimed that this practice is being abandoned and a commercial aspect of it has emerged. These findings are reinforced by Davies (2019) who argues that selling of food remains a common form of exchange for food-sharing initiatives, with about a third population engaged in monetary transactions of some sort. Davies (2020) argues that there is a commercial end of the sharing spectrum that has caught media attention in other arenas of sharing such as mobility and accommodation, while gifting has been seen to dominate many urban food-sharing landscapes.

5. QUANTITATIVE ANALYSIS

Findings of Research question One

Local farmers practice food-sharing in Ntafufu Location

Table 1: Food-sharing is practised to bring local farmers together.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|-----------------------|-----------|---------|---------------|--------------------|
| Valid | Agree | 25 | 58.1 | 58.1 | 58.1 |
| | Disagree | 8 | 18.6 | 18.6 | 76.7 |
| | Neutral | 2 | 4.7 | 4.7 | 81.4 |
| | strongly agree | 8 | 18.6 | 18.6 | 100.0 |
| | Total | 43 | 100.0 | 100.0 | |

From Table 1 above, it is apparent that the majority (58.1%) of the respondents agreed that food-sharing is practised to bring farmers together. Drawing from the data obtained through the questionnaire, 76.7% (58.1 % agree + 18.6 % strongly agree) of the participants are of the view that food-sharing is practised by bringing local farmers together. This sentiment is reinforced by Simão and Seibt (2014) who argue that in the communal sharing model, relationships are categorized as strong bonds constituted through solidarity and unity, applying the principle of ‘‘all for one, and one for all’’. The other 18.6% of participants disagreed with this view that food-sharing is practised by bringing local farmers together, and 4.7% of the participants were neutral.

Table 2: Food-sharing alleviates poverty in Ntafufu

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|-----------------------|-----------|---------|---------------|--------------------|
| Valid | Agree | 20 | 46.5 | 46.5 | 46.5 |
| | Disagree | 7 | 16.3 | 16.3 | 62.8 |
| | Neutral | 2 | 4.7 | 4.7 | 67.4 |
| | strongly agree | 14 | 32.6 | 32.6 | 100.0 |
| | Total | 43 | 100.0 | 100.0 | |

The data in Table 2 indicates that 82.7% (46.5% agreed + 32.6% strongly agreed) of the respondents felt that food-sharing alleviates poverty in the study area. This finding is reinforced by De Janvry and Sadoulet (2010) who noted that agricultural growth has long been recognized as an important instrument for poverty reduction. The other 7% of the respondents disagreed that food-sharing has a poverty alleviation function in the study area, and 2% of the respondents were neutral.

Table 3: Food-sharing is practised to avoid or prevent societal conflicts.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|-----------------------|-----------|---------|---------------|--------------------|
| Valid | Agree | 18 | 41.9 | 41.9 | 41.9 |
| | Disagree | 11 | 25.6 | 25.6 | 67.4 |
| | Neutral | 5 | 11.6 | 11.6 | 79.1 |
| | strongly agree | 9 | 20.9 | 20.9 | 100.0 |
| | Total | 43 | 100.0 | 100.0 | |

The results in Table 3 indicate that most of the respondents (62.8%) agree that food-sharing can prevent societal conflicts. This is because it brings members of society together. However, 25.6% of the respondents disagreed with this view. Perhaps, their disagreement is informed by their experiences. Lastly, 11.6% of the respondents did not agree or disagree therefore they were neutral.

Findings of Research Question Two

The process of food-sharing

Table 4: Local farmers still practice food-sharing

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|--------------|-----------|---------|---------------|--------------------|
| Valid | agree | 24 | 55.8 | 55.8 | 55.8 |
| | disagree | 14 | 32.6 | 32.6 | 88.4 |
| | neutral | 5 | 11.6 | 11.6 | 100.0 |
| | Total | 43 | 100.0 | 100.0 | |

The data in Table 4 indicates that 55.8% of the respondents agreed that food-sharing is in existence, while 32.6% disagreed, and 11.6% were neutral. The finding that food-sharing is actively practised in the study area is supported by Davies (2019) findings that the practice is performed in urban settings in the 21st century, although it is still practised in the quiet spaces of home life and through celebratory fists with friends and family. Furthermore, Davies (2019) states that food-sharing is also increasingly facilitated by new technologies such as Apps, Websites, and other social media platforms.

Table 5: All local farmers are practising food-sharing in Ntafufu.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|--------------------------|-----------|---------|---------------|--------------------|
| Valid | Agree | 10 | 23.3 | 23.3 | 23.3 |
| | Disagree | 26 | 60.5 | 60.5 | 83.7 |
| | Neutral | 3 | 7.0 | 7.0 | 90.7 |
| | strongly agree | 2 | 4.7 | 4.7 | 95.3 |
| | strongly disagree | 2 | 4.7 | 4.7 | 100.0 |
| | Total | 43 | 100.0 | 100.0 | |

From Table 5 above, the majority of respondents (65.2%) disagreed that all local farmers are practising food-sharing in the study area. On the other hand, 7.0% were neutral, and 28% agreed that all local farmers are practising food-sharing.

Table 6: Local farmers exchange food during harvest

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|-----------------|-----------|---------|---------------|--------------------|
| Valid | agree | 32 | 74.4 | 74.4 | 74.4 |
| | disagree | 4 | 9.3 | 9.3 | 83.7 |
| | neutral | 7 | 16.3 | 16.3 | 100.0 |
| | Total | 43 | 100.0 | 100.0 | |

The results in Table 6 shows that 74.4% of the respondents agreed that the exchange of food takes place during harvest. However, 9.3% disagreed and 16.3% were neutral. These results are in line with the findings of Ready and Power (2018) who found that in Kangiqsujuaq, harvesting, and sharing of traditional country foods, such as seal, arctic char, and beluga are a major part of everyday life. Thus, food-sharing occurs both as communal meals and as gifts of country foods exchanged between family, friends, and neighbours.

Table 7: Local farmers share home-cooked meals as well.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------------|-----------|---------|---------------|--------------------|
| Valid | Agree | 26 | 60.5 | 60.5 | 60.5 |
| | Disagree | 9 | 20.9 | 20.9 | 81.4 |
| | Neutral | 1 | 2.3 | 2.3 | 83.7 |
| | strongly agree | 6 | 14.0 | 14.0 | 97.7 |
| | strongly disagree | 1 | 2.3 | 2.3 | 100.0 |
| | Total | 43 | 100.0 | 100.0 | |

Table 7 demonstrates that 74.5% of the respondents were in agreement that local farmers also share home-cooked meals, whilst 23.2% of the respondents were in disagreement with this view, and 2.3% were neutral. This sentiment is reinforced by Beatty, Cheng and Tuttle (2015) in their study on food-sharing. They found that informal food-sharing includes getting food (raw material and/or fully cooked meals) from friends or relatives for home consumption, eating at someone else’s home, and sending children to someone else’s house to eat.

Findings of Research Question Three

How does food-sharing promote social cohesion in the study area?

Table 8: Food-sharing has brought local farmers together

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------------|--------------|---------|---------------|--------------------|
| Valid | Agree | 33 | 76.7 | 76.7 | 76.7 |
| | Disagree | 7 | 16.3 | 16.3 | 93.0 |
| | Neutral | 2 | 4.7 | 4.7 | 97.7 |
| | strongly disagree | 1 | 2.3 | 2.3 | 100.0 |
| | | Total | 43 | 100.0 | 100.0 |

A positive correlation was found between food-sharing and social cohesion. This is revealed in Table 8 with 76.7% of the respondents agreeing that food-sharing brought local farmers together in the study area. On the contrary, 4.7% of the respondents were neutral and 18.6% disagreed. This is supported by Davies (2019) in stating that food-sharing is a fundamental human practice at the very core of human civilization, helping to secure sustenance, cement social relations and permit role specialization within societal groups.

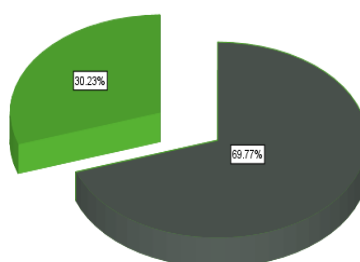


Figure 1: Do you support each other when one needs food?

The results in Figure 5 indicate that local farmers help each other when one needs food. This suggests that people bear each other burdens and sufferings. This is supported by 69.77% of the respondents who agreed. On the contrary, 30.23% of the respondents do not help each other need arises.

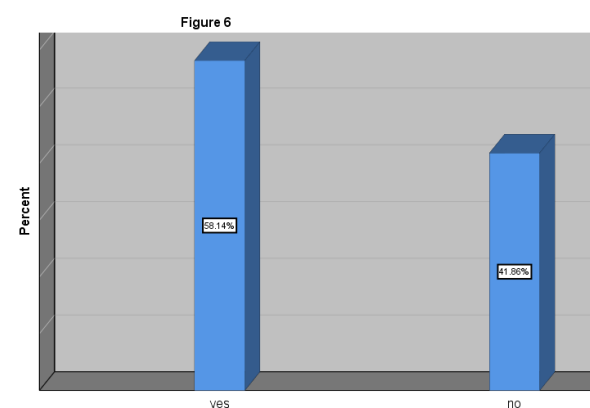


Figure 2: The influence of food-sharing on social bonds

The results illustrate that 58.14% of the respondents believed that food-sharing builds social bonds. However, 41.86% of the respondents disagree that food-sharing can build social bonds in the study area. These findings are supported by Jaeggi and Gurven (2013) who argue that often, sharing may foster long-term relationships of mutual aid and assistance among people in society.

6. DISCUSSION

Empirical evidence shows there are different reasons for practising food-sharing in the study area. The findings indicated that people practice food-sharing and they claimed that it is part of their culture. Most reactions from the participants revealed that food-sharing promotes social interactions due to the nature of sharing process. The study revealed that food-sharing is the way of life in the study area and this practice existed way before they were born. This implies that it is transferred from one generation to another. However, the findings also indicate that this cultural practice is no longer relevant, and it is being confronted by serious social and economic challenges such as commercialization, mistrust and witchcraft.

Food-sharing is a foundational human practice at the very core of human civilization, helping to secure sustenance, cement social relations, and permit role specialization within societal groups (Jaeggi & Gurven, 2013). Thus, food-sharing is a fundamental form of cooperation that is particularly noteworthy because of its central role in shaping human life history, social organisation, and cooperative psychology (Jaeggi & Gurven, 2013). The current study established that people share food in different ways. This diversity in food-sharing is emphasized by Davies (2019) by stating that while other species also share food, the patterning, persistence, and complexity of food-sharing within human groups means that people share food like no other creature. The study demonstrated that people share food voluntarily without being forced to do so and they share equally. From this point of view and as demonstrated by the findings, food-sharing can promote social cohesion in the community. For instance, the participants in this study claimed that they were united due to food-sharing practices, and as a result, they can uplift one another. Arguably, this is because when two

people share food, they are likely to develop a long-term relationship increase the trust between them, hence creating unity and social cohesiveness.

7. CONCLUSION

The central objective of this study was to find out whether there is or not a relationship between food-sharing and social cohesion in the Ntafufu location, Port St, Eastern Cape Province, Republic of South Africa. The study established that there is a relationship between food-sharing and social cohesion. The practice of food-sharing also alleviates poverty especially the immediate need for basic needs such as food. This observation is supported by both the qualitative and quantitative data collected in this study. Importantly, however, the study also established that the culture and practice of food-sharing is fading out due to social suspicions such as witchcraft and dishonesty, and the emergence of economic emancipation.

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ADOPTION OF INFORMATION AND COMMUNICATION TECHNOLOGY AMONG SMALL AND MEDIUM ENTERPRISES (SMEs): (SCOPING REVIEW)

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ABSTRACT

Information communication and technology (ICT) systems have a real impact on all economic activities and business organisations. The aim of this paper is to analyse the literature on the adoption of information communication and technology among small and medium scale enterprises. As small and medium enterprises evolve, the way businesses operate changes radically because of technological use. This study employs a scoping review method to ascertain the spill-over influence of ICT on SMEs. The study confirms that efficient use of ICT is instrumental to penetrating new target markets. ICTs are essential to the operations of SMEs and are extremely necessary for the survival and growth of economies in general.

Keywords:

Small and medium enterprise, information technology, economy, business.

1. INTRODUCTION

Processes of globalisation and the growth of the knowledge society impacts many economies. The swift growth of information and communication technologies (ICTs) greatly influences the operation of SMEs. The adoption and use of ICTs is associated with increased competitiveness and economic growth for businesses. Organisations and countries that are able to use ICTs effectively influence Small and Medium Enterprises (SMEs) immensely as SMEs are the economic backbone of most emerging and developed economies (Gatautis & Tarute, 2013). ICTs influence business practices worldwide. Different businesses use ICTs in order to enhance their competitive advantage. SMEs are usually considered as the key driver of economic growth in many countries. Information and communication technologies can be understood in terms of their capacity to obtain, store, process and transmit information. ICT is defined as the information processing and distribution services of these technologies to improve capabilities to store and reproduce knowledge (Kutlu & Ozturan, 2008). The role of SMEs on economic growth cannot be overestimated. Many studies conducted on the relationship connecting information technology and economic growth. Most studies affirm that SMEs are key to economic growth globally. In particular, the internet has considerable impact on the

operations of SMEs and it is seen as to have an important impact on the growth of economies in general (Giovanni & Mario, 2003).

2. PURPOSE STATEMENT

SMEs are the engines of economic growth in South Africa (Apulu & Latham, 2010). They play a huge role in in the production of goods and services, reducing unemployment and improving competition and entrepreneurship. SMEs contribute to the GDP and make possible a better standard of living (Samson, 2013). The nature of ICT adoption has been examined extensively. In the African continent, ICT-related studies are limited but has grown in the past ten years (Alam & Noor, 2009). Since SMEs play a major role in growing the economy, it is desirable that they adopt technology more effectively so that they can create innovative products and become more competitive. ICTs have potential for developing SMEs through better integration of ICT in their businesses (Samson, 2013). Current advancements in ICT affect SMEs. However, most SMEs do not use ICTs to enhance their businesses because of limited comprehension of the advantage offered by ICTs. Most SMEs are still using outdated methods to stay competitive. Nevertheless, with the current economic benefits of ICT SMEs should be adopting ICT (Chibelushi, 2008).

3. PROBLEM STATEMENT

According to Fulantelli and Allegra (2003), businesses that fully adopt ICTs produce benefits faster. The adoption of ICTs is considered a way to enable businesses compete at a global stage with improved efficiency and closer customer and supplier relationships. It is a crucial way for SMEs to consider ICT as an essential too in their businesses to take competitive advantage from the global markets. It is crucial for SMEs to embrace to procedures that enhance competitiveness. In the absence of ICTs, modern day businesses are not possible as ICT plays a vital role in on SME operations and is claimed to be crucial for survival and growth of SMEs in general (Apulu & Latham ,2010). Swift (2009) is of the opinion that ICTs impact the flexibility of organisations and businesses. Businesses that adopt ICT tend to perform better in markets through their use of email, ecommerce, banking and advertising. Long-term investment in ICT is essential because of these positive effects.

According to Ongori (2009), ICT is defined as the arrangement of digital technologies which are premeditated to organise, store, process and communicate information in and outside the business. ICTs include, among other things. an ordinary telephone, point of sales systems and computers. ICT is a broad concept including information systems, information technology and digitalisation. Ritchie and Brindley (2005) concur that ICT brings positive change in international information flow, noting that ICTs contribute to the international networking economy. This affords businesses including SMEs a huge spectrum of possibilities for enhancing their competitiveness and getting access to new markets.

4. LITERATURE REVIEW

The advantage of ICT is involved in all economies. ICT enhances the running of operations. It is generally known that that ICT provides many benefits to businesses to make them more efficient, effective and competitive. The use of ICT makes it possible for businesses to obtain, process and

exchange information (Apulu & Latham, 2010). According to Mwithinga (2016), the main reason SMEs find it difficult to grow in spite of government support. SMEs are still challenged by their lack of technological implementation, despite great technological advancement internationally unlike bigger businesses. Many SMEs are risk conscious because of high uncertainties associated with lack of finances, skills and expertise. SMEs fail to capitalise on economies of scale as efficiently as bigger businesses (Ashraf & Murtaza, 2008). Levy and Powell (2005) have noted that ICTs would help a business in storing information and improving communication channels with customers. The world is evolving, becoming small place reliant on information communication and technology.

New technologies have an effect on all aspects of life and the global society and economy is facing a fundamental transformation. In the knowledge economy, businesses are able to produce high technology goods and services and transform human effort materials and other economic resources. Quality, price and services provided by SME must be good so that SMEs are able to compete with established businesses (Herselman, 2003). SMEs are important for countries to grow and stable growth depends on strengthening SMEs (Leboea, 2017). SME are pivotal in improving economies (Herselman, 2003). Furthermore, SMEs are seen as key agents of social and economic growth and are becoming the most important part of the economy because they play a key role in encouraging growth, creating jobs and reducing poverty (Shangase, 2015).

According to Mahadi and Habib (2016), digitalisation has changed the way business transactions are done regarding competition in markets. This change has been made possible by exposure to ICTs. The new knowledge economy has emerged from this. The high growth rate in the US economy contributed to productivity and employment increase was attributed to the adoption of ICT. Currently, new technologies, particularly the interfere with changing international flow of information, trade and investment and competitive advantage of sectors. To understand the issue of ICT it is important to understand what technology is. Briefly, information communication and technology is explained as a set of useful technical means for a particular economy involving the area of microelectronics, information, telecommunications and optoelectronics (Modimogale, 2009).

According to Samson (2013), ICTs do not only comprise of tools and its applications, they involve e processes of development. The current ICT revolution has been rapid and has changed the way individuals and businesses live and act. ICTs do more than change the way people consume products. The availability of technical means, equipment and know-how shapes access to other technical means as ICTs interconnect and rely on another in many ways. For example, the internet is necessary for communication. The author further stated that in last part of the twentieth century, the internet and telephones did not become only the game changer in the communication industry but provided the impetus for growth.

According to Gahtani (2003), the balance between knowledge and resources for first world countries in the world economy has been slow. ICTs are essential tools for improving the lives of people. The world's leading economies today are knowledge based. Economies are shifting from industrial economies to knowledge economies where economic growth is reliant on the country's ability to craft and share knowledge. Computers and the internet have catalysed the growth of the knowledge economy allowing individuals to store and transmit knowledge digitally anywhere in the world. ICTs

enhance globalisation. Each SME needs an ICT literate skills base to be able to innovate and adapt quickly to change so that they can compete in the knowledge economy.

Economies such as India, Taiwan and China have enabling environments to make possible a conducive environment to make sure that SMEs are able to attract new business opportunities. India provides support for IT hardware importation, tax deductions for income earned from software exports and tax holidays. India's ICT sector has enhanced the country's economic growth. Similarly, Zimbabwe is also supporting the ICT sector, by not imposing import duties on ICT products. SMEs who are not ICT based have also benefited by adopting ICTs in their own businesses. ICT allows businesses to communicate fast and improves productivity; they also encourage development of new business opportunities and connecting with international markets (Samson, 2013).

According to Martin and Matlay (2001), SMEs have limited funds and as such usually have low ICT related expenditure to computerise their normal operations (Luccheti and Sterlacchini, 2004). This is because automation needs minimal funds. Furthermore, their ICT operations are often outsourced and rarely involve managers (Udo and Bagchi, 2007). Luccheti and Sterlacchini, (2004) have shown that the convenience provided by ICTs prompts SMEs to be eager in using them to improve their business operations.

ICTs are used to share, distribute, collect and communicate information through the use of computers and networks (Samson, 2013). According to Matula (2007), tools like cell phones, smartphone and social networks, which are also utilised, other than computers to transmit information. SMEs in Zimbabwe need ICT based solutions to grow their customer bases and improve productivity, manage costs and make payments (Ulamini & Denins, 2012). The use of ICTs improves the competence of SMEs across sectors. Bevan (2015) remarks that globalisation intensifies competition. SMEs must become agile. Agility in business is the ability to succeed in ever changing business environments. ICTs part is crucial in the development of commodities.

The use of ICTs results in changes in the manner in which organisational systems operate. It intensifies competitiveness via social networks such as Facebook, WhatsApp and Twitter, which are used to advertise and do business with potential clients. ICTs enhance the competitive advantage of SMEs who use them. Today, SMEs have to use ICTs to cope with technological changes and remain relevant in the market (Ulamini & Denins, 2012).

5. RESEARCH METHOD

5.1 Research design

This study uses a scoping review method. Unlike other methods, the scoping review does not include or exclude studies based on their research designs. This approach permits a broad overview of all topics, concepts and methodologies employed in the domain of the study. The scoping review is used to highlight studies relating to ICT and SMEs (Arksey & O'malley, 2005). Although the number of the publications covering information communication and technology and SME is growing, the data indicates an increase in the quantity of papers published. In the Google Scholar utilising the information communication and technology theme. In 2015, 18 papers were published, rising to 27

in 2016, 35 in 2017, 43 in 2018 and 48 by September 2019. The review approach involves a systematic search but does not imply an analysis of the methodological quality of the studies. This study will review the existing content by summarising available articles in the literature from 2015 to August 2019.

The review focuses on published articles from Google Scholar and Nexus databases from 2015 to 2019. Google Scholar and Nexus Databases displayed 170 published articles. The number on Google Scholar in 2016 increased to 7. Similarly, the number in Nexus databases increased to 16 in 2016. The search for “information communication and technology and SME” articles published in 2017 revealed 15 articles on Google Scholar and 23 in 2017 in Nexus. These numbers increased between 2017 and 2018.

5.2 Research approach

The scoping review method was used to highlight the relationship between ICTs and SMEs. Scoping from 2015 to 2019 in Google Scholar and Nexus database. The following keywords were used for the search: “Information communication and technology” and “SME”. A total of 55 information communication and technology and SME related studies were identified on Google scholar and Nexus database as illustrated in Table A below.

Table A.

| Search Engine | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|----------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Google Scholar | 7 | 11 | 15 | 20 | 23 | 76 |
| Nexus Database | 11 | 16 | 19 | 23 | 25 | 94 |
| | 18 | 27 | 34 | 43 | 48 | 170 |

The study reveals the increase in articles published on information communication and technology and SME between 2015 to 2018. Google Scholar shows more than 38 % of the articles in 2015, 41% in 2016, 44 % in 2017, 46 % in 2018 and 48% in 2019. The total from both databases during the period was 170. This study concludes that 49.9% of published articles on information communication and technology and SME. Between 2015 and 2018, there were annual increases in publications on ICTs and SMEs. The number of published articles displayed by Google Scholar and Nexus was 11 in 2015, rising to 16 in 2016, 19 in 2017 and 23 in 2018. The volume of papers displayed in Google scholar and Nexus Databases was 43.

6. DISCUSSION

SMEs should embrace ICT as it brings constructive changes to their business procedures. ICT enhances consumer contentment. To achieve improved results, SMEs should welcome the latest technological developments like mobile banking and e-marketing. ICTs contribute in many ways to the business development of the SMEs. The adoption of web-based technologies reduces operational costs, improves service to customers and increases response speed between producers and customers. ICT can enhance the financial and operational performances of SMEs. SMEs should fund educating

their employees (Mutula, 2007). They should see ICTs as practical components of their operations like finance or human resources. SMEs should invest in hiring or outsourcing ICT operations to specialists. SMEs in many nations have ICT challenges. The study reveals that ICT adoption has significant positive relationships and influence SMEs business performance. The study concludes that SMEs that adopt ICTs can significantly enhance business performance though minimising transaction and operation costs.

7. CONCLUSION

ICTs play an important role in enhancing SMEs worldwide. SMEs using ICTs are better equipped than those who do not. Although there are challenges facing SMEs in using ICTs, adoption is strongly recommended. Traditional tools to stay competitive. The adoption of ICTs assists SME in improving business performance and their relevance in the knowledge economy as it enables them compete with established businesses. SMEs sometimes prefer traditional tools to stay competitive. However, they are encouraged to use ICTs in order to survive in highly competitive and ever-changing environments. ICTs reduce business costs, improve productivity and strengthen growth prospects. Currently the economy is seen, as a global process. The benefit that ICT provide are enhancement of efficiency, improvement of communication and marketing strategies. These advantages are changes SME, enabling SME to be more rapid, reliable and efficient.

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VALIDATING THE QUALITATIVE DOCUMENT ANALYSIS PROCESS: COHEN'S KAPPA CALCULATION DURING A SYSTEMATIC LITERATURE REVIEW ON STUDENT-ATHLETES' USAGE OF PERFORMANCE MONITORING DEVICES

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ABSTRACT

The cumbersome process of performing a narrative literature review in the write-up of a thesis can be enhanced by conducting a systematic literature review (SLR). The SLR process selects appropriate, sufficient and applicable documents, which can be analysed in numerous ways. In this regard, the analysis has to be performed in a systematic and scientific manner, where the process is transparent, documented and validated. The validation of the document analysis can be done through the calculation of a Cohen's kappa value. The aim of this paper is to provide insight to the Cohen's kappa calculation process that validates the qualitative document analysis performed. During the document analysis, a collaborative revision of codes and definitions, as described in the codebook, was performed by the researcher and promoter. Thereafter, the process involved the researcher performing a second coding process on two arbitrary selected documents, more than seven days apart. The observed agreements and change agreements were entered into the kappa formula to provide the inter-rater reliability value. For the intra-rater reliability value calculation, the promoter coded the selected documents separately, where after the number of observations performed were compared, and kappa was based on the chi-square within the formula. The Cohen's kappa calculation is an essential step in validating the document analysis during a SLR. The paper provides a practical example on how to perform the validation process in using the index of level of agreement between two sets of dichotomous ratings. The use of a SLR at PhD level necessitates the inclusion of techniques to validate the scientific analysis methods applied. The paper provides an example of document analysis validation within the SLR on student-athletes' acceptance and usage of performance monitoring devices.

Keywords: Qualitative analysis, Cohen's kappa, validation, sport, systematic literature review

1. INTRODUCTION

A systematic literature review (SLR) is a qualitative, scientific analysis of research findings and includes evidence-based literature on current available information regarding a particular research topic (Kitchenham *et al.*, 2009). Systematic reviews have increasingly replaced traditional narrative literature reviews in PhD theses as a rigorous way to summarise research evidence (Hemingway, 2009). The inclusion of expert author documentation and analysis in a SLR serves to incorporate different theoretical viewpoints to evaluate and summarise information on a phenomenon for an integrated literature review (Merriam, 2009). Hemingway (2009) explains that a SLR ensures a level of rigour in reviewing literature evidence, which provides a credible and valid research literature overview. Accordingly, a SLR can improve the overall quality, reliability and validity of a research study when the literature search, data analysis and reporting are able to address the research question (Kitchenham & Charters, 2007). Jesson and Lacey (2006) add that a SLR focuses on the cohesive argument pertaining to the full context of the research study in an integrated manner. Although numerous theses' narrative reviews provide commentaries of the literature, there are often downfalls in using the narrative method (Hemingway, 2009). In this regard, narrative reviews differ from a SLR in that they are not led by a peer-reviewed protocol, and therefore it is often impossible to replicate the findings. Likewise, narrative reviews often build the review case and problem statement from literature to support author beliefs, and documents are selected and cited to substantiate own views (Hemingway, 2009). The inadequacy of narrative reviews has been commented on, where reviewers were reaching different conclusions from a similar research base, and findings reported more on the underlying assumptions and beliefs of reviewers (Teagarden, 1989; Spector & Thompson, 1991). In addition, narrative reviews often struggle to summarise the most current state of knowledge and intentionally or unintentionally exclude specific sources. Therefore, the same rigour needed to collate secondary research (where other research studies are the objects of study) should be performed as is expected from primary research (original study such as performing interviews) (Merriam, 2009). Primary qualitative research follows a robust process to ensure trustworthy and valid findings, and therefore secondary research should apply similar processes and protocols to establish a scientific and valid evaluation of current literature on the research topic (Teagarden, 1989; Spector & Thompson, 1991).

Systematic reviews follow a variety of possible processes that are divided into three major phases, namely planning, compiling the review and reporting (Brereton *et al.*, 2007). Kitchenham (2004) further divides the SLR process into six key steps, which include: i) development of a review protocol, ii) identification and extraction of research, iii) quality assessment, iv) qualitative content analysis, v) synthesis, and vi) report. To minimise the risk of researcher bias, a review protocol has to be developed that specifies the steps and methods for compiling the SLR (Kitchenham, 2004). The identification and extraction of research include identifying keywords and searching electronic databases using the keywords. In addition, research documents should be refined according to inclusion and exclusion criteria, and evaluated for quality assessment using the hierarchy of evidence (Kitchenham, 2004). The qualitative content analysis should also follow a systematic process, where the constant comparative method (CCM) is followed during the coding process (Boeije, 2002). Therefore, the development of a code book should be performed to assist the coding and constant

comparison performed (DeCuir-Gunby *et al.*, 2011). The analysis employed has to be evaluated and substantiated, which can be done through the calculation of Cohen's kappa (Wood, 2007). The synthesis of codes, categories and themes should be done in an understandable and visual manner, where data networks are often portrayed to report on the emerging themes and findings of the study (Jesson *et al.*, 2011). The above-mentioned six steps provide a systematic protocol to perform a SLR and numerous studies have commented on the enhancement of this process (Teagarden, 1989; Spector & Thompson, 1991; Hemingway, 2009). Even though all six steps are important, the focus of this study is on step iv of the qualitative content analysis and specifically the validation process of the analysis performed. In this regard, the calculation of Cohen's kappa to determine the inter-rater and intra-rated validity will be elaborated on.

2. COHEN'S KAPPA

Cohen's kappa is defined as "an index of inter-rater reliability commonly used to measure the level of agreement between two sets of dichotomous ratings or scores" (Wood, 2007). The purpose of Cohen's kappa is to determine the consistency in ranking, assigning or classifying items into mutually exclusive categories (DeCuir-Gunby *et al.*, 2011). Well-designed studies have to include procedures that measure the agreement among various data collectors and analysts (McHugh, 2012). Since there are many potential errors that can be made during a qualitative document analysis, the use of a rigorous coding method and calculating the Cohen's kappa aim to reduce the extent of possible analysis inaccuracies (McHugh, 2012). Two categories of reliability regarding data collectors and analysts reflect reliably across multiple raters, which are inter-rater reliability as well as reliability of a single data collector or analyst, which is referred to as intra-rater reliability (Wood, 2007; McHugh, 2012). Intra-rater reliability indicates whether an individual will interpret the same data and record a similar value for the variable each time the data is collected or analysis performed. McHugh (2012) posits that it may be presumed that an individual will behave similarly to the phenomenon every time the data is collected or analysed; however, research indicates the fallacy of the assumption. The inter-rater agreement refers to the agreement among data collectors/analysts, with previous research indicating that there will be a level of agreement among collectors/analysts (McHugh, 2012). Reliability statistics should account for the random agreement, and for this reason Jacob Cohen developed the key statistic in the 1960s for the measurement of inter-rater reliability, named Cohen's kappa (McHugh, 2012). The aim of this paper is to provide insight into the Cohen's kappa calculation process followed during the SLR process on student-athletes' acceptance and usage of performance monitoring devices, as part of a PhD study. The focus of this paper is to elaborate on the SLR process followed, including the explanation of the Cohen's kappa calculation process during the document analysis. In this regard, the paper will not adhere to the normal methodology and findings format of an empirical paper. The paper will rather focus on explaining the first four steps in following a SLR protocol, as well as, in particular, elaborate on step four within the six steps followed. Step four includes the validation of the qualitative content analysis. The qualitative methods employed have to be trustworthy and validated, and therefore the methodology followed is explained to shed light on this process for other post-graduate students to follow suit.

3. METHODOLOGY

This study is conducted from the functional paradigm of social theory. This pragmatic approach assumes human inquiry to understand a phenomenon and provide possible solutions and clarifications within a specific social setting (Burrell & Morgan, 1979). In this regard, the study followed a qualitative approach to the document analysis with a specific process identified and applied.

3.1 Research design

This study performed a SLR, following specific steps to ensure unbiased actions within a rigorous process. This study, as part of a larger thesis, employed the following steps in performing a SLR: i) development of a review protocol, ii) identification and extraction of research, iii) quality assessment, iv) qualitative content analysis, v) synthesis, and vi) report. Therefore, in order to provide context for the explanation of the Cohen's kappa calculation as part of the qualitative content analysis process during the SLR, the first four key steps followed during a SLR will be discussed and thereafter the relevant Cohen's kappa calculations, as part of step four. In this paper, only four of the six steps will be discussed, including the first few steps in the development of a review protocol, identification and extraction of research, quality assessment and qualitative content analysis.

3.1.1 Development of a review protocol

The review protocol was developed together with the supervisor of this study, as well as an information specialist in the Faculty of Economic and Management Sciences on the North-West University's Vanderbijlpark Campus. The first step was to develop a list of key terms that were then discussed between the supervisor and the researcher, as well as the information specialist and the researcher (Jesson *et al.*, 2011). The following keywords were selected in line with the objectives of the study: "athletes", "monitoring devices", "sport technology", "acceptance", "performance enhancement", "benefits", "disadvantages", "marketing", "consumer attitude", "functionality", "compatibility", "visual attractiveness", "social image", "technology" and "perceived value". Thereafter, appropriate databases for the different categories were identified and documented, along with specific criteria created for the inclusion and exclusion of documents. The selection criteria indicated that only primary sources that provided clear and precise evidence of the research questions and topic were included (Kitchenham, 2004). Several elements influenced the selection process, including journals, research design, language and the publication date (Kitchenham, 2004). The criteria specified that publications exclusively between 2006 and 2020 were included in the literature searches to obtain valuable information pertaining to the most recent findings concerning the different topics. English, full-text, academic and peer-reviewed papers in accredited journals and conference proceedings available to the researcher that comprised the specified keywords in the title, were selected.

3.1.2 Identification and extraction of documents

Kitchenham (2004) states that the process of a SLR must be replicable and transparent as far as possible. Therefore, the literature review process must be accurately documented for the reader to determine the thoroughness of the literature search and extraction. For the purpose of the thesis,

addenda were included as documentation to the process that was followed during the SLR. The searches were numbered and dated, along with the search engines and specific keywords chosen for this study and entered into the databases. Moreover, the number of hits per search and the articles that were included, were clearly documented, with inclusion and exclusion criteria applied. The following databases were used to conduct searches based on the specified keywords: Scopus, EBSCOHostTM, Google Scholar, Emerald InsightTM, Web of ScienceTM, Academic Search Premier and ScienceDirectTM. Manual searches are strongly advised, and author searches were conducted (Kitchenham, 2004) (Addendum 2.1). The keywords “athletes”, “monitoring devices”, “sport technology”, “acceptance”, “performance enhancement”, “benefits”, “disadvantages”, “marketing”, “consumer attitude”, “functionality”, “compatibility”, “visual attractiveness”, “social image”, “technology” and “perceived value” were inserted within the following databases: Scopus, EBSCOHostTM, Google Scholar, Emerald InsightTM and ScienceDirectTM, while the manual searches commenced through Google Scholar. Author searches for the most well-known authors relating to the specific topic (PMDs) were also carried out and resulted in five articles selected. During the first round of extraction, articles were included that had at least one of the relevant keywords in the title of the document. The searches resulted in 83 articles included for further analysis (Addendum 2.1 & Addendum 2.2 were created for the purpose of the thesis to indicate this documentation process). The second round of extraction included articles with at least two of the keywords or constructs in the abstract (portrayed in the thesis as Addendum 2.3).

3.1.3 Quality assessment

In addition to applying the general inclusion and exclusion criteria, it is also paramount to assess the validity of the primary research documents, which was accomplished by using the hierarchy of evidence (Kitchenham, 2004). The National Health and Medical Research Council of Australia (NHMRC, 2000) suggested five levels of study design hierarchy, where the specified documents were assessed to ensure a minimum standard of quality. The first hierarchy level included systematic reviews, and therefore, in order to improve the level of hierarchy, researchers omitted such documents and instead included individual, primary, and observational studies, which were ranked on level four of the hierarchy (Addendum 2.3) (Kitchenham, 2004). The hierarchy of evidence application resulted in 25 documents that were excluded since they were either secondary sources or systematic reviews. The SLR process followed, offered an improved evaluation of applicable documents, which optimised and finalised the consistency of the document search (Centre for Reviews and Dissemination (CRD), 2009). The documents were evaluated by an expert using the same criterion used in the initial search and a total of eight documents were omitted, since these articles were related to a wider academic setting and were deemed unfit for the purpose of this study. The exclusion resulted in 59 articles being included for analyses (for the purpose of the thesis, this document of the 59 articles to be analysed is referred to in an addendum). As such, a total of 25 articles were excluded during the evidence hierarchy round of extraction and rendered 59 articles for the final document analysis.

3.1.4 Qualitative content analysis

A purposeful approach to qualitative research systemises the work processes and improves the transparency of the applied method (Boeije, 2002). The systematic method strengthens the authenticity and reliability of the qualitative document analysis process (Boeije, 2002). Accordingly, the constant comparative method (CCM) is seen to be foundational in a qualitative analysis, and uses comparisons as the main intellectual tool (Boeije, 2002). The simultaneous comparison and contrast of data and information throughout the analysis resulted in the development of codes and categories, the establishment of code and category definitions, as well as a summary of the content (Boeije, 2002; Tesch, 1990). This allowed the researcher to deductively code the included documents in light of the previous analysed documents (Boeije, 2002). Deductive coding implies the application of reasoning from theory to confirmation of the theory and is often referred to as the top-down approach. Deductive reasoning allowed the researcher to move from a pattern that is logical and theoretically expected to observations that test whether the expected pattern does in fact occur (De Vos *et al.*, 2005). In this regard, the study used the conceptual framework (CF) in Figure 1 with numerous constructs related to the study’s research questions on acceptance and usage of performance monitoring devices, as deductive codes. The CF was compiled after the initial literature review, from which the technology acceptance model (TAM) by Davis (1989) and a theoretical model by Yang *et al.* (2016) were combined. The constructs in the CF were used as deductive codes during the document analysis.

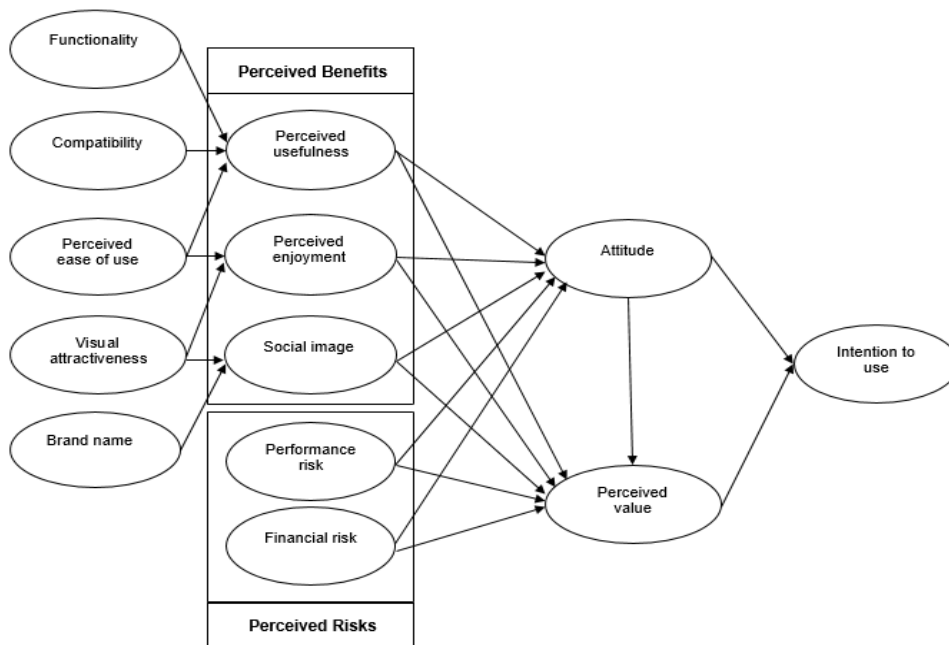


Figure 1: Conceptual framework for student-athletes’ acceptance and usage of PMDs (student compilation)

3.1.4.1 Coding process

For the purpose of this study, 59 selected documents were analysed using the conceptual framework (CF) (Figure 1) as foundation for deductive coding, where specific unit meanings or codes were

assigned to various elements and factors identified within the conceptual framework. The identified documents were examined following the (CCM) coding process in ATLASTI.™ version 8, better known as a computer-assisted qualitative data analysis system (CAQDAS), which created codes and categories for the CCM qualitative analysis. Deductive codes derived from the CF were assigned to the analysed documents, whereas inductive codes were also created for elements and factors identified outside the conceptual framework. Therefore, a dualistic technique comprising deductive and inductive coding was applied during the document analysis. Indicative coding implies the identification of meaning units or codes, which are defined as “tags or labels for assessing units of meaning to the descriptive or inferential information compiled during a study” (DeCuir-Gunby *et al.*, 2011). Codes or meaning units contain specific ideas or views that are able to stand on their own (Côté *et al.*, 1993). With the identification of a code or meaning unit, the researcher studied the documents for further similar emerging fragments or meaning units, and referenced similar codes and relatedness to a specific code or category (Boeije, 2002). In this manner, inductive codes were created and compared to find new information with the aim to conceptualise the subject in addition to deductive codes as derived from the concepts within the CF (Boeije, 2002). A deductive approach suggests that there are particular orders or standards that should be applied to the phenomenon, which in this study refer to the constructs included in the conceptual framework (CF), whereas the inductive approach allows for reasoning moving from particular and specific occurrences to the discovery of patterns (Babbie, 2001). In this regard, during the document analysis, coded data that was not able to be categorised within the CF rendered new data and therefore inductively coded. The inductive coding identified additional constructs and aspects not included within the CF and expanded the current framework (Boyatzis, 1998; Crabtree & Miller, 1999). The combination of the deductive and inductive coding procedure allowed the researcher to create patterns based on unidentified components that are classified within and beyond the predictive codes, which results in a more comprehensive analysis and explanation of the documents (Roberts *et al.*, 2019:2).

3.1.4.2 Codebook creation

A codebook is classified as one of the most important steps in the qualitative document analysis process (Fereday & Muir-Cochrane, 2006). DeCuir-Gunby *et al.* (2011) define a codebook as “a set of codes, definitions and examples used as a guide to help analyse qualitative data”. Berends and Johnston (2005) explain that a codebook aims to promote systematic coding both within and among coders. In other words, the codebook served as a guideline for the interpretation of each code created (Berends & Johnston, 2005). The development of a codebook includes deductive and inductive coding to systematically organise deductive and inductive-driven codes (Ezzy, 2002). During the code creation and codebook development process, attention was given to providing precise code names, adequately defining each code and adding an example from the documents (DeCuir-Gunby *et al.*, 2011). The development of a codebook is a continuous process that may involve codes and definitions modified when a better name or understanding of the code is evident. A detailed codebook results in greater stability for intra-rater as well as for inter-rater reliability in the process of coding (DeCuir-Gunby *et al.*, 2011). The codebook consists of deductive and inductive created codes and Table 3 is an excerpt of the created codebook to provide an understanding of the format and content inserted into the codebook. The excerpt contains only three codes with definitions and examples from

sources, where the full codebook pertaining to the study contains 113 codes and was attached in the PhD as an addendum. The codebook in its entirety cannot be displayed because of page limitations for the publication.

Table 1: Excerpt of the codebook with created codes, definition and example from literature

| No | Code | Definition | Example |
|----|--------------------|---|---|
| 1 | Abandonment | The rejection of products or services, because the product does not perform as expected or does not deliver the expected results. | “However, it must be noted that the adoption of sports wearables is still in the early stage (adopted by 19 percent of the population), and over 30 percent of users abandon their sports wearables after the devices lose their sense of novelty” (Gartner, 2016). (Consumer acceptance of sports wearable technology: the role of technology readiness) |
| 2 | Acceptance | The likelihood that individuals/consumers will accept and purchase a specific device or technology. | “To elicit the factors that make consumers willing to embrace smartwatches is critical” (Baker <i>et al.</i> , 2014). |
| 3 | Adoption | The acceptance and actual use of a specific technology or device. | “It turned out that individual differences such as personal innovativeness, and social perception of how people would perceive them wearing smartwatches were some important factors that affected smartwatch adoption” (Choi & Kim, 2016). |

4. COHEN’S KAPPA CALCULATION

Wood (2007) defines Cohen’s kappa as “an index of inter-rater reliability commonly used to measure the level of agreement between two sets of dichotomous ratings or scores”. The researcher conducted a content analysis between two documents from which the codes, definitions and examples (as within the codebook) were discussed with another researcher. The codes and definitions were evaluated and redefined or refined during the collective review process (DeCuir-Gunby *et al.*, 2011). The aim was to ascertain the correct creation of codes and definitions within the codebook, in order to validate the application of the codes to the documents (DeCuir-Gunby *et al.*, 2011). After the refinement of codes and definition process, the two documents were coded by a qualitative research expert, where after the following formula was used to calculate the kappa (Figure 2).

$$\kappa = \frac{\text{Pr}(a) - \text{Pr}(e)}{1 - \text{Pr}(e)}$$

Figure 2: Kappa calculation (McHugh, 2012)

Pr(a) symbolises the actual observed agreement, while Pr(e) symbolises the chance agreement. The number of observations made across which raters are compared is referred to as the sample size. The chi-square table is used to calculate kappa and the following formula is used to calculate Pr(e):

$$\text{Pr}(e) = \frac{\left[\frac{cm^1 \times rm^1}{n} \right] + \left[\frac{cm^2 \times rm^2}{n} \right]}{n}$$

Figure 3: Kappa calculation: Pr(e) (McHugh, 2012)

Where: cm1 represents column 1 marginal,
 cm2 represents column 1 marginal,
 rm1 represents row 1 marginal,
 rm2 represents row 2 marginal and
 n represents the number of observations.

4.1 Intra-rater reliability calculation

To calculate the intra-rater reliability, the researcher counted the number of codes that were created and assigned during the first two documents’ analysis. A period of seven days passed, where after the researcher coded the documents again with the number of codes created and assigned again counted and placed within the Pr(e) table for calculation.

Table 3: Pr(e) data for Kappa calculation for PMD study

| | | Rater 1(1) normal | abnormal | Row Marginals | |
|------------------|----------|------------------------------|-----------------|--------------------------|-----------------|
| Rater 1(2) | normal | 484 | 13 | 497 | rm ¹ |
| | abnormal | 11 | 60 | 71 | rm ² |
| Column Marginals | | 495 | 73 | 568 | |
| | | cm ¹ | cm ² | | |

Table 3 represents the counted codes created and assigned to the two documents, which were coded seven days apart. Rater 1(1) refers to the first analysis performed by the researcher, where Rater 1(2) refers to the second analysis performed by the same rater on the same two documents after seven days.

$$\begin{aligned}
 \text{Pr}(e) &= \frac{\left[\frac{495 \times 497}{568} \right] + \left[\frac{73 \times 71}{568} \right]}{568} \\
 &= \frac{\left[\frac{246015}{568} \right] + \left[\frac{5183}{568} \right]}{568} \\
 &= \frac{433,13 + 9,125}{568} \\
 &= \frac{442,25}{568} \\
 \text{Pr}(e) &= 0,779
 \end{aligned}$$

Figure 3: Pr(e) calculation for intra-rater reliability for PMD study

After the calculation of the Pr(e) value, the Pr(a) value was calculated using the formula as depicted in Figure 4.

$$\begin{aligned}
 \text{Pr}(a) &= \frac{484 + 60}{568} \\
 &= \frac{544}{568} \\
 \text{Pr}(a) &= 0,958
 \end{aligned}$$

Figure 4: Pr(a) calculation for PMD study

The Pr(e) and Pr(a) values were inserted into the kappa calculation (Figure 5).

$$\begin{aligned}
 \kappa &= \frac{0,958 - 0,7786}{1 - 0,7786} \\
 &= \frac{0,179}{0,221} \\
 \kappa &= 0,809
 \end{aligned}$$

Figure 5: Kappa calculation for PMD intra-rater reliability

The Cohen’s kappa value for the intra-rater reliability was $\kappa = 0.8$, which, according to Viera and Garrett (2005), is a substantial agreement. The agreement indicates that the researcher applied the codes created during the analysis process in a constant manner, which is a necessity to ensure a trustworthy and rigorous analysis process (Campbell *et al.*, 2013).

Table 4: Interpretation of kappa value

| Kappa | Agreement |
|--------------|----------------------------|
| <0 | Less than chance agreement |
| 0.01-0.20 | Slight agreement |
| 0.21-0.40 | Fair agreement |
| 0.41-0.60 | Moderate agreement |
| 0.61-0.80 | Substantial agreement |
| 0.81-0.99 | Almost perfect agreement |

Source: Viera & Garrett (2005)

A kappa value between 0.61 and 0.80 indicates the degree of reliability as a substantial agreement, while a kappa value that falls within the 0.81 to 0.99 range suggests an almost perfect agreement (Viera & Garrett, 2005). The agreement level indicates that all of the concepts applied in the document analysis contribute a strong analytical value to this research study (Anderson *et al.*, 2001). Wood (2007) states that ratings used to draw conclusions about specific individuals should have a high reliability, where a kappa value of 0.80 or 0.90 should be achieved.

4.2 Inter-rater reliability calculation

The same formula to calculate the kappa, as indicated in Figure 2 and used during the intra-rater reliability calculation, was used to calculate the inter-rater reliability. The inter-rater reliability reflects reliability across multiple raters (Wood, 2007). The researcher coded the two arbitrary selected documents, discussed the codes created as portrayed within the codebook with the promoter, where after the promoter coded the same documents. The process of counting similarities and differences in applying the codes within the documents was repeated and the kappa was calculated as indicated by Table 5 and Figures 6 to 8.

Table 5: Pr(e) data for kappa calculation for PMD study

| | | Rater 1 | Row | | |
|------------------|----------|-----------------|-----------------|------------------|-----------------|
| | | normal | abnormal | Marginals | |
| Rater 2 | normal | 301 | 8 | 309 | rm ¹ |
| | abnormal | 13 | 53 | 66 | rm ² |
| Column Marginals | | 314 | 61 | 375 | |
| | | cm ¹ | cm ² | | |

Table 5 represents the counted codes created and assigned to the two documents that were coded by different coders. Rater 1 refers to the analysis performed by the researcher, where rater 2 refers to the promoter who performed an analysis on the same two documents. The calculation of the Pr(e) value for the inter-rater reliability is portrayed in Figure 6.

$$\begin{aligned}
 \text{Pr}(e) &= \frac{\left[\frac{314 \times 309}{375} \right] + \left[\frac{61 \times 66}{375} \right]}{375} \\
 &= \frac{\left[\frac{97026}{375} \right] + \left[\frac{4026}{375} \right]}{375} \\
 &= \frac{258,736 + 10,736}{375} \\
 &= \frac{269,472}{375} \\
 \text{Pr}(e) &= \mathbf{0,718592}
 \end{aligned}$$

Figure 6: Pr(e) calculation for inter-rater reliability of PMD

Below in Figure 7 is the calculation of the Pr(a) value for the inter-rater reliability for the calculation of the Kappa value of the acceptance and usage of PMD during the document analysis step of the SLR.

$$\begin{aligned}
 \text{Pr}(a) &= \frac{301 + 53}{375} \\
 &= \frac{354}{375} \\
 \text{Pr}(a) &= \mathbf{0,944}
 \end{aligned}$$

Figure 7: Pr (a) calculation for PMD study

The Pr(a) and Pr(e) were calculated in Figures 6 and 7 and were therefore inserted into the Kappa formula as indicated in Figure 8.

$$\begin{aligned} \kappa &= \frac{0,944}{1} - \frac{0,718592}{0,718592} \\ &= \frac{0,225408}{0,281408} \\ \kappa &= \mathbf{0,801001} \end{aligned}$$

Figure 8: Kappa calculation for PMD intra-rater reliability

The Cohen's kappa value for the inter-rater reliability was $\kappa = 0.8$, which again, according to Viera and Garrett (2005), is a substantial agreement. The significant agreement demonstrated the researchers' discriminant ability to create and implement codes and to consistently and reliably categorise text (Campbell *et al.*, 2013). Considering the kappa values above 0.8 that were attained, it indicates that the document analysis method was consistently and reliably administered and therefore the researcher could proceed to analyse the remaining documents that were included within the analysis as set out in steps one to three.

5. CONCLUSION

The application of qualitative document analysis methods for enhanced and scientific literature reviews, has become a necessity for PhD students to formulate a comprehensive and integrated review of the most current research available regarding the specific topic. This paper highlighted six key steps that could be used to direct a systematic literature review, with an emphasis on an explanation of the first four steps as well as the calculation of the Cohen's kappa value as part of the fourth step in validating the analysis method. The calculation of the kappa provides an index of inter-rater and intra-rater reliability to measure the level of agreement between two sets of dichotomous ratings or analyses. This indicates that the qualitative analysis method employed by the researcher(s) was evaluated and deemed valid and reliable, and that the document analysis can proceed since a substantial agreement of measure was achieved. Since the SLR method of writing an integrated review as part of a thesis or dissertation is a fairly new occurrence, students need guidance and support to conduct an SLR and validate their document analysis method. This paper proposes to enhance the knowledge of students to validate the qualitative content analysis process as part of the SLR. The knowledge pool on document analysis validation is scarce, and therefore this paper contributes to the existing literature and serves as an example for students to practically employ a scientific method during their own SLR process and document analysis validation.

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THE INFLUENCE OF FINANCIAL SOCIALISATION AGENTS ON STUDENTS' FINANCIAL ATTITUDES: A SOUTH AFRICAN PERSPECTIVE

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ABSTRACT

Financial socialisation agents play an instrumental part in influencing students' financial attitudes; however, there is a literature gap in South Africa on the influence of the financial socialisation agents in students' financial outcomes. Therefore, this study investigated the influence of financial socialisation agents on students' financial attitudes. A quantitative research design was employed, and a closed-ended questionnaire was used in collecting primary data on financial socialisation agents and attitudes. A total of 350 questionnaires were collected from students at a university in South Africa. Financial socialisation agents included parents, peers, teachers and media, while financial attitude referred to statements about money being good or evil and denoting respect and achievement. Exploratory factor analysis and Cronbach's alpha were used to calculate the validity and reliability results. After that, the hypothesised influence of financial socialisation agents and financial attitudes was computed using multiple regression analyses. The empirical results revealed that parents negatively influenced students' attitude that money is good, while the media positively influenced students' attitude that money is good. Also, peers negatively influenced students' attitude to money as evil. These results show that students whose parents taught them about financial concepts are less likely to develop the financial attitudes that money is good. It also showed that students whose peers later taught about financial concepts are less likely to think money is evil. In contrast, students who used media as their source of information about financial topics are more likely to believe that money is good. It is recommended that parents teach students about financial concepts in early childhood to develop positive financial attitudes. Parents should also utilise peers to teach students about financial concepts to assist students in developing a positive financial attitude. However, for parents and peers to teach students about financial concepts, they need to improve their levels of financial literacy through a personal financial education.

Keywords: Financial socialisation agents, Financial attitudes, Money attitudes, Students.

1. INTRODUCTION

There has been an increasing interest among financial planning researchers in improving students' financial behaviour (Chowa & Despard 2014: 376; Serido Shim & Tang 2013:287). This research has mainly been sparked by students demonstrating irresponsible financial behaviour such as overspending on credit cards or other risky credit behaviour (Hancock, Jorgensen & Swanson 2013:369; Xiao, Tang, Serido & Shim 2011:239). A similar case is present in South Africa where students demonstrate irresponsible financial behaviour such as tending to disagree with statements

measuring saving money, planning for expenses, and following a monthly budget (Antoni, Rootman & Struwig 2019: 81). In efforts to address irresponsible financial behaviours of students, many financial planning researchers have investigated the predictors of financial behaviour, namely, financial knowledge, attitude and self-efficacy (Sundarasan, & Rahman, 2017:11; Shim, Serido, Tang, & Card, 2015:36; Serido, Shim, & Tang 2013:287).

Previous studies indicate that financial attitude strongly influences students' financial behaviour (Sundarasan, & Rahman, 2017:11; Shim et al. 2015:36; Serido et al. 2013:287). Financial attitudes refer to one's beliefs about money or the meanings that individuals attached to money develop in children and are transferred into adulthood (Archuleta, Britt & Klontz 2016:74). Financial attitudes may be measured as an individual's attitude towards money (also known as money attitudes) or financial practices (Hayhoe, Cho, DeVaney, Worthy, Kim & Gorham 2012:72). This study will measure the students' financial attitude using the money attitude scale. It is because many studies use the money attitude scale to measure attitudes (Jorgensen, Foster, Jensen & Viera 2017:74; Hayhoe et al. 2012:75; Robb & Sharpe 2009:30; Edwards, Allen, & Hayhoe, 2007:95). Money attitude scales are better developed than other financial attitude scales (Mitchell & Mickel 1999:571), and money attitude is also associated with responsible financial behaviour. Lastly, money attitudes are also rooted in the theory of financial socialisation (Manchanda (2015:22). The theory of financial socialisation is used to explain how individuals acquire and develop money attitudes (Danes, 1994:128). Therefore, this study will also use the theory of financial socialisation to explain the money attitude of students. Financial socialisation is seen as how individuals acquire and develop their financial outcomes, such as attitude (Danes, 1994:128).

Financial socialisation agents are responsible for developing students' money attitudes or financial attitudes (Britt, 2016:543). Socialisation agents refer to the "sources of influence" and, in this case, the sources that influence the financial attitudes of students (Moschis & Churchill 1978:599). There are two types of financial socialisation agents, namely primary and secondary socialisation agents. Parents are the primary socialisation agents (Shim, Barber, Card, Xiao & Serido 2009) and peers, school, and media are secondary socialisation agents (Shim et al., 2015: 35). Research also shows that financial socialisation agents such as parents, peers, school and media influence students' attitudes (Wang, Yu & Wei 2012:204). However, rarely are these financial socialisation agents been examined simultaneously in financial planning research, especially in the context of money attitudes in South Africa. Sundaresan and Rahman (2017:12) support that all financial socialisation agents play a pivotal role in embedding positive attitudes towards money. There is a literature gap on the influence of financial socialisation agents on students' financial attitudes in South Africa. As a result, this study will investigate the influence of financial socialisation agents (parents, peers, and school and media) on students' financial attitudes.

2. RESEARCH AIM AND OBJECTIVES

This study aims to investigate the influence of financial socialisation agents on students' financial attitudes. In achieving this aim, the objectives were to discuss the theory of financial socialisation and financial attitudes and determine the relationship between financial socialisation agents and students' financial attitudes.

3. LITERATURE REVIEW

3.1 Financial socialisation theory

Financial socialisation theory has its roots in consumer socialisation (Jorgensen et al., 2017:2) as the concept of financial socialisation is derived from consumer socialisation which was first defined by Ward (1974) and adapted by Danes (1994:128) for financial socialisation theory. After that, Gudmunson and Danes (2011:648) developed a conceptual framework of family financial socialisation, which focused on the family as the main financial socialisation agent. In contrast, Xiao (2016:66) developed the integrated model of the financial socialisation processes, which shows that parents, teachers, peers, and employers influence students' financial outcomes. The integrated model of financial socialisation was used in South Africa by Antoni and Saayman (2021:11) and showed that parents and employers have an influence on the financial literacy levels of individuals. This study will also use the integrated model of financial socialisation. It is assumed that students' financial attitudes will be influenced first by primary (parents) and then secondary (peers, media and teachers) financial socialisation agents. Manchanda (2015:22) supported this thinking, indicating that different financial socialisation agents influence financial attitudes. Children or students learn first about financial attitudes by observing or discuss money attitudes with their immediate family. As they grow older, children or students engage with more financial socialisation agents such as peers and adapts their money attitude to align with socially acceptable financial behaviours and attitudes. (Manchanda 2015:22).

3.2. Financial attitudes

As previously indicated, this study will use the money attitude scale to measure financial attitudes. The most popular scale used to measure money attitudes are the Money attitude scale (MAS) by Yamauchi and Templer (1982). The money beliefs and behavioural scales (MBBS) developed by Furnham (1984) and the money ethic scale (MES) scale developed by Tang (1992:197). There are two versions of MES, the short version with 12 items and the long version with 30 items, but the lateral is more popular (Sohn, Joo, Grable, Lee, & Kim 2012: 974; Tang, Tang & Luna-Arocas 2005: 606). The last scale to be developed is the money scripts by Klontz, Britt, Mentzer and Klontz (2011:5) but are more applicable to clients seeking financial help for money disorders. Only two of these scales, MBBS and MES, are well developed and systematically used in research (Mitchell & Mickel 1999:571). This study adopted MES as previous financial planning researchers (Sundarasan & Rahman 2017:12; Sohn et al., 2012:974). The money ethic scale has six components of attitudes towards money: good, evil, achievement, respect, budgeting, and freedom or power (Tang 1992:200). Table 1 shows the components of financial attitudes.

Table 1: The components of financial attitudes

| Components | Statements | Authors |
|-------------|--|---|
| Good | Refers to individuals believing that money is good, which is important in their lives, highly valued, and attractive. | Sohn <i>et al.</i> (2012:974); Tang (1992: 199) |
| Evil | Refers to individuals believing that money is evil and the root of evil. | Sohn <i>et al.</i> (2012:974); Tang (1992: 199) |
| Achievement | It refers to individuals believing that money is an achievement, is a symbol of success, is the most important goal in my life, and that money can buy everything. | Sohn <i>et al.</i> (2012:974); Tang (1992: 199) |
| Respect | Refers to individuals believing that money makes people respect them in the community, it is honourable, and that money will express your competence and ability. As well as money can bring you many friends. | Sohn <i>et al.</i> (2012:974); Tang (1992: 199) |
| Freedom | Refers to individuals believing that money can allow you to be what you want to be, means power, and gives one independence and freedom. As well as money in the bank, a sign of security. | Sohn <i>et al.</i> (2012:974); Tang (1992: 199) |

Source: Researcher's own construct

3.3 Students financial attitudes

Money attitudes referred to students' symbolic beliefs about money that were learnt from the family. Students may possess different types of money attitudes ranging from good, evil, achievement, respect and freedom (power) (Tang (1992: 199). Sohn et al. (2012:974) found that high school learners scored a high average for money representing effort, which means that students agreed that money was received as a reward for effort. Students also scored high average for the component that money was good, which means that students agreed that money was good, important and attractive. In contrast, the students scored low average on the components that money should be avoided and that money represented evil. This means that the students disagreed that they avoided using money or that it represented evil. This result suggests that the majority of high school students in Korea had a positive attitude towards money. (Sohn et al., 2012:974). Furthermore, in a study by Lemrová, Reiterová, Fatěnová, Lemr and Tang (2014), students scored high for the attitude that money was good and that it represented power. This result means that the students believed that money was attractive or important, and they believed that money represented respect or freedom in their community. They also scored high on the component budgeting, which meant they believed that money should be budgeted or spent carefully (Lemrová et al., 2014:337). However, these students scored low for the attitude that money is evil or achievements, which meant that they disagreed that money was the root of evil and that was is a symbol of success (Lemrová et al., 2014:337). Therefore, these students had a positive attitude towards money as they scored high for the attitude money is good and low for the attitude money is evil. This result meant that students believed that money was a symbol of good and not evil.

3.4 Financial socialisation agents and financial attitudes

Parents have the most influence on the financial outcomes of individuals (Xiao 2016:66). For this reason, parents are considered the primary financial socialisation agents in the lives of children (Mimura, Koonce, Plunkett & Pleskus 2015:73; Bowen 2002:95). In addition, peers, teachers and media are secondary financial socialisation agents since they have less influence on financial outcomes than parents (Gutter, Garrison & Copur 2010:401).

Parents also had a greater influence on student attitudes towards financial practices than work experience and high school courses (Shim et al., 2009:1465). This result means that parents play a major role in influencing 'students' financial attitudes. Similarly, parents are found to influence attitudes towards money. In terms of secondary financial socialisation agents, a peer group comprises individuals who are on average the same age, have social-economic status and have common interests. Peers group functions as a socialisation agent as it provides information to a person about the world or oneself from a different perspective (Berns 2001:62). Many studies have found that using peers as a source of financial information influenced children's financial knowledge. Peers also have a role in influencing students' financial attitudes. In a study by Shim et al. (2015:36), it was found that peers influenced attitudes towards money, financial controllability, and students' financial efficacy. Lachance (2012:539) also confirms that if students perceive their friends as heavy credit cards users, they are more likely to show positive attitudes towards credit. This is because 'students' perceptions of their friends as heavy credit users mean more to them than their parents' perception (Lachance 2012:539). Therefore, peers have a strong influence on students' financial attitudes.

School can act as a socialisation agent when children take personal finance or finance-related classes in high school or university (Shim, Serido, Bosch & Tang 2013:136). This is because schools are responsible for preparing children to participate as adults in the marketplace by providing them with the necessary knowledge, skills and attitudes (Moschis & Churchill 1978). As a result, schools should teach children how to be financially competent by providing household-related financial information and practical assignments (Strautmanis & Hermanis 2013:149). School usually refers to a school's financial education, which is found to influence student financial knowledge (Shim et al., 2009:1466). Thus, students who are exposed to financial or economics education at school tend to exhibit positive financial attitudes, financial efficacy and financial behaviour (Shim et al., 2015:36). Media is also a socialisation agent as it provides information about the world and may influence a child's understanding or self-view about the world (Berns 2001:62). Media includes newspapers, books, radio, television, video, computers, and other communication mediums. Media is considered the most important socialisation agent for improving financial literacy (Sohn et al., 2012:977) as well as a source for learning about savings and investments (Koonce, Mimura, Mauldin, Rupured, & Jordan 2008:24).

Additionally, using media as a source of financial information is also associated with children having a spending plan (Koonce et al., 2008:24). Media may also influence the attitude of students. Rasure (2015:102) found that students who watched reality television demonstrated different financial behaviour, especially if the financial behaviour was socially accepted. Viewing an advertisement on television also influences children's attitudes. For example, Chia (2010:12) found a relationship

between children's viewing of advertising and their materialistic values. Furthermore, students can also use social media to discuss personal financial concepts and effectively raise their financial concepts (O'Neill, Zumwalt, Gutter & Bechman nd).

4. RESEARCH HYPOTHESES

H¹: Financial socialisation agents influence students' financial attitudes:

H^{1a}: parents, peers, media and teachers influence money is evil.

H^{1b}: parents, peers, media and teachers influence money is good.

H^{1c}: parents, peers, media and teachers influence money is respect.

H^{1d}: parents, peers, media and teachers influence money is freedom.

5. RESEARCH METHODOLOGY

This study adopted a quantitative research design (Gray, 2017:32), as the study will use statistical techniques to test the study's hypotheses. This study's target population was registered undergraduate students studying at a selected university in the Eastern Cape, South Africa. A non-probability criterion sampling was used to select the students as it was difficult, costly and time-consuming to have access to the list of names of the students. A student included in the sample must be a South African undergraduate student studying in the Faculty of Commerce. A total of 350 students completed the questionnaire. Section A contained a nominal scale and collected the demographic information. Section B included a Likert scale ranging from 1– strongly disagree to 5– strongly agree.

An exploratory factor analysis (EFA) was used to measure the construct validity of the measuring instrument. Factors with a minimum of three items with factor loadings greater than 0.5 were accepted (Hair, Black, Babin & Anderson, 2014:115, 123). Cronbach's alpha is the most commonly used reliability measure (Zikmund, Babin, Carr & Griffin, 2010:306) and was used in this study. Factors with a Cronbach's alpha above 0.6 were considered to be reliable (Wiid & Diggines, 2013:238; Zikmund et al., 2010:306). Descriptive statistics were calculated to summarise the means and standard deviations of the variables. Multiple regression analysis (Pietersen & Maree, 2016:272; Wiid & Diggines, 2013:304) was used to test the influence of the financial socialisation agents on financial attitudes.

6. EMPIRICAL RESULTS

The researcher distributed 533 questionnaires, and of those questionnaires, the respondents completed 451 usable questionnaires and 360 questionnaires were found to be suitable for quantitative statistical analysis. Questionnaires answered by postgraduate and international students were excluded as they did not meet the study's criteria. A response rate of 79.82% was achieved. The data was captured, and the datasheet was then uploaded into Statistica version 24, where validity, reliability and descriptive statistics were calculated. Table 2 provides the validity, reliability and descriptive results of financial socialisation agents.

Table 2: Validity, reliability and descriptive results for financial socialisation agents

| Independent variable | EFA factor loadings | | | C.A. α | Descriptive statistics | |
|---------------------------------------|---------------------|---------|--------|------------------|------------------------|------|
| | Items | Highest | Lowest | | μ | SD |
| Financial socialisation agents | | | | | | |
| Parents | 8 | 0.73 | 0.50 | 0.84 | 3.50 | 0.77 |
| Peers | 4 | 0.88 | 0.80 | 0.90 | 2.35 | 1.05 |
| Media | 4 | 0.87 | 0.76 | 0.88 | 3.03 | 1.07 |
| Teachers | 4 | 0.85 | 0.80 | 0.89 | 2.87 | 1.07 |

Source: Author's calculations.

Table 2 shows that financial socialisation agents, namely parents, have had eight items, with the highest factor loading being 0.7. The parent has an alpha of 0.84 and thus is considered valid and reliable. It had a mean score of 3.50 and a standard deviation of 0.77, meaning that most respondents agreed with the statements measuring parents. Peers had four items and the highest factor loading of 0.88. Peers had the highest alpha of 0.90 and thus is considered valid and reliable. It had a mean score of 2.35 and standard deviations of 1.05, suggesting that the respondents tend to disagree with the statements measuring peers. Media had four items and the highest factor loading of 0.87. Media also had an alpha of 0.88 and thus is valid as well as reliable. Most of the respondents were neutral when it came to the statements that measured media. Lastly, teachers had four items and had a factor loading of 0.85. Teachers have an alpha of 0.89 and are considered valid and reliable. Most of the respondents tend to agree with the statements that measured teachers. Table 3 shows the validity, reliability and descriptive results of financial attitudes.

Table 3: Validity, reliability and descriptive results for financial attitudes

| Dependent variable | EFA factor loadings | | | C.A. α | Descriptive statistics | |
|------------------------------|---------------------|---------|--------|------------------|------------------------|------|
| | Items | Highest | Lowest | | μ | SD |
| Money is good | 7 | 0.67 | 0.51 | 0.70 | 3.23 | 0.72 |
| Money is evil | 3 | 0.75 | 0.71 | 0.69 | 2.43 | 0.97 |
| Money is respect and freedom | 9 | 0.70 | 0.54 | 0.84 | 3.58 | 0.71 |

Source: Author's calculations.

Table 3 shows that seven items measured the attitude related to money is good and have the highest factor loading of 0.67. The alpha for money is good is 0.70 and has a mean score of 3.23. Money is good is considered reliable, and most respondents are neutral about the statements measuring money is good. Money is evil, which was measured with three items. Money is evil has three items that had the highest factor loading of 0.75 and alpha of 0.69. Money is evil is considered a valid and reliable scale in the study. Money is evil had an average of 2.43 and a standard deviation of 0.97, meaning that most respondents disagree with the statements that measure money. Money is respect, and money

is achievement was expected to load as two separate concepts; however, the EFA results showed that these factors are one concept and were renamed as money is respect and achievement. Money is respect, and achievement was measured by nine items and had the highest factor loading of 0.70. Money is respect and achievement also had an alpha of 0.84, meaning that it is valid and reliable. Most of the respondents agree with the statements measuring money is respect and achievement ($x = 3.58$) and a standard deviation of 0.71. Table 4 shows the operational definition of financial socialisation agents and financial attitudes.

Table 4: Operational definitions

| Financial socialisation agents | Items | Definition |
|---------------------------------------|--------------|--|
| Parents | 9 | Refers to parents teaching their children about spending behaviour, restricting their children's spending, teaching their children how to manage their money. It also refers to parents knowing how their children spend money, teaching children about savings, being smart shoppers, reviewing their children's spending habits and teaching them about budgeting. |
| Peers | 4 | Refers to learning from friends to check credit records, pay bills on time, avoid overspending, and save money. |
| Media | 4 | Refers to learning from the media to check credit records, pay bills on time, avoid overspending, and save money. |
| Teachers | 4 | Refers to learning from teachers to check credit records, pay bills on time, avoid overspending, and save money. |
| Financial attitudes | Items | Definition |
| Money is good | 5 | This refers to the belief that money is the most important thing in life, which means power and money can bring many friends. |
| Money is evil | 3 | Refers to the belief that money is evil, is shameful and is the root of all evil. |
| Money is respect and achievement | 9 | Refers to the belief that money represents one's achievements, is the symbol of success, is honourable, is a sign of security, helps express one's competence and ability, allows one to be what one wants to be, makes people respect one in the community and gives one freedom |

Source: Own construct

5.3.2 Operational definition and reconstructed hypotheses

Based on the EFA results, the hypotheses of the study were reconstructed as follows:

H¹: Financial socialisation agents influence financial attitudes:

H^{1a}: parents, peers, media and teacher influence money is evil.

H^{1b}: parents, peers, media and teachers influence money is good.

H^{1c}: parents, peers, media and teachers influence money is respect and achievement.

6. Multiple regression analysis results

Table 5 shows the multiple regression results (MRA) for the study's independent (financial socialisation agents) and dependent (money attitudes) variables.

Table 5: Multiple regression analysis results of the study

| Dependent variable: Good R²= 0.03 | | | |
|--|-------------------------------|----------------|-----------------------------|
| Financial socialisation agents | Regression coefficient | t-value | p-value (*p<0.05) |
| Parents | -0.15 | -2.68 | 0.01 |
| Peers | -0.02 | -0.25 | 0.81 |
| Media | 0.12 | 1.97 | 0.05 |
| Teacher | -0.01 | -0.16 | 0.88 |
| Dependent variable: Evil R²= 0.02 | | | |
| Independent variable | Regression coefficient | t-value | p-value (*p<0.05) |
| Parents | 0.09 | 1.69 | 0.09 |
| Peers | -0.15 | -2.50 | 0.01 |
| Media | 0.11 | 1.88 | 0.06 |
| Teacher | 0.09 | 1.69 | 0.09 |
| Dependent variable: Respect and achievement R²= 0.03 | | | |
| Independent variable | Regression coefficient | t-value | p-value (*p<0.05) |
| Parents | -0.09 | -1.64 | 0.10 |

| | | | |
|---------|-------|-------|------|
| Peers | -0.08 | -1.28 | 0.20 |
| Media | 0.11 | 1.88 | 0.06 |
| Teacher | 0.05 | 0.89 | 0.38 |

Source:
Author's

Bold and red = Significant level ($p < 0.05$)

calculations.

Table 5 shows that there is a significant negative relationship ($b^* = -0.15$; $p = 0.01$) between parents and money is good. This significant result suggests that a student who a parent socialised is less likely to believe that money is good. Media also has a significant positive relationship ($b^* = 0.12$; $p = 0.05$) between media and money is good. This significant result suggests that a socialised student by media is more likely to believe that money is good. Also, there is a significant negative relationship ($b^* = -0.15$; $p = 0.01$) between peers and money is evil. This significant result suggests when peers socialise with students, they are less likely to have an attitude that money is evil. Finally, there is no significant relationship between financial socialisation agents (parents, peers and media) and the attitude that money is respect and achievement.

7. DISCUSSION, RECOMMENDATIONS AND CONCLUSION

The empirical results showed that most respondents scored high on the statements measuring the attitude of money is respect and achievement ($x = 3.58$) and low on the statements measuring the attitude of money is evil ($x = 2.43$). This result means that most respondents agree that money is respect and achievement, while most tend to disagree that money is evil. This finding concurs with Lemrová et al. (2014), who found that students scored high for the attitude that money is good and that it represented power. This finding suggests that students believed that money was attractive or important, and they believed that money represented respect or freedom in their community. Similarly, the results of this study are supported by Sohn et al. (2012:974), who found that students disagreed that money represents evil.

The multiple regression analysis results indicated that hypothesis (H_1) of the study is partially accepted since only selected financial socialisation agents (parents, media, and peers) have a significant influence on students' financial attitudes (money is good and evil). This result shows that parents as a primary socialisation agent negatively influence students' financial attitude (money is good) while media as a secondary agent has a positive influence on students' financial attitude (money is good). In contrast to media, parents who taught their children about financial concepts are less likely to facilitate students in developing a financial attitude that money is associated with power, valuable, and a means of attracting more friends. The empirical data also shows that peers negatively influence students' financial attitudes (money is evil). These results are supported by studies that found that parents, peers and media influence students' financial attitudes (Shim et al., 2015:36; Chia 2010:12; Shim et al., 2009:1465).

The researchers recommend that parents be actively involved in teaching their children (students) about personal finance concepts from an early stage (Masnan & Curugan 2016:116). It has been

shown that parents positively influence students' financial behaviours (Antoni et al., 2009). It is also shown that parents negatively influence student's financial attitudes (money is good). Therefore, parents must teach their children (students) about responsible spending behaviour and teach them how to manage money. When parents teach their children, they are less likely to think that money is associated with power, valuable and the most important thing in life (money is good). However, for parents to teach children (students) about financial concepts, they need higher levels of financial literacy. As shown, South African parents have low levels of financial literacy (Nanziri & Leibbrandt, 2018:17).

Therefore, the researcher recommends that financial educators develop personal financial management courses that will target parents to increase their levels of financial literacy. Parents also need to be taught the following concepts: responsible spending behaviour, budgeting, saving behaviour, and transferring positive financial behaviour to their children. Research has shown that it is possible to socialise students about responsible financial behaviour by using different techniques of financial socialisation (Antoni et al., 2009:82). Therefore, parents need to be educated about financial socialisation techniques such as modelling financial behaviour, financial teaching, and monitoring and reinforcing financial behaviour (Antoni et al., 2009:82). At a later stage, students or children are socialised about financial concepts by their peers. It is shown in this study that students who learn about financial concepts from peers are less likely to develop a financial attitude that money is evil. However, students also have low levels of financial literacy to be able to teach each other about financial concepts (Nanziri & Leibbrandt, 2018:17). Therefore, it is recommended that universities in South Africa develop personal financial management courses to increase students' financial literacy levels. Students need to be taught about the following financial concepts: credit or debt management, responsible spending behaviour and saving behaviour and ways to increase their levels of financial literacy. It is also recommended that schools develop personal financial management to increase their involvement in improving the financial literacy levels of students at the school level. Teachers are shown not to influence financial literacy levels (Antoni & Saayman, 2021:11) or the financial attitudes of individuals. However, schools are responsible for preparing children to participate as adults in the marketplace by providing them with the necessary knowledge, skills and attitudes (Moschis & Churchill, 1978).

The study results are limited to the sample of this study and may not be generalisable to the entire South African student population. One of the reasons for this is because non-probability sampling was employed in this study. Future studies should consider using probability sampling to generalise the result of the study to the entire South African student population. This study measured limited financial attitudes; more components of financial attitude need to be included in future studies, such as financial attitudes associated with vigilance and responsible spending. Notwithstanding these limitations, this study contributes to the financial socialisation literature in South Africa by providing evidence of the role of financial socialisation agents in the development of students' financial attitudes in the Eastern Cape.

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DETERMINING THE ROLE OF STRATEGIC ALIGNMENT IN PROJECT GOVERNANCE FOR PROJECT LED ORGANIZATIONS (PLOS)

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ABSTRACT

This study aimed to determine the role of strategic alignment in project governance leading to project success. Using resource-based views the study identified strategic management as key aspect to project success in project-based organization. This research study identified and ranked various items of strategic alignment. Data was collected from 238 project practitioners from which factor analysis was performed to test the construct for strategic alignment. The collected data were subjected to both exploratory and confirmatory factors analysis. The Kaiser, Meyer and Olkin test of sample adequacy (0.60) indicated that the data were suitable to employ in factor analysis. The Strategic alignment construct consisted of 21 items was performed using SPSS and AMOS version 16. The data shows excellent reliability ($\alpha=0.84$) as measured by Cronbach's alpha coefficient. Furthermore, factor rotation and extraction resulted in two sub-constructs: Strategy Formulation (with an explained variance of 27%, and reliability coefficient of 0.85), as well as Implementation and Aligning Resource Allocation of Projects (with an explained variance of 29%, and a reliability coefficient of 0.734). The results have revealed that, for strategy implementation to occur, organizations need to align all management activities such as the development of clear policies, processes for resource allocation to project needs. In conclusion, strategic alignment can benefit an organization in ensuring the attainment of competitive advantage, providing a direction to react to changes in the environment, and enable the success of project-led organizations.

Keywords: Strategic alignment, Project Governance, Project Success, Project led Organization

1. INTRODUCTION

Strategic alignment in project-based organizations is based on two concepts which are; strategic fit and functional integration. While the strategic fit is focused on the need for any strategy to address both internal and external dimensions. The external domain is mainly concerned with external factors that influence an organizations' strategic positioning, the internal domain deals with an organizations' structures, strategic choices, and human resources capabilities deployment (Henderson and Venkatraman, 1993). Kaplan and Norton, (2004) have argued that organizations that are only

organized along functional areas are inefficient while Stanleigh (2006) reports that, only 2.5% of projects implemented by project-based organizations achieve 100% of their strategic objectives. Therefore, project executed by project-based organizations should be well aligned with sponsors' goals for them to be successful. Patel (2013) explained that strategic alignment in project-based organizations provide a framework for decision-making on what is important to an organisation and what is not. Strategic alignment brings harmony in planning and action, therefore aligning project-based organizations with the parent organization, is vital to sponsors and researchers. This article, therefore, views strategic alignment as a process of linking organization structures and resources with its business strategy and business environment. The primary objective of this research was to develop an instrument that can be used to measure strategic alignment for project governance for Project Led Organizations (PLOs).

2. LITERATURE REVIEW

Awwal (2014) in a study identified misalignment between project goals and business strategy goals as the reason behind many projects failure in project-based organizations. Strategic alignment is categorized into two broad areas: projects which are concerned with portfolio selection of projects in preparation for the future of the organization versus the day-to-day operations which is essential for the management of a business. Kaiser, Arbi, and Ahlemann (2015) suggest that effective strategy implementation for projects and portfolios has a strong link to the attainment of business strategy objectives while effective strategy implementation depends on organizational structural alignment with the needs of Project Portfolio Management (PPM).

Unger, Gemünden, and Aubry, (2012) explained that as a control strategy, senior managers seek to terminate projects which are misaligned to the business strategy to attain strategic fit between the project being implemented and the organizational goals. Through strategic fit processes, the value of projects to the organization is ascertained. Therefore, strategic fit can be considered as a key component in project-led organizations preceding other critical success factors. The main objective of aligning projects and business strategy is to extract new and creative strategies which give an organization a competitive advantage (Awwal, 2014). To achieve quality in project termination, senior management needs to make a critical strategic decision that demands having knowledge and skills on how to evaluate and determine projects which have failed to deliver value or no longer fit into the corporate strategy. Effective termination enables managers to conduct effective resource leveling and to reduce conflicts arising from scarce resources distributed over a wide variety of projects and governance (Unger et al., 2012).

2.1 Conceptual framework on project governance

According to Too and Weaver (2014), project governance is part of corporate governance that focuses particularly on governing organization change. The principle of corporate governance is extended to the management of a single project which is referred to as project governance and the management of group projects referred to as governance of projects (Muller, 2009). Though conceptually project governance and governance of projects differ, in this article, it is generally referred to as project governance. Ahola, Ruuska, Artto and Kujala (2014) allude that tension occurs in project-based

Organizations (PBOs) between internal and external project governance. Externally, executives who may be the funders impose decisions on project teams whereas internal governance project managers are preoccupied with meeting the goals set by stakeholders. This creates a challenge for governance in terms of balancing between the project's goals and those of the parent organization. Failure to balance the needs of these two structures may be a potential source of risk to project success. Although strategic alignment is widely acknowledged in research as critical to the success of projects, many organizations are slow in adopting it. The concept of aligning projects with corporate strategy is largely overlooked in research argued Brown, (2015). Small to medium size organizations or owner run organizations are often less conscious of strategy as they focussed on short-term objectives (Bishop, 2016). By using Strategic Project Management (SPM) and Portfolio Project Management (PPM) principles, an organization may be able to ensure proper selection, prioritization, and management of projects.

3. METHODOLOGY

The current study took a positivist philosophical stance and adopted a quantitative research method within a functionalist research approach. The researchers follow a functionalist approach which is associated with world views and values. The researchers utilized objectivism to study Project Led Organisation (PLOs) in a case study environment and adopted a deductive approach as explained by Burrell and Morgan (1979). The study, therefore, was concerned with the explanation of the status quo, social order, social integration, consensus, need satisfaction, and rational choice (Fernandes, Ward and Araújo 2015). As such, the functional approach was most appropriate for studying PLOs as it is pragmatic and seeks to understand the society by generating knowledge that can be applied (action-based research) while studying the relationship between human and their environment as explained by (Burrell and Morgan, 1979).

3.1 Research Designs

The researcher integrated exploratory and diagnostics research designs to achieve a high level of credibility in the research outcomes. At the initial stage, an exploratory design was used to review literature extensively, hence justifying the need for this study. This was followed by a diagnostic design to establish the causal effect between variables.

3.2 Population and sampling

The target population for this study comprised of all project managers, programme managers, and project coordinators working at 327 Project Led Non-Governmental Organisations in Sierra Leone. These Non-Governmental Organisations (NGOs) were chosen because they form the largest entity of Project Led Organisations (PLOs) in Sierra Leone. The choice of the study settings was based on the accessibility to information on these organizations. The sampling frame for this study constitutes 327 NGOs, of which 96 are International Non- Governmental Organizations (INGOs) and 231 are National Non-Governmental Organizations (NNGOs). In Sierra Leone, 80% of these organizations are in Freetown, the capital city, making it easy to access the population (Sierra Leone Association of NGOs Report, 2013).

This study utilised the stratified random sampling process which involves stratification of the population, followed by random selection of subjects from the stratum. Stratified sampling was most appropriate because the Project Led Organizations (PLOs) under investigation were not homogeneous in nature. A stratified random sampling process allows for comparison to be made within a given context as well as describing characteristics of population subgroups. In the current study, a sample size of 345 respondents from both international and national NGOs was selected. The satisfied criteria of sample to a variable ratio of between 5 – 20 times per the number of parameter constructs were used. The sampling frame for this study was 327 NGOs and a total of 77 NGOs were selected using Nassiuma, 2000 formula:

$$N = \frac{NC^2}{C^2 + (N-1)e^2}, \text{ where}$$

N = sample

N = population size

C= coefficient of variation which is 50%

e = error margin which is 0.05

$$N = \frac{327 \times 0.5^2}{0.25 + (326)0.0025} = 77$$

This sample size was divided into the two strata using the formula proposed by Kothari (2004:64).

Sample size for individual stratum (n_i)

$$= n \cdot \frac{N_i}{(N_1 + N_2 + \dots + N_k)}, \text{ for } i = 1, 2, \dots, k,$$

Where N_i is the population size of the i^{th} stratum and n is the total sample size required. Applying the formula, the sample size for the two strata for INGOs and NNGOs are 22 and 55 respectively. To gather for non-response error 40 – 50 % are added to the sample which is equal 145 and 80% representing approximately 92 of PLOs readily avail within the capital city, Freetown. Hence respondents (study elements) who took part in this study were selected from the 77 NGOs and were managers (project managers, program managers, and portfolio managers) as well as project officers/coordinators as shown in Table 1.

Table 1: Sample Table

| | Project/ programme/ portfolio Managers | Project officers/ co-ordinators |
|---------------|---|--|
| INGOs | 33 | 2* 33 = 66 |
| NGOs | 82 | 2 * 115 = 230 |
| Total | 115 | 230 |
| Overall total | 345 | |

Source: Researcher's own data

3.2 Research instrument

A semi-structured questionnaire was developed as a data collection instrument. In congruence with the demands of the quantitative approach, the data was cross-sectional. In this research, the questionnaire items and statements were clear, easy to read, and simple. Pre-qualification such as type of organization or industry allows determination of the respondents' suitability to respond to the questions. Constructs and their related dimensions were kept together. Sequencing of questions was also done based on the level of difficulty, the flow of questions, and questions sensitivity avoided. The questionnaire consisted of three sections and items in each section were developed from an extensive review of the literature. The first section consisted of items on an organization's demographics; section two comprised items covering issues related to organizational enablers which were further divided into seven sub-categories. The third section comprised items of respondents' demographics. In this research, a five-point Likert- scale was preferred over three-point Likert scale due to its ability to improve reliability.

3.3 Data collection

A survey research strategy was adopted in this study as it is associated with the deductive approach. This strategy was used because it allows for the collection of large quantities of data from a sizeable population in a highly economic way. The data collected was cross-sectional from conveniently selected project practitioners in non-governmental organizations in Sierra Leone. The satisfactory criterion of the sample to variable ratio was 5 – 20 times per the number of parameters per construct. Hence, constructs in the survey instrument were subdivided into sub-sections where the largest subsection has 24 items and therefore, the sample should be at least 120 (24x 5) and a maximum of 480 (24x20).

3.4 Data analysis

The choice of data analysis techniques was guided by the research problem and objectives. Both the Statistical Software for Social Scientists (SPSS) and AMOS were used to analyze the data. Descriptive and inferential statistical methods were used to analyze the data. Descriptive statistics such as frequencies, mean, standard deviation, skewness, and kurtosis of the constructs were used to summarise the characteristics of the respondents, the organizations, and respondents' perceptions on the level of importance of various project management practices in project governance. Inferential statistics methods such as exploratory factor analysis, confirmatory factor analysis, and Structural Equation Modelling (SEM) using SEM software package Analysis of Moment Structures (AMOS) version 16, was used to explore statistical relationships between the test items of each factor and among the factors.

In this study the chi-square, the Root Mean Square of Approximation (RMSEA), the Incremental Fit Index (IFI), the Comparative Fit Index (CFI) and Tucker–Lewis Index (TLI) were used to assess the model fit. According to Bryne (2010), a RMSEA value of .08 together with IFI, CFI, and TLI values above 0.9 indicate an acceptable model fit. In addition, composite construct reliability and average variances are used to examine the reliability and validity of the measurement model. Convergent validity was achieved when all constructs exceed the critical level of 0.5. The quality of this research

was determined by access to appropriate sources of data as explained in Saunders, Lewis and Thornhill (2015). The appropriateness of the sources of data was determined by the research question, research objective and research design.

4. RESULTS AND DISCUSSION

In this study, 345 questionnaires were distributed and 258 were returned representing a response rate of 74%. Out of the 258 returned questionnaires, 238 were usable after 18 were eliminated. Due to non-completion of the questionnaire and non-eligible respondents.

4.1. Summation analysis of Strategic Alignment

Twenty-one (21) items were used to measure strategic alignment construct on a five-point Likert-Scale ranging from strongly disagree (scale 1) to strongly agree (scale 5). As evident in Table 1, the mean scores ranged between 3.68 (SA7) and 4.09 (SA10). Most of the items scored average means, which shows a moderate agreement to the statement.

Item 10 “allocating resources based on priority” scored the highest and Item 7 “Established coherent relationship between overall business strategy and the project portfolio”, scored the lowest mean, showing that the respondents strongly agreed with this statement as it was key for implementation of project governance. More emphasis was on implementation than on strategic alignment. This suggests that strategic alignment as it is done at the corporate level may not be a typical practice in the study setting. This confirms the short duration of most projects implemented in the organizations and no, or limited portfolio, of projects. The standard deviation values ranged from ± 0.783 to 0.711.

The results indicate that there was no significant dispersion in the respondents’ responses to the level of importance of strategic alignment for project governance at the portfolio level. The value of Skewness ranged between -0.315 and the highest value of -1.039, which indicates that data was normally distributed, as scores were between -2 or +2 range. The values of kurtosis ranged from .084 to 2.201 indicating a flat distribution because these respective values are less than 7. This implies that assumptions of normality were satisfied.

Table 1: Descriptive Statistics of Strategic Alignment Construct

| Items on Questionnaire | N | Ranked Mean | Std. Deviation | Variance | Skewness | Kurtosis | | |
|------------------------|-----|-------------|----------------|----------|----------|----------|--------|-------|
| SA7 | 238 | 3.68 | 0.711 | 0.505 | -1.014 | 0.158 | 0.743 | 0.314 |
| SA13 | 238 | 3.71 | 1.077 | 1.160 | -1.015 | 0.158 | 0.552 | 0.314 |
| SA21 | 238 | 3.75 | 0.902 | 0.814 | -0.315 | 0.158 | -0.642 | 0.314 |
| SA6 | 238 | 3.81 | 0.645 | 0.416 | -0.755 | 0.158 | 1.814 | 0.314 |
| SA11 | 238 | 3.82 | 0.811 | 0.658 | -0.702 | 0.158 | 0.270 | 0.314 |
| SA3 | 238 | 3.82 | 0.746 | 0.556 | -1.039 | 0.158 | 1.179 | .314 |
| SA19 | 238 | 3.82 | 0.857 | 0.734 | -0.610 | 0.158 | -0.084 | 0.314 |
| SA9 | 238 | 3.84 | 0.994 | 0.987 | -0.846 | 0.158 | 0.140 | 0.314 |
| SA14 | 238 | 3.85 | 0.998 | 0.995 | -0.627 | 0.158 | -0.607 | 0.314 |
| SA8 | 238 | 3.87 | 0.596 | 0.355 | -0.918 | 0.158 | 2.201 | 0.314 |
| SA17 | 238 | 3.91 | 0.871 | 0.759 | -0.437 | 0.158 | -0.489 | 0.314 |
| SA5 | 238 | 3.95 | 0.756 | 0.571 | -0.921 | 0.158 | 1.193 | 0.314 |
| SA20 | 238 | 3.97 | 0.885 | 0.784 | -0.781 | 0.158 | 0.426 | 0.314 |
| SA12 | 238 | 4.00 | 0.793 | 0.629 | -0.658 | 0.158 | 0.287 | 0.314 |
| SA18 | 238 | 4.02 | 0.684 | 0.468 | -0.425 | 0.158 | 0.389 | 0.314 |
| SA1 | 238 | 4.02 | 0.925 | 0.856 | -0.880 | 0.158 | 0.081 | 0.314 |
| SA4 | 238 | 4.04 | 0.805 | 0.648 | -0.957 | 0.158 | 0.961 | 0.314 |
| SA2 | 238 | 4.04 | 0.784 | 0.614 | -1.082 | 0.158 | 1.469 | 0.314 |
| SA15 | 237 | 4.04 | 0.712 | 0.507 | -0.914 | 0.158 | 1.630 | 0.315 |
| SA16 | 238 | 4.09 | 0.788 | 0.621 | -0.888 | 0.158 | 0.848 | 0.314 |
| SA10 | 238 | 4.09 | 0.783 | 0.612 | -0.689 | 0.158 | 0.280 | 0.314 |
| Valid N (listwise) | 237 | | | | | | | |

Source: Researcher’s own data

4.2. Content validity of Strategic Alignment construct

The construct Strategic Alignment consisted of 21 items with very satisfactory Cronbach’s coefficient alpha of .840. Item 1 to item 16 had ITC values of more than .4, which were acceptable.

Table 2: Sorted Rotated Component Matrix in Two-factor Model for Strategic Alignment

| | Factor 1 | Factor 2 |
|------------------------------|----------|----------|
| SA13 | 0.878 | |
| SA14 | 0.792 | |
| SA11 | 0.687 | |
| SA3 | 0.669 | |
| SA12 | 0.659 | |
| SA7 | 0.604 | |
| SA15 | 0.583 | |
| SA16 | 0.547 | |
| SA9 | | 0.770 |
| SA4 | | 0.754 |
| SA1 | | 0.734 |
| SA5 | | 0.661 |
| SA6 | | 0.649 |
| SA2 | | 0.593 |
| SA10 | | 0.580 |
| % Variance explained | 27% | 25% |
| Cronbach's coefficient alpha | 0.851 | 0.734 |

Source: Researcher's own data

Visual inspection of inter-item correlation of all the items shows correlation greater than 0.30 between at least one or more items, which means conditions for factorability of R, are met (Khine, 2013). This implies that the factors accounted for more than 30% relationship among data. Item 1 to item 16, showed significant correlation amongst each other. There were no threats of Multicollinearity (< 0.90). An examination of commonalities shows that none of the items were less than 0.40. All the items had commonalities ranging from 0.667 to 0.849. Therefore, all items were retained at this stage.

A two-factor model was reproduced with a factor loading suppressed at 0.5. Table 4.2 shows the 21 items loading on two factors accounted for 52% of the total variance explained. Internal reliability of the items examined revealed Cronbach's alpha coefficient of 0.851 and 27% of total variance explained. The second factor has a reliability coefficient of 0.734 and 25 % total variance explained. Communalities of all the items were more than 0.4. The two-factor model was preferred as it had a clean structure. In the process item 8, item 17, item 18, item 19, item 20, and item 21 were lost. Factor 1 with eight (8) items was labeled strategy formulation and implementation based on items that had high factor loadings were "item 13: "Ensuring that project portfolio is consistent with organizational capacity" (0.88) and item 14 "Identifying unnecessary projects and terminating them" (0.80). Factor

2 was labeled “Aligning resource allocation to project” considering item with the highest factor loading item 9 “Quick and consistent HR resource allocation” (0.77) and item 4 “Continuous tracking of progress towards set goals” (0.75). Confirmatory Factor Analysis (CFA) for Strategy Formulation and Implementation was performed. The measurement model of the reconstituted strategy alignment construct, labelled “Strategy formulation” was evaluated by examining its uni-dimensionality, convergent and scale reliability. Based on the results of Exploratory Factor Analysis (EFA), the uni-dimensionality of the strategy formulation construct was evaluated. From Table 4.2, it was revealed that the initial model did not fit the data well. Test indicated a significant P value ($<.05$) ($\chi^2= 68.5$, $df=14$, $P=0.000$). Other GOF indices revealed non-significant results. CMN/df had a value of 4.90, which was more than the recommended cut-off point of 0.30. RMSEA revealed a value of .128 which was more than 0.08 and the incremental index TLI was less than the proposed cut off value of 0.9 (IFI = 0.907, TLI = 0.859 and CFI = 0.906). The factor loadings as shown in Table 4.3 ranged from 0.481 to 0.749 which suggests that these items had reasonable magnitude as they exceeded the cut-off of 0.40. Therefore, the items could be retained.

To re-specify the model, further exploration was done on the possible source of the misfit. Examination of implied correlation (Table 4.4) revealed that all the values ranged from 0.263 to 0.540, which suggests that item redundancy was not a problem, since all the values are less than 0.8. From regression (Table 4.5) all the values are significant ($P <0.05$). Further, there is a large standardized residual covariance of 2.1 (> 2) between item 9 and item 10. Therefore, one or both items must be dropped. Items were dropped one after the other until the model represents a good fit to the data. After deleting item 9 with the lowest factor loading “Quick and consistent HR resource allocation”, the model shows a significant improvement ($\chi^2 = 19.04$, $df = 9$, $p = .025$, $CMN/df = 2.116$, $IFI = .976$, $TLI = .959$, $CFI = .975$ and $RMSEA$ values of .69).

Table 3: GOF Indices, Standardized Factor Loading and CR of Strategy Formulation

| Items | Item wording | Initial Standardized Loadings | Final Standardized Loadings | | | | |
|-----------------------------|---|-------------------------------|-----------------------------|------|------|-------|----------------|
| SA6 | Risk assessment | .643 | .662 | | | | |
| SA2 | A clear long term purpose and direction | .711 | .767 | | | | |
| SA1 | A clear mission that gives meaning to our work | .643 | .730 | | | | |
| SA5 | People understand what needs to be done for us to succeed in the long run | .711 | .447 | | | | |
| SA10 | Allocating resources based on priority | .749 | .488 | | | | |
| SA4 | Continuous tracking of progress against set goals | .481 | .743 | | | | |
| SA9 | Quick and consistent HR resource allocation | .721 | | | | | |
| Cronbach's alpha | | 0.84 | | | | | |
| Achieved Fit indices | | | | | | | |
| | | CMIN/ df | IFI | TLI | CFI | RMSEA | Overall status |
| Initial | X ² = 68.5, df= 14, p = .000 | 4.89 | .907 | .859 | .906 | .128 | Misfit |
| Final | Chi square, = 2.24, df, = 2 p =.025 | 2.11 | .976 | .959 | .975 | .069 | Fit |

Table 4.4: Implied Correlations (Group number 1 - Default model)

| | SA9 | SA4 | SA10 | SA5 | SA1 | SA2 | SA6 |
|------|-------|-------|-------|-------|-------|-------|-------|
| SA9 | 1.000 | | | | | | |
| SA4 | .534 | 1.000 | | | | | |
| SA10 | .394 | .404 | 1.000 | | | | |
| SA5 | .347 | .356 | .263 | 1.000 | | | |
| SA1 | .540 | .554 | .409 | .361 | 1.000 | | |
| SA2 | .513 | .526 | .388 | .342 | .532 | 1.000 | |
| SA6 | .464 | .475 | .351 | .309 | .482 | .457 | 1.000 |

Source: SPSS output

Table 4.5: Standardized Residual Covariance (Group number 1 - Default model)

| | SA4 | SA10 | SA5 | SA1 | SA2 | SA6 | SA9 |
|------|--------|--------------|--------|--------|--------|--------|-------|
| SA4 | 0.000 | | | | | | |
| SA10 | 0.938 | 0.000 | | | | | |
| SA5 | -1.192 | -0.296 | 0.000 | | | | |
| SA1 | -0.385 | -1.464 | 0.216 | 0.000 | | | |
| SA2 | 0.362 | -1.015 | 0.153 | 0.813 | 0.000 | | |
| SA6 | 0.499 | -0.484 | -0.382 | -0.307 | 0.842 | 0.000 | |
| SA9 | -0.255 | 2.082 | 1.331 | 0.501 | -1.485 | -0.603 | 0.000 |

Source: Researcher’s output

4.3. Convergent Validity of Strategy Formulation Construct

Further examination of the standardized regression weights (Table 4.6) indicates that all the factor loadings exceeded the cut-off point of 0.4 (ranging from 0.447 (SA5) to 0.767 (SA2) indicating a high positive correlation among items. The t-values of all indicators were above 1.96 (CR > 1.96) which was statistically significant (P < 0.001). This means that all the indicators of the strategy formulation and implementation were significantly related, and the results verified the convergent validity of the construct.

Table 6: Regression Weights and CR for Strategic Alignment Construct
Regression Weights, Standardized Regression Weights

| | | | Estimate | S.E. | C.R. | P | Label | | | | Estimate |
|------|------|----|----------|-------|-------|-----|-------|------|------|----|----------|
| SA6 | <--- | F8 | 1.000 | | | | | SA6 | <--- | F8 | 0.662 |
| SA2 | <--- | F8 | 1.408 | 0.148 | 9.489 | *** | par_1 | SA2 | <--- | F8 | 0.767 |
| SA1 | <--- | F8 | 1.582 | 0.172 | 9.171 | *** | par_2 | SA1 | <--- | F8 | 0.730 |
| SA5 | <--- | F8 | 0.791 | 0.131 | 6.037 | *** | par_3 | SA5 | <--- | F8 | 0.447 |
| SA10 | <--- | F8 | 0.894 | 0.137 | 6.540 | *** | par_4 | SA10 | <--- | F8 | 0.488 |
| SA4 | <--- | F8 | 1.401 | 0.151 | 9.287 | *** | par_5 | SA4 | <--- | F8 | 0.743 |

Source: Researchers own data

4.4. Scale Reliability of Strategy Formulation Construct

Results on the scale reliability of strategy formulation construct as (Table 4.7) reveals that the overall reliability measured by Cronbach’s Alpha was 0.803. This value was rated to be good and did not differ from the value of 0.840 before item 9 was deleted from the proposed construct. The composite construct reliability was 0.78, which was acceptable (> 0.6). The calculated average variance was 0.42, which was moderate although below the suggested cut-off value of 0.59.

Table 7: Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha | |
|---------------------------------|-----------------------------|-------------|
| | Based on Standardized Items | No of Items |
| 0.803 | 0.804 | 6 |
| Composite construct reliability | 0.78 | |
| AVE | 0.42 | |

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| SA4 | 19.91 | 7.659 | 0.659 | 0.472 | 0.749 |
| SA1 | 19.93 | 7.228 | 0.635 | 0.441 | 0.755 |
| SA5 | 20.00 | 8.831 | 0.410 | 0.182 | 0.805 |
| SA6 | 20.14 | 8.629 | 0.580 | 0.360 | 0.772 |
| SA2 | 19.91 | 7.743 | 0.661 | 0.475 | 0.749 |
| SA10 | 19.87 | 8.598 | 0.443 | 0.240 | 0.799 |

Source: Researchers own data

CFA for Aligning Resources Allocation to Project Constructs

Uni-dimensionality of Aligning Resource Allocation to Projects was performed. The EFA factor analysis suggested a sub-scale of strategic alignment labelled “Aligning resource allocation to projects” which consisted of eight items (item 3, item 7, Item 11, item 12, item 14, item 15, item 16). CFA results, as shown in Table 4.8, revealed that the initial analysis resulted in a poor fit to the data. The Chi-Square value was 151.6 with $df = 20$, and $P = .000$, $IFI = 0.821$, $TLI = 0.670$, $CFI = 0.817$, which were lower than the cut off value of 0.900 and $RMSEA = 0.166$ more than the set limit of 0.08. This model was re-specified by examining the regression weights and the residual covariance. As revealed in Table 4.9 the regression weights were significant. Visual examination of the coefficient shows that all the values ranged between 0.550 and 808, which suggests that redundancy was not a problem. Standardized residual covariance did not show any problem as all the values were below the value of 2 (Table 4.10). Since there were no potential problems identified with the items, item-by-item deletion based on lowest factor loading was adopted and evaluation of the model fit at each stage. Following this process, four items were eliminated (item 3, item 7, item 1 and item 15). After the deletion of this item, the model showed a significant improvement. The Chi-Square value was 1.217, $df = 2$, $p = 0.544$, $CMN/df = 0.609$, $IFI = 1.000$, $TLI = 1.000$, $CFI = 1.000$ and $RMSEA$ value was 0.000.

Table 8: Reliability test CFA for Aligning Resource Allocation with Projects

| Item | Item wording | Initial standardized Loadings | Final Standardized Loadings | | | | |
|-----------------------------|---|-------------------------------|-----------------------------|-------|-------|-------|--------|
| SA12 | Flexibility to changes | 0.610 | 0.698 | | | | |
| SA13 | Smooth allocation of resources | 0.808 | 0.676 | | | | |
| SA14 | Implementing corporate strategy through projects | 0.730 | 0.874 | | | | |
| SA16 | Selecting projects in line with strategic goals | 0.570 | 0.627 | | | | |
| SA11 | Line managers adhering to resource allocation | 0.680 | | | | | |
| SA7 | Established Coherent relationship between overall business strategy and the project portfolio | 0.599 | | | | | |
| SA15 | Selecting projects in line with strategic goals | 0.550 | | | | | |
| SA3 | A clear strategy for the future | 0.600 | | | | | |
| Achieved Fit indices | | | | | | | |
| | X ² | CMIN/ df | IFI | TLI | CFI | RMSEA | status |
| Initial | Chi square = 151.1, df= 20, p = .000 | 7.56 | 0.821 | 0.670 | 0.817 | 0.166 | misfit |
| Final | Chi square = 1.217, df = 2, p = .544 | .609 | 1.000 | 1.000 | 1.000 | 0.000 | Fit |

Source: Researcher's output

Table 9: Implied Correlations (Group number 1 - Default model)

| | SA15 | SA7 | SA11 | SA16 | SA14 | SA13 | SA12 |
|------|-------|-------|-------|-------|-------|-------|-------|
| SA15 | 1.000 | | | | | | |
| SA7 | 0.299 | 1.000 | | | | | |
| SA11 | 0.365 | 0.375 | 1.000 | | | | |
| SA16 | 0.327 | 0.337 | 0.410 | 1.000 | | | |
| SA14 | 0.407 | 0.418 | 0.510 | 0.458 | 1.000 | | |
| SA13 | 0.428 | 0.440 | 0.537 | 0.482 | 0.599 | 1.000 | |
| SA12 | 0.336 | 0.345 | 0.421 | 0.378 | 0.469 | 0.494 | 1.000 |

Source: SPSS output

Table 10: Implied covariance (Group number 1 - Default model)

| | SA3 | SA15 | SA7 | SA11 | SA16 | SA14 | SA13 | SA12 |
|------|--------------|-------|-------|-------|-------|-------|-------|-------|
| SA3 | 0.554 | | | | | | | |
| SA15 | 0.174 | 0.504 | | | | | | |
| SA7 | 0.190 | 0.166 | 0.503 | | | | | |
| SA11 | 0.246 | 0.215 | 0.234 | 0.655 | | | | |
| SA16 | 0.200 | 0.175 | 0.190 | 0.247 | 0.618 | | | |
| SA14 | 0.324 | 0.284 | 0.308 | 0.400 | 0.326 | 0.991 | | |
| SA13 | 0.388 | 0.339 | 0.369 | 0.478 | 0.389 | 0.631 | 1.155 | |
| SA12 | 0.215 | 0.188 | 0.205 | 0.266 | 0.216 | 0.351 | 0.419 | 0.626 |

Source: Researcher’s own data

4.5.1. Convergent Validity of Aligning Resource Allocation to Project Constructs

Standardized regressions weights were above the acceptable level of 0.5 as shown in Table 4.11. This indicated that all the items were significantly related to aligning resource allocation to projects. The factor loadings exceeded the cut-off point of 0.5 (ranging from 0.582 to 0.880) indicating high a positive correlation among scale items for the construct. All the t-values were above 1.96 (CR >1.96), which was statistically significant (P<.001). This suggests that all indicators were significantly related to the aligning of resources allocation to the projects.

Table 11: Regression Weights and CR for Aligning Resource Allocation

| Regression Weights | | | | | | Standardized Regression | | |
|--------------------|------|----|----------|-------|--------|-------------------------|-------|--------------------|
| | | | Estimate | S.E. | C.R. | P | Label | Estimate |
| SA12 | <--- | F8 | 1.000 | | | | | SA12 <--- F8 0.698 |
| SA13 | <--- | F8 | 1.318 | 0.144 | 9.176 | *** | par_1 | SA13 <--- F8 0.676 |
| SA14 | <--- | F8 | 1.577 | 0.152 | 10.392 | *** | par_2 | SA14 <--- F8 0.874 |
| SA16 | <--- | F8 | 0.894 | 0.104 | 8.571 | *** | par_3 | SA16 <--- F8 0.627 |

Source: Researcher’s own data

4.5.2. Scale Reliability of Aligning Resource Allocation to Projects

The calculated Cronbach’s coefficient alpha of the proposed construct was 0.803, which was more than the acceptable level of 0.6. The composite construct reliability was 0.84, which was acceptable (>0.6) and the average variance extracted was 0.53, which is above the cut-off point of .05 as shown

in Table 12. All the validity measures revealed that aligning resource allocation to projects was reliable.

Table 12: Reliability for Aligning Resource Allocation to Projects

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---------------------------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| SA12 | 11.65 | 5.595 | 0.625 | 0.403 | 0.756 |
| SA13 | 11.94 | 4.633 | 0.598 | 0.382 | 0.773 |
| SA16 | 11.56 | 5.843 | 0.552 | 0.331 | 0.785 |
| SA14 | 11.79 | 4.468 | 0.736 | 0.543 | 0.691 |
| Cronbach's Alpha | | Cronbach's Alpha Based on | N of Items | | |
| | 0.803 | 0.808 | 4 | | |
| Composite construct reliability | | 0.840 | | | |
| AVE | | 0.53 | | | |

Source: Researchers own data

5. DISCUSSIONS OF RESULTS

Findings from this study revealed, the concept of aligning projects with corporate strategy is largely overlooked as suggested by Brown (2015). However, it is a valuable initiative that provides an organization with the means of achieving its corporate strategies. The higher rating of Item 10, “Allocating resources based on priority”, indicates that resources acquisition and deployment was undertaken at the strategic level is very important to the success of strategic implementation leading to project success. The study also found that project results can only be realized when the strategy has been implemented through the exploitation of hard and soft aspects of project management. The study has shown that the establishment of a clear purpose is essential for strategic alignment. These findings confirm Shenhar’s findings (2009) who suggested that implementing strategic project management is necessary to formally define, articulate and align project strategy with business strategy. The results have revealed that, for strategy implementation to occur, the organization needs to align all management activities such as the development of clear policies, processes for resource allocation to project needs.

6. CONCLUSION

Strategic alignment can benefit the organization by ensuring attainment of competitive advantage, by providing direction to react to changes in the environment, and benefit realization in project-led organizations. Strategic alignment ensures that there is a strategic fit between organizational resources

and organizational goals. It can benefit the organization in attaining returns on investment by assuring benefits on investment. Strategic alignment can be approached from process or outcomes perspectives. This can be achieved through integrating strategic performance measurement and strategic organizational outcomes.

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IMPACT OF COVID-19 ON HOUSEHOLD ENTERPRISES IN NIGERIA

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ABSTRACT

With an estimated 40% of households in Sub-Saharan Africa who rely on household enterprises and an estimated 34 million non-agricultural household enterprises in Nigeria, the Covid-19 pandemic and the subsequent lockdown order have negatively impacted the activities of businesses and enterprises. This study is thus instructive as it helps to analyse the extent of economic burden the pandemic has placed on household enterprises in Nigeria. Data were obtained from the COVID-19 National Longitudinal Phone Survey (COVID-19 NLPS) conducted by the World Bank, with representative sample of 1950 Nigerians. The results revealed that many household enterprises were closed as a result of the coronavirus legal restrictions placed on businesses. We also found that over 70% of the household enterprises recorded lower revenue due to the COVID-19 outbreak and lockdowns. Other reasons that were adduced for the low revenue include inability to access

production inputs, drastic reduction in cash flow, disrupted supply chain, decrease in demand for goods and services, among others. With regard to the effects of COVID-19 infection rate and location on revenue, we learnt that revenues from family businesses were mostly stagnant or dwindled during the period of COVID-19 pandemic irrespective of the number of cases reported in each of the 36 states and the Federal Capital Territory. To this end, it is evident that the effects of COVID-19 containment measures on household enterprises and their welfares are multilayered. As such, policy response should be well articulated and implemented to reduce the socio-economic burden induced by the pandemic.

Keywords: COVID-19, Nigeria, Household Enterprises, lockdown

1. INTRODUCTION

In the past, several outbreaks of diseases have ravaged the world, including the Black Death, Spanish flu, HIV/AIDS, and recently, the novel coronavirus called SARS-CoV-2 (COVID-19) which has disrupted activities at both national and global levels. The report of this new virus first came into the public following a report of a cluster of cases of ‘viral pneumonia’ in Wuhan, People’s Republic of China in December 2019. Globalisation, no doubt, aided the spread of COVID-19 from China to the rest of the world, due to increased air travels across countries and continents, and international trades and relations. The outbreak was pronounced a pandemic by the World Health Organization (WHO) on 11th March 2020 (WHO, 2020a).

While widespread trade created new opportunities for human and animal interactions that sped up epidemics, civilisation characterised by larger and densely populated cities, more exotic trade routes, and increased contact with different populations of people, animals, and ecosystems increased the likelihood that pandemics would occur (LePan, 2020). Globally, as at 26th May, 2021, 167.4 million COVID-19 cases and 3.4 million deaths have been reported since the pandemic began. Like other pandemics, COVID-19 has left many deaths (and counting) in its wake. Before the introduction of vaccines, non-pharmaceutical containment measures such as the use of nose masks, regular hand washing, social distancing, quarantines, bans on public gatherings, border closures, among others, were effective measures to curb the spread of the virus.

In Nigeria, the first case of COVID-19 was detected on February 27 2020. As at 26th May, 2021, Covid-19 positive cases in country have climbed to more than 160,000 cases and over 2,000 deaths, across the 36 states and the Federal Capital Territory (FCT)⁸. The government’s policy responses include the imposition of lockdown measures, suspension of international flights, business closures, working remotely, limited social gathering, quarantine measures, and most recently, Covid-19 vaccinations. These measures impacted on economic activities and largely on household income. Firms in both the private and public sectors resorted to several survival strategies such as adopting a work-from-home schedule for their employees, laying off some workers, increasing their online

⁸ <https://covid19.ncdc.gov.ng/>

presence, diversifying production to meet new demands, etc. Businesses operated by households represent a vital income source to families, and they mostly thrive on daily operations. Thus, the lockdown affected the daily business transactions, impeding the flow of customers, causing a disruption in supply of inputs, and in some cases of a sick family member, led to a decline in productivity. There is an estimated 40% of households in Sub-Saharan Africa who rely on household enterprises (Fox and Sohnesen, 2012), and an estimated 34 million non-agricultural household enterprises in Nigeria, 46% of which are located in urban areas (NBS, 2011). How these enterprises fared during the pandemic is important for policy and practice. To this end, this study seeks to assess the impact of the pandemic on household enterprises in Nigeria. The paper examines the nature of challenges faced by household enterprises due to the pandemic, how the pandemic has affected their revenues. The paper also assesses how the geographical location of the enterprise influenced the effect of the pandemic on the enterprises and the kind of coping strategies put in place by the owners.

The subsequent sections present the review of literature, methodology, results and discussions, and concludes with some policy recommendations.

2. LITERATURE REVIEW

2.1 COVID-19 and the Nigerian Economy

Prior to the pandemic, the Nigerian government had been struggling with weak recovery from the 2014 oil price shock and the GDP growth constricting around 2.3 percent in 2019 (Onyekwena and Ekeruche, 2020), Unfortunately, the global oil prices dropped drastically, exacerbated by an oil price war and the resultant low oil price regime by 60 percent in the middle of the pandemic worsening an already weak Nigerian economy. Resulting from the spread of COVID-19 across countries, global growth has been revised downward with sub-Saharan Africa countries having the highest reduction from 2.9% to 2.0% because of its vulnerability to external shocks (KPMG, 2020).

The sudden susceptibility of Nigerian economy to the influence of external shocks can be identified with increased dependence on crude oil for foreign exchange inflows, fiscal revenue, fiscal deficit funding and capital flows needed to sustain the economic activities (KPMG, 2020). Given that the Nigerian budget for 2020 was initially planned and based on an oil price of US\$57 per barrel, but the emergence of the pandemic has led to the fall in oil price to US\$30 per barrel ring in the market and also oil production target has reduced from initial 2.3mbpd to 1.7mbpd. This rendered the initial budget obsolete and a new one had to be prepared based on the lower oil price as revenues fall below budgetary targets, albeit with more responsibility to curtail the pandemic.

COVID-19 Emergency economic measures: An economic slowdown in 2020 from the fall in oil prices alone would have been detrimental, but it is certainly clear that the fast spread of the COVID-19 pandemic and the connected policy responses across the globe have overwhelming consequences for Nigeria's economy (Andam *et al.*, 2020). In Nigeria, the swift responses from the Nigerian Government and different measures taken to regulate and mitigate the impacts of the pandemic have been crucial in sustaining the economy.

For instance, the government released over a USD 27 million to the Nigerian Centre for Disease Control (NCDC) to act as support for preparedness measures and strengthen laboratory testing and isolation capacity (International Monetary Fund, 2020). Also, recognising the significance of the economic impacts of COVID-19, the Nigerian government has announced fiscal and stimulus measures to strengthen the economy. Other policy measures adopted include reducing government spending and providing about 50 billion naira as credit facility to support households and small and medium-scale enterprises most affected by COVID-19 (Federal Ministry of Budget and National Planning, 2020). At the same time, the reduction of interest rates, tax cuts and tax holidays were institutionalised to lessen the effect of COVID-19 pandemic on small and medium scale enterprises (SMEs) (Olu and Irabor, 2020). The tax holidays were also given to the small businesses, while medium businesses tax rate were reviewed from 30% to 20% (Nnanna, 2020). Further, the Central Bank of Nigeria appropriated even exchange rate system for Inter-Bank market to reduce pressure on foreign exchange rates (Onyekwena and Ekeruche, 2020).

As the global economic shock continues to unfold, the anxiety for businesses remains high (KPMG, 2020), as enterprises and household businesses are being hard-pressed to take drastic measures to cope with this ‘new normal’ in order to remain in business. Similarly, many household enterprises have engaged in strong immediate steps to protect their employees, customers and communities by navigating through the uncertainties of these challenging business times. As businesses rack up losses due to closures, layoffs have already been noticed, as majority of household businesses strive to keep employees on the payroll as their revenue drops drastically (Khan *et al.*, 2020). However, the Nigerian government needs to strategically encourage substantial spending and investment in vital areas of the economy in order to increase economic activities.

The multi-faceted nature of COVID-19 impact across business and operating models has negatively affected household income as economic activities are being slowed down, while businesses operating in the fields of health and pharmaceuticals were presented with much opportunity to increase productive capacity in Nigeria (KPMG, 2020). Also, the advent of various emerging technologies across the business sector and other landscapes has presented significant opportunity for business disruption and scaling, but beyond mere survival, Nigeria’s household enterprises must be prepared to manage the threats of potentially disruptive and unforeseen hostile development in the businesses operating environment and other complexities that may arise in the aftermath of the COVID-19 pandemic.

Socio-economic impact of COVID-19 on household enterprises: Household enterprises or businesses in Nigeria are majorly divided into agriculture, mining, utilities, construction, buying and selling, transport, professional activities, public administration and personal services sectors (National Bureau of Statistics, 2020). As COVID-19 impact is gradually transmitting around the globe, the potential significant adverse effects are on household incomes, demand for goods and services, and the economic outputs. The shortfall and sharp decline in Nigeria’s revenue due primarily to the plunge in oil prices is evident and the substantial unanticipated spending needs associated with COVID-19 in the form of increased health costs, new stimulus packages for businesses, and increased social support for vulnerable households are expected to continue to increase.

Also, the direct impact of measures adopted to mitigate the spread of the COVID-19, specifically the diverse restrictions orders imposed on movement and economic activities by the Nigerian government has reduce(d) economic outputs and household incomes for a large share of the citizens who are unable to do business and earn an income (Andam *et al.*, 2020). A sudden stop in activity, coupled with sharp uncertainty has exposed structural vulnerabilities in certain households and markets (Khan *et al.*, 2020). Consumption level has slumped as many enterprises are closed down and households cut down on major purchases as cash constraints bit harder. Most household businesses are also putting off investment as they wait for clarity on the full cost of COVID-19 (Miller, 2020). Household enterprises are grossly affected directly through measures that prevent consumers from spending money on non-essential goods and services.

Government restrictions have reduced the consumption pattern of non-essential commodities in general, and have also impeded the income-generating capacity of businesses, thus reducing the consumption expenditure (Onyekwena and Ekeruche, 2020), as Nigeria is known to be a growing economy with a large informal sector, which contributes 65 percent of its economic output. Presently, majority of business investment by the household enterprises have been hampered owing to the uncertainties of the COVID-19 pandemic and restricted knowledge about the extent and period of the epidemic.

Recently, the Nigerian Stock Exchange has recorded its worst performance since the 2008 financial crisis due to the pandemic which led to a massive fall in stock prices and the wealth of investors has been eroded. Due to the level of uncertainty associated with the COVID-19 pandemic and the adverse profit outlook on possible investment, household enterprises are holding off on long-term investment decisions (Onyekwena and Ekeruche, 2020), since the economic shock has impeded the income and profit flows of households and businesses.

However, the decisions of household enterprises and their choice of methods in dealing with the COVID-19 pandemic differ, but such should emanate from an understanding of the context and the peculiarity of their business (Gabriel *et al.*, 2020). As such, an effective business crisis response strategy against COVID-19 must be premised on the experience and shared interpretation approaches. For instance, the lockdown measure as an approach towards dealing with the COVID-19 pandemic was not properly implemented to the frustration of the general masses, before some measures were adopted to address the welfare of the citizens (Ozili and Arun, 2020).

The worst-affected were the businesses and industries which either had to operate on a highly inefficient scale or suspend all business activities due to government orders, thereby causing uneasiness and conflict with prior business standards and models (Gabriel *et al.*, 2020). This menace has worsened and contributed to an increased level of anxiety within the country, loss of jobs, low living conditions and lack of trust. The situation has taken serious toll on the functionality and operations of businesses across the globe.

In Nigeria, the commonest coping mechanisms for households during the pandemic include: reduction in food consumption, reduction in non-food consumption, borrowing from friends and family, receiving assistance from friends and family, relying on savings, engaging in additional

income-generating activity, credit purchases, selling of assets (agriculture and non-agriculture). As the economic shocks persist to affect Nigerian households, a larger share of households is reducing their food consumption as coping mechanism has increased. These economic shocks have influenced the prices of both major food items consumed by households and farming/business inputs. As such, many households are opting for coping mechanisms that can have further longer-term negative impacts, such as reducing food consumption and drawing from their savings.

3. METHODOLOGY

Research Design

The data for this study comes from a longitudinal survey research design called Nigeria COVID 19 National Longitudinal Phone Survey's (COVID-19 NLPS). The dataset is part of the World Bank's supported initiative to help five African countries: Nigeria, Ethiopia, Uganda, Tanzania, and Malawi reduce the spread and impact of COVID-19. The initiative involves data collection by high-frequency phone surveys which can be used to inform policies that may help alleviate the effects of the pandemic. Data were collected by trained enumerators through telephone interview with the aim of observing and documenting the socio-economic implications of COVID-19 pandemic. The distribution of sampled households across all the six geopolitical zones in Nigeria is shown in Table 3.1.

Table 3.1: Sample composition of respondents fully interviewed across the Geo-political Zones of the Country

| Rounds/Period | Total | Urban | Rural | North Central | North East | North West | South East | South South | South West |
|---|--------------|--------------|--------------|----------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| Round 1 (April/May) | 1950 | 755 | 1195 | 319 | 328 | 300 | 352 | 279 | 372 |
| Round 2 (June) | 1820 | 717 | 1103 | 296 | 314 | 294 | 329 | 245 | 342 |
| Fully interviewed at 1st and 2 nd rounds | | | | | | | | | |
| Round 3 (July) | 1737 | 686 | 1051 | 279 | 313 | 283 | 311 | 222 | 329 |
| Fully interviewed all 3 rounds | | | | | | | | | |

Research Instrument and Variables used in the Study

This study sets out to investigate the effects of the Covid-19 pandemic on household enterprises in Nigeria. The only instrument of data collection was the household questionnaire. The study instrument contained information such as respondent's demographics, income level, eating pattern, economic activities as well as access to palliatives (safety nets) received during the period of covid 19 lockdown measures. However, the study is particularly interested in variables such as the sector

of business, differences in COVID-19 incidence across the states of the Federation, challenges the business experienced and coping strategies adopted during the period under lockdowns.

Response Rate and Sample Size

The households involved in the survey were drawn from the households interviewed in a previous 2018/2019 General Household survey (World Bank, 2021). All 3,000 households were contacted in the baseline round of the phone survey, however, 69 percent of sampled households were successfully interviewed. The summary of the sampled households across the 3 rounds of survey and the respective response rates is shown in Table 3.2.

Table 3.2: Distribution of Respondents across the Rounds of Survey

| Cycle | Period | No of Household successfully contacted | No of successfully interviewed households | Response Rate |
|----------------------------------|-----------|--|---|---------------|
| 1 st Round (Baseline) | April/May | 2070 | 1950 | 94% |
| 2 nd Round | June | 1852 | 1820 | 93.3% |
| 3 rd Round | July | 1837 | 1790 | 93% |

4. RESULTS AND DISCUSSION

4.1 Engagement in Family Businesses

The biggest and most immediate impact of the lockdowns was felt within the real sector of the economy, particularly among the micro-enterprises that operate in the informal sector and are often run by the households. This category of businesses include shop owners, hairdressers, household businessmen and women, and street vendors, cosmetic product sellers, among others (Shafi et al., 2020). Analysis in Figure 4.1. shows percentage of households operating one type of family business or the other since the beginning of 2020 during the three rounds of survey. The businesses of the majority of the households across the three rounds include trading, goods repairs, hotels and restaurants, followed by personal services, education, health, culture, sports and domestic work, as presented in Table 4.1.

The result in Figure 4.1 reveals that greater percentage of households were not able to operate their household businesses as the COVID-19 pandemic intensified. The result further shows that these percentages increase as the lockdown persists and many businesses were closed down as a result of their inability to generate enough revenue to keep the business afloat. The result suggests greater losses to the enterprises and the economy at large. This is because this category of businesses and other ones in the informal sector make a significant contribution to the Gross Domestic Product (GDP). For instance, the informal sector contribute 65% to the GDP in 2018.

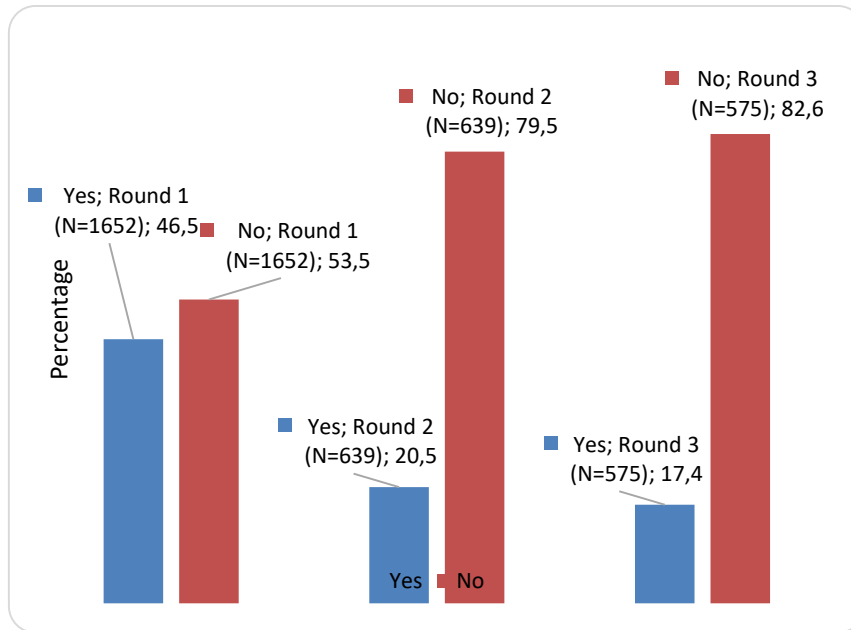


Figure 4.1: Operation of Family Business by any of the HH since the beginning of 2020

Table 4.1: The Best Description of Family Business Sector

| S/N | Which of the following best describes the sector of the family business? | Round 1 | Round 2 | Round 3 | Total |
|-----|---|-------------|-------------|-------------|--------------|
| 1 | Agriculture, Hunting, Fishing | 12 (1.10) | 10 (0.76) | 6 (0.46) | 28 (0.76) |
| 2 | Mining, Manufacturing | 14 (1.29) | 18 (1.37) | 18 (1.38) | 50 (1.35) |
| 3 | Electricity, Gas, Water Supply | 12 (1.10) | 10 (0.76) | 11 (0.84) | 33 (0.89) |
| 4 | Construction | 39 (3.59) | 57 (4.34) | 62 (4.74) | 158 (4.26) |
| 5 | Buying & Selling Goods, Repair of Goods, Hotels & Restaurants | 703 (64.73) | 846 (64.38) | 882 (67.43) | 2431 (65.56) |
| 6 | Transport, Driving, Post, Travel Agencies | 69 (6.35) | 79 (6.01) | 71 (5.43) | 219 (5.91) |
| 7 | Professional Activities: Finance, Legal, Analysis, Computer, Real Estate | 20 (1.84) | 32 (2.44) | 17 (1.39) | 69 (1.86) |
| 9 | Personal Services, Education, Health, Culture, Sport, Domestic Work, others | 217 (19.98) | 262 (19.94) | 241 (18.43) | 720 (19.42) |
| | Total | 1086 (100) | 1314 (100) | 1308 (100) | 3708 (100) |

4.3 Level of Revenue from Businesses during lock down

Many business were affected by the lockdown policy of the government to curb the spread of corona virus. The respondents provided information about the revenue generated from their family businesses compared to the situation in February 2020 before the lock down. The result as presented in Table 4.2 shows that in the first round, about 24% had generated no revenue from their business

while greater number (58.4%) experienced lesser revenue from sales. Those who reported no change in revenue were 7.4% while 10.4% had higher revenue during the lock down period. Similar trend was reported during round 2 and 3 where greater percentage reported lower revenues. This result reveals that most of the participating household enterprises have been severely affected due to the COVID-19 outbreak and the containment measures. This is not surprising because the enterprises depend largely on their routine business transactions and very few customers (Williams & Schaefer, 2013).

Table 4.2: Impact of COVID-19 lock down on revenue from family business in the country

| Response | Round 1 N (%) | Round 2 N (%) | Round 3 N (%) | Total N (%) |
|-----------------------------|------------------|------------------|------------------|----------------|
| 1. Higher | 113 (10.41) | 145 (29.84) | 256 (27.23) | 514 (20.47) |
| 2. The same | 80 (7.37) | 71 (14.61) | 155 (16.49) | 306 (12.19) |
| 3. Less | 634 (58.43) | 232 (47.74) | 412 (43.83) | 1278 (50.90) |
| 4. No revenue from sales | 258 (23.78) | 38 (7.82) | 117 (12.45) | 413 (16.45) |
| Total | 1085 (100) | 486 (100) | 940 (100) | 2511 (100) |

4.3 Perceived Reason for change in Level of Revenue from Businesses during lock down

It is observed from Table 4.3 that majority of the respondents (65.7%) in the round 1 survey perceived that closure of business premises due to coronavirus legal restriction was responsible for the reduction in revenue from sales or no revenue at all while about 20% perceived that it was due to absence or reduction in the number of customers. However, in the round 2 of the survey, majority (40.3%) of the households reported absence of customers or reduction in their number. The responses in round 3 also follow that of round 1. Other factors reported include inability to get inputs, inability to travel or transport goods and need to take care of family members, among others.

Table 4.3: Perceived causes of changes in the level of revenue during COVID-19 lock down

| Why was the revenue less than in February for this family business? | Round 1 N (%) | Round 2 N (%) | Round 3 N (%) | Total N (%) |
|--|------------------|------------------|------------------|----------------|
| Usual place of business closed due to coronavirus legal restrictions | 585 (65.66) | 132 (48.89) | 161 (30.43) | 878 (51.95) |
| Usual place of business closed for another reason | 18 (2.02) | 10 (3.70) | 12 (2.27) | 40 (2.37) |
| No customers / less customers | 175 (19.64) | 75 (27.78) | 213 (40.26) | 463 (27.40) |
| Can't get inputs | 16 (1.80) | 7 (2.59) | 38 (7.18) | 61 (3.61) |
| Can't travel / transport goods for trade | 23 (2.58) | 10 (3.70) | 4 (0.76) | 37 (2.19) |
| Ill with another disease | 1 (0.11) | 2 (0.74) | 5 (0.95) | 8 (0.47) |
| Need to take care of a family member | 11 (1.23) | 1 (0.37) | 5 (0.95) | 17 (1.01) |
| Seasonal closure | 8 (0.9) | 1 (0.37) | 10 (1.89) | 19 (1.12) |
| Vacation | 1 (0.11) | - | - | 1 (0.06) |
| Total | 891 (100) | 270 (100) | 529 (100) | 1690 (100) |

4.3 The status of family businesses at the time of survey

The respondents were asked about the status of their family business during rounds 2 and 3 of the survey. The results in Table 4.4 showed that majority of the respondents (64.5%) in the round 2 of the survey reported that their businesses were still opened to customers while about 28% reported temporary closure and 7.5% of them were permanently closed. In the round 3, opened businesses rose to 77% and as those temporarily closed decreased to 17.8%. Those permanently closed also reduced from 7.5% to 5.27%. The percentage of businesses permanently closed are very significant. This is one of the results of the negative impact of the Covid-19 pandemic and its associated social restrictions. Majority of those who temporarily closed their businesses in rounds 1 and 2 were as a result of legal restrictions due to coronavirus. Other reasons for the closure were presented in Table 4.5.

Table 4.4: Status of family businesses at the time of survey

| What is the current status of your family business? | Round 1 | Round 2 | Round 3 | Total |
|---|---------|-------------|--------------|--------------|
| | N (%) | N (%) | N (%) | N (%) |
| Open | - | 848 (64.54) | 1000 (76.95) | 1856 (70.73) |
| Temporary closed | - | 368 (28.01) | 233 (17.79) | 601 (22.90) |
| Permanent closed | - | 98 (7.46) | 69 (5.27) | 167 (6.36) |
| Total | - | 1314 (100) | 1310 (100) | 2624 (100) |

Table 4.5: Reasons for closing family businesses at the time of survey

| Why is your family business closed? | Round 1 | Round 2 | Round 3 | Total |
|--|---------|-------------|-------------|-------------|
| | N (%) | N (%) | N (%) | N (%) |
| Usual place of business closed due to coronavirus legal restrictions | - | 298 (63.95) | 123 (40.86) | 421 (54.89) |
| Usual place of business closed for another reason | - | 42 (9.01) | 41 (13.62) | 83 (10.82) |
| No customers/fewer customers | - | 24 (5.16) | 26 (8.64) | 50 (6.52) |
| Can't get inputs | - | 26 (5.58) | 33 (10.96) | 59 (7.69) |
| Can't travel/transport goods for trade | - | 7 (1.50) | 6 (1.99) | 13 (1.69) |
| Ill with another disease/quarantined due to coronavirus | - | 12 (2.58) | 9 (2.99) | 21 (2.74) |
| Need to take care of a family member | - | 1 (0.21) | 1 (0.33) | 2 (0.26) |
| Seasonal closure | - | 14 (3) | 11 (3.65) | 25 (3.26) |
| Total | - | 466 (100) | 301 (100) | 767 (100) |

4.4 The impact of COVID-19 infection rate and location on revenue from family businesses at the time of survey

Generally, it was observed that revenues from family enterprises stagnated or dwindled during the COVID-19 pandemic and restriction irrespective of the number cases reported in the states. Although

only 12 states had confirmed COVID-19 cases at the time of the round 1 survey as shown in Figure 4.2, some respondents from all the states reported reduction in revenue. This could be attributed to boarder closure and total lockdown of economic activities to limit the spread of the virus. For example, Osun with just 2 confirmed cases had higher percentage of respondents with reduced revenue (74.2%) and zero revenue (25.8%) compared to Lagos with 68 confirmed cases but 60.8% and 19.6% of respondents with reduced revenue and zero revenue respectively.

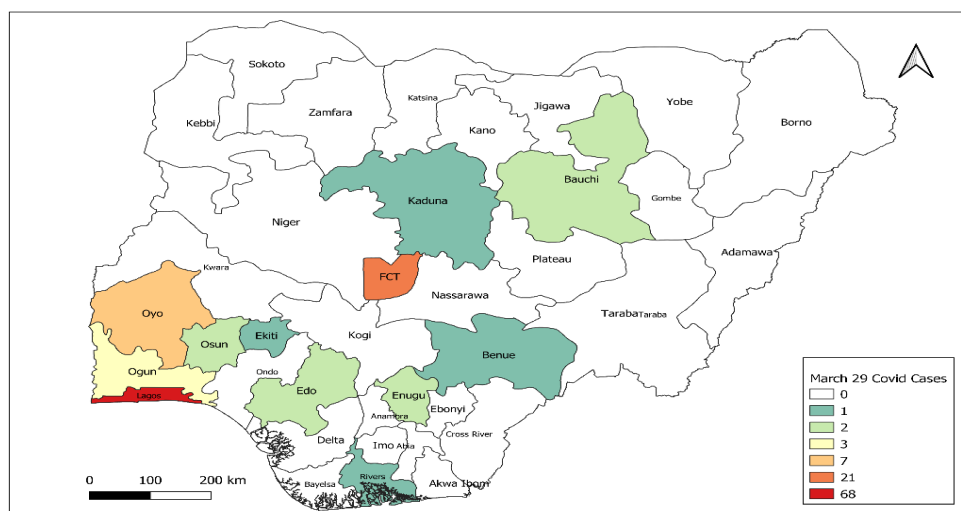


Figure 4.2: States with confirmed cases of COVID-19 as at March 29, 2020 (Source: NCDC, 2020)

Table 4.6: Impact of COVID-19 lock down on revenue from family business for round 1 survey in states with confirmed cases as at March 29, 2020

| State | Higher (%) | The same (%) | Less (%) | No revenue from sales (%) | COVID-19 Confirmed Cases | Death | Discharged |
|--------|------------|--------------|----------|---------------------------|--------------------------|-------|------------|
| Osun | 0.0 | 0.0 | 74.2 | 25.8 | 2 | - | - |
| Edo | 5.6 | 0.0 | 61.1 | 33.3 | 2 | - | - |
| Lagos | 5.9 | 13.7 | 60.8 | 19.6 | 68 | - | 1 |
| Ogun | 0.0 | 10.5 | 60.5 | 28.9 | 3 | - | 2 |
| Enugu | 13.6 | 4.5 | 59.1 | 22.7 | 2 | - | - |
| Bauchi | 23.8 | 6.3 | 58.7 | 11.1 | 2 | - | - |
| Benue | 13.6 | 9.1 | 54.5 | 22.7 | 1 | - | - |
| Rivers | 4.2 | 12.5 | 54.2 | 29.2 | 1 | - | - |
| Oyo | 2.7 | 18.9 | 54.1 | 24.3 | 7 | - | - |
| FCT | 5 | 5 | 50 | 40 | 21 | 1 | - |
| Ekiti | 0.0 | 10.8 | 48.6 | 40.5 | 1 | - | - |
| Kaduna | 21.0 | 8.1 | 46.8 | 24.2 | 1 | - | - |

4.5 Nature of COVID-19 induced challenges faced by non-farm businesses

As earlier discussed, the COVID-19 pandemic and associated government containment measures which include social distancing and stay-home orders forced many businesses to close; some temporarily while some permanently, leading to an unprecedented disruption of business activities. The disruption has been evident in the weak supply chain, reduction in consumer demand, reduction of workforce, zero or reduced cash flow in sectors such as airlines, hotels and restaurants, fitness and personal care services. Nevertheless, while some businesses are struggling, some businesses seem to have recognized the new opportunities the lockdown period provided. This is true for a number of Internet-based businesses; such as those related to online entertainment, food delivery, online shopping, online education, and those in healthcare services and trade, for instance pharmacy shops and those selling health-boosting herbs. For instance, globally, the internet connectivity business experienced a boom during the period under review as individuals and organisations stayed in touch, shared information and did business through phone calls, social media outlets and online/virtual meetings. On the other hand, so many businesses were distressed and collapsed. It is estimated that around “half a million firms are at risk of collapse” (Cook & Barrett, 2020). This has been reported to have caused widespread economic distress and that it could in turn have a long-term impact on the global economy.

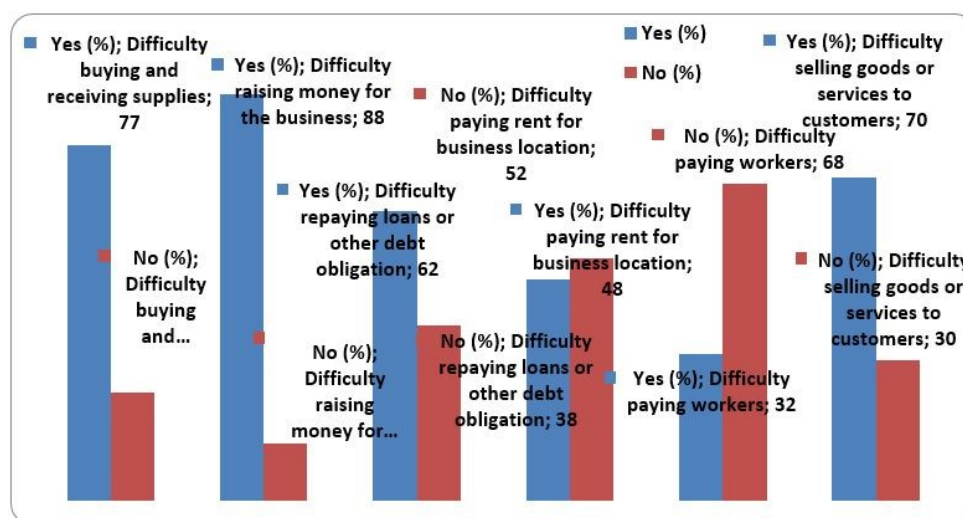


Figure 4.3 Challenges faced by Non-farm businesses during COVID-19 lockdown

The challenges as described in this study relate to difficulties faced by non-farm businesses during the COVID-19 lockdown period in June 2020, which is the 2nd round of the survey data used in this study. This was measured with some indicators such as difficulty in buying and receiving supplies, difficulty paying rent for business location and difficulty selling products to customers, among others. Out of the factors investigated, majority (88%) of respondents reported that difficulty in raising capital for business and difficulty getting supplies were the most experienced challenges businesses faced during the lockdown. This was followed by difficulty in selling the goods to consumers and repaying loans and other obligations. These findings are not surprising, as the lockdown period forced all businesses to close temporarily to curtail the spread of the virus.

4.6 Coping Strategies for Household Enterprises During Covid-19 Pandemic

In order to cope with the challenges experienced as a result of COVID-19 lockdown measures, entrepreneurs and business owners strived to devise coping/survival strategies to stay afloat. These strategies were to help cushion the effects of the pandemic and devise appropriate strategies for business sustainability. Entrepreneur’s ability to adapt and build resilience in the face of difficulties is central to success. Therefore, during the pandemic, some businesses adopted alternative means of offering their goods and services. These include online delivery, home delivery, virtual training, virtual schooling, and the use of social media. The results of the survey revealed that majority of business owners (54%) switched product/service offering as a strategy to cope with the difficulties businesses faced during the COVID-19 lockdown. The period experienced boom in the production of alcohol-based hand sanitizers, non-medical face masks, among others. This was followed by an approach of offering delivery services only (47%) and use of phone and social media outlets (39%) in order to reach and maintain customers’ loyalty.

Table 4.7: Coping Strategies among Household Enterprises during Covid-19 Pandemic

| Strategies to Adapt to challenges | Yes (%) | No (%) |
|---|----------------|---------------|
| Requiring customers to wear masks | 7.55 | 92.45 |
| Keeping distance between customers | 6.94 | 93.06 |
| Allowing a reduced number of customers at a time | 20.61 | 79.39 |
| Use of phone and social media to market products & services | 38.57 | 61.43 |
| Switched to delivery services only | 47.35 | 52.64 |
| Switched product/service offering | 53.67 | 46.33 |

5. CONCLUSION AND POLICY RECOMMENDATIONS

This paper has shown that the novel coronavirus surfaced in Nigeria in February 2020 affecting virtually every sector of the economy, particularly the oil sector that represents the mainstay of Nigeria’s economy. The pandemic has brought many untold hardships with socio-economic impacts on both public and private activities. The containment measures and lockdown have forced several businesses to close while others devise strategies to work remotely. The economic burden on the households and their businesses has been enormous. For instance, many households have had to mobilise resources by dipping hands into their savings, borrowing, selling business assets to pay for health care of sick relatives (or themselves) from COVID-19. Household businesses are highly susceptible to volatility in the economy. Many small businesses have recorded abysmally low productivity as a result of government policies such as quarantine, ban on public gathering, border and business closures etc. to limit the spread of the pandemic. At the same time, business closure has resulted in low trade and economic activities, thereby leading to job losses and reduced income for households.

Key findings have revealed that many household enterprises were closed as a result of the coronavirus legal restrictions placed on businesses. We observed that over 70% of the household enterprises recorded lower revenue due to the COVID-19 outbreak and lockdowns. Inability to access input

materials, drastic reduction in cash flow, disrupted supply chain and decrease in demand for goods and services were seen to have limited firms' production capacity leading to stagnated or reduced revenues. The businesses also faced the challenges of limited capital and inability to access loan, forcing many of them to sell their assets and eventually closed down. In order to survive these challenges, many household businesses reinvented themselves by finding innovative strategies to stay afloat. Some of these strategies include switching product/service, offering delivery services only and the use of technology and social medial platforms.

Going forward, policy response should be well articulated and implemented to reduce the socio-economic burden induced by the pandemic. For instance, the effect of reducing the interest rate for businesses in the productive sector may not be obvious in the short run. However, the Central bank should quickly devise strategies to ease the cash flow constraints hindering businesses most especially for the big players in the production value chain who supply inputs for the small businesses. Over 70% of businesses in Nigeria are in the informal sector. The economic activities in the sector are run by traders and households living on daily income from low capital petty trading with revenue barely enough to sustain their daily needs. It is important therefore for the government to implement targeted measures towards such vulnerable households and the sectors that are severely affected by pandemic induced challenges. Some of these measures could include significant improvement in the National and State Social Registers so as to accommodate substantial number of the poor and vulnerable Nigerian households. This effort will increase the number of beneficiaries of the targeted cash transfer and livelihood interventions. It is believed that this initiative is capable of improving household financial stability, asset acquisition as well as giving them a sustainable livelihood.

Most businesses groan under serious liquidity constraints. Fiscal incentives such as deferring value added tax, loan restructuring and multi-phased economic stimulus will be of great help to the sectors. Provision of business bail-out fund to stimulate production while adhering to the containment measures. Entrepreneurs and all other key stakeholders working in the production value chain should also restructure the manufacturing and distribution networks so that they are not confined to a particular geographic location. This strategy will strengthen the production value chain and reduce the risk of further disruption. It is therefore crucial for governments at all levels to provide social and economic incentives that not only offer a financial succour for affected individuals and households, but also help reduce the broader market disruptions caused by the pandemic. In general, household enterprises should be proactive in devising innovative strategies that will allow them withstand negative externalities of the pandemic which is capable of wreaking havoc to their operational and financial resources.

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THE PERCEPTIONS OF STUDENTS AND STAFF ON SEXUAL ASSAULT IN PREVIOUSLY DISADVANTAGED INSTITUTIONS, SOUTH AFRICA.

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ABSTRACT

Sexual assault in previously disadvantaged institutions across South Africa is increasing at an alarming rate and has become an important issue for many institutions, governments and community members across the country. As a result, most institutions of higher learning have developed policies to mitigate sexual assault on campus. However, the effectiveness of these policies requires everyone in the institution (staff and students) and the community to accept and share some of the responsibilities. The aim of this paper is to highlight students' and staff members' perceptions of sexual assault at a previously disadvantaged institution in South Africa, Eastern Cape. Employing a quantitative research approach, this study uses a descriptive survey design, simple random sampling and close-ended questionnaires for data collection. The Statistical Package for the Social Science (SPSS) was used for quantitative data analysis. Findings indicate substantial evidence that although the institution under study has strategies employed to mitigate sexual assault, the prevalence of sexual assault is still high. Attempted rape and unwanted sexual touching have been reported as the most common forms of sexual assault in institutions of higher learning. Furthermore, the results indicate that the most common perpetrators of sexual assault are male students who possess political power or student leadership. As a result, the paper recommends the development of intervention programs, self-defence classes for female students, and training of staff members and security officers in order to mitigate sexual assault on campuses. Additionally, the paper suggests a ground-breaking collaboration between previously disadvantaged institutions and external law enforcement agencies.

Keywords: Sexual assault, Students, Staff members, previously disadvantaged institutions, Victims

1. INTRODUCTION

South Africa has made numerous strides in empowering female students in institutions of higher learning. In spite of these efforts, sexual assaults in institutions of higher learning are a common

problem that often goes unreported due to various reasons. Cantor *et al.*, (2015) define sexual assault as a type of sexual violence that applies to a broad range of forced and unwanted sexual activity. Cultural, religious, social and economic factors play a role in perpetuating sexual assaults in institutions of higher learning. The plight of sexual assault is a critical social question for previously disadvantaged institutions across South Africa. Institutions of higher learning, which are key to unlocking the full potential of female students', have the responsibility to provide and maintain a secure environment for all who work and study on campus. Campuses are expected to be secure environments with dedicated security personnel and rigorous access control. The research conducted at various university campuses such as the University of KwaZulu-Natal (Chetty, 2008; Collins *et al.*, 2009), Rhodes University (Botha *et al.*, 2015), Stellenbosch University (Graziano, 2004) and the University of the Western Cape (Clowes *et al.*, 2009), proves that sexual assault is a widespread phenomenon in South African Universities. Thus, this paper highlights the perceptions of students and staff members on female sexual assault at a previously disadvantaged institution in South Africa, Eastern Cape.

2. LITERATURE REVIEW

The nature and the extent of sexual assault: international and continental perspective

Several important studies on the prevalence of sexual assault on female students have been conducted within the last 15 years in the United States of America. This ultimately called on institutions of higher learning to improve their policies on sexual assault (Krebs, Lindquist & Barrick, 2011; Krebs *et al.*, 2007). These particular studies have been widely cited in the media and by other sources including the White House Administration. Krebs *et al.* (2007) stated that the methods used in these studies to measure sexual victimization among college students have also been replicated in other studies. Although each of the studies measured various forms of sexual victimization on college campuses (e.g., physically forced or forcible rape, incapacitated rape, sexual coercion and unwanted sexual contact), prevalent findings are comparable especially the rate of forcible rape among college women.

Krebs *et al.* (2007) surveyed a random sample of 5446 undergraduate women at two public universities in the United States. Specifically, 12.6% of women indicated to have experienced an attempted sexual assault, 13.7% experienced a completed sexual assault and 7.2% experienced both attempted and completed sexual assault since entering college. Another study by Krebs *et al.*, (2011), examined the prevalence of sexual assault at Historically Black College or University (HBCU) campuses using measurements that were similar to the 2007 campus sexual assault study and found comparable, though slightly lower, prevalence rates of sexual assault at HBCU campuses. Findings suggested that approximately 8% of women enrolled in the HBCUs included in the study experienced an attempted sexual assault and 9.6% experienced a completed sexual assault since entering college.

In Africa, reports of the sexual assault on female students in the institutions of higher learning have increased with the help of social media and new recording technologies (Mezie-Okoye & Alamina, 2014). Although it has been reported as the fastest growing crime in many parts of the world, the actual prevalence of sexual assault is unknown as a result of gross underreporting. However, studies

have shown that one in four women in institutions of higher learning may have experienced sexual violence by an intimate partner and up to a third of adolescent girls report their experience as being forced (Mezie-Okoye & Alamina, 2014). A study carried out in Southern Nigeria (University of Calabar) shows that 51.7% of female undergraduates had suffered one form of sexual assault or another (Effa *et al.*, 2012). This figure is higher than what was obtained in two studies from Northern Nigeria (13.8% and 22.2%). Iliyasu *et al.* (2011) found that the prevalence is generally high in Africa and varies between 16% in Cameroon, 23% in Sierra Leone, 34.4% in Ethiopia, 49% in Ghana, 65.6% in Zimbabwe and 67% in Botswana.

The nature and extent of sexual assault: A South African perspective

Vetten (2014) argues that not all forms of sexual assault are defined as crimes in South Africa. For instance, some sexual harassment cases fall within the ambit of behaviour, are treated as misconduct and thus, dealt with in terms of labour law and institutions' disciplinary codes. This location of sexual assault within different laws, means that it is difficult to get a comprehensive overview of the nature and extent of reported sexual victimization in South Africa. Although the South African Police Service (SAPS) provides sexual offense statistics once a year, educational institutions and workplaces are not compelled to provide reports on their disciplinary proceedings. As a result, some cases of sexual victimization are not exposed. Therefore, very little research has been undertaken to explore these gaps. There is also very little nationally representative data on all types of sexual offenses and in some instances; there is no information at all regarding the experiences of particular categories of victims (Vetten, 2014).

According to the SAPS, sexual offences increased by 4.6% in 2018-2019 as compared to the previous financial year. More specifically, 52 420 sexual offenses were reported, recording an increase of 3 212 as compared to the 2017-2018 financial year. This total includes crimes such as rape, assault and contact sexual offenses. The exact prevalence of sexual assault in South African institutions of higher learning is unknown. Many acts of sexual assault go unreported, not only to state or private institutions, but even to the victim's family, friends and fellow students. The South African Medical Research Council (SAMRC) estimates that the number of sexual assaults may be up to nine times more than the reported statistics. 1 071,500 sexual offense cases were reported to the SAPS in 2016 to 2017. If the real sexual assault figures in South Africa are closer to 643,500 per year, it means that someone is raped or indecently assaulted every minute. Considering the high rate of sexual assault cases going unrecorded and the recorded violations being broadly categorized as 'sexual offenses', it is difficult to ascertain the true nature and extent of sexual assault in South Africa (Merceline *et al.*, 2017).

According to the Department of Higher Education and Training (DHET) (2016) there are approximately 76 higher education institutions in South Africa, with approximately two million students and staff across 420 campuses. While there is no data to confirm the true extent of sexual assault in these institutions of higher learning, important insights are highlighted in a retrospective SAMRC study on rape justice (Mercilene *et al.*, 2017). The sample for the SAMRC study consisted 3952 cases of rape reported at 170 police stations across the country in 2012. In these cases, 94.1% of the complainants were female, 46% were children (under 18), 4.9% were disabled and 10.3% of

the adult victims were students at the time. The report does not detail where these reported student rape cases occurred or who the perpetrators were. Findings from the overall sample reveal that in 69% of the cases, the perpetrator was known to the victim either as an acquaintance (30.4%), a current or ex-partner (13.9%), a relative (10.8%), or in another capacity such as a teacher, a fellow employee or a prospective employer (9%) (Mercilene, *et al.*, 2017).

Some higher education institutions in South Africa have been developing policies to combat sexual assault since the late 1980s (Treffry-Goatley *et al.*, 2018). Nonetheless, many still lack relevant policy framework and others have failed to implement their policies consistently (Joubert, Van Wyk & Rothmann, 2011). Consequently, sexual violence remains ‘a key challenge to the post-schooling system’ and female students continue to be plagued by patriarchal practices and sexual violence. Since October 2016, the South African DHET has been developing a policy and a strategic framework to address gender-based violence (GBV). This draft framework could extensively address sexual violence on campus (Treffry-Goatley, *et al.*, 2018). For this strategic policy to succeed, the underlying patriarchal culture needs to be challenged since it often undermines the implementation of policies designed to protect students from sexual assault.

3. METHODOLOGY

Research approach

This study applied a mixed-methods research design, often referred to as triangulation. In triangulation, the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative methods in a single study or program of inquiry (Thomas, 2017). The quantitative component of the mixed-methods approach enabled the researchers to capture statistical information while the qualitative component captured the perceptions, views and opinions, of students and staff members about sexual assault in the previously disadvantaged institution. Triangulation therefore, allowed the researchers to identify aspects of a topic more accurately by approaching it from different angles, using different methods and techniques.

Sampling

For this study, the researchers targeted ninety (90) respondents which comprise both males and females from different faculties. A total of eight (8) respondents did not return the questionnaire, thus the researchers used the sample size of eighty-two (82) respondents, of which forty-four (44) were female students while thirty-eight (38) were male students. The researchers used simple random sampling to select respondents from the students on the campus. In addition, class lists that were grouped into the faculties for the particular period of data collection were used to ensure that all faculties were represented. On the other hand, five (5) staff members at the institution were purposefully selected for the in-depth interviews. With regards to information-rich cases of female sexual assault, these staff members were more conversant with the reported cases of sexual assault. In brief, the sampling frame included representatives of all faculties at the University in Eastern Cape, both first year students and senior students, male and female students. The interviews were conducted from September 2020 to October 2020 during Level 1 Covid-19 regulations in the country. Strict adherence to health regulations ensured that the researchers and participants were at a low risk of

contracting Covid-19 by using the Self-check Covid-19 App as well as adhering to Covid-19 protocols such as proper wearing of masks, sanitizing and social distancing.

Data collection

Participants were given take-home survey questionnaires which they were expected to return within 7 days. Prior to the actual data collection process, the questionnaire was pre-tested to determine its efficacy in collecting reliable data. Survey questionnaires were administered to the selected students under study, thus enabling the researchers to obtain information from a wider audience as compared to interviews. On the other hand, semi-structured interviews were used to interview staff members to examine their perceptions on female sexual assault and the mechanisms used in institutions of higher learning to combat female sexual assault. Conducting semi-structured interviews allowed the researchers to obtain valid and reliable measures through verbal responses from the participants. The researchers prepared an interview schedule with questions that guided the interview process. During the semi-structured interviews, the researchers probed participants responses in order to get detailed in-depth information on female sexual assault in the institution. Semi-structured interviews allowed participants to provide more information on their perceptions, feelings, attitudes and understanding of the subject.

Before proceeding with the interview process, each of the participants were presented with an informed consent letter while the rationale and process of the interview was explained to them. The researchers developed rapport with participants ensuring the confidentiality of their responses, thus increasing respondents' comfortability to freely respond to questions without fear of harm. After the interviews, the researchers provided a debriefing session to the participants and also offered the contact details of the counselling psychologist available on campus should they feel the need for such services. Furthermore, respondents and participants were requested to sign both the consent letter and the declaration form as evidence that they understood the content and the purpose of the study, that they had no objection to participating in the study, and that they agreed to be interviewed.

Audio recordings were used to capture and secure information provided by participants. The researchers ensured that the tape recorder worked properly and its working condition was constantly checked before each interview session started. Whilst recording the interviews, the researchers took notes which were later used to verify information from the recordings. The researchers also observed the participants' gestures, tones and temperaments as they answered or reacted to questions. Analysing non-verbal communication indicated the weight and gravity of the issue being discussed. Interviews were 15 to 40 minutes in length and were all conducted in English to ensure that the questions were appropriate and understood by the participants.

Data analysis

In this study, quantitative data was analysed using the Statistical Package for Social Sciences (SPSS) Version 24, while qualitative data was thematically analysed. SPSS is a Windows-based program that performs data entry and analysis to create tables and graphs. As respondents handed in the questionnaires, the researchers cross-checked and edited them appropriately to ensure that data was clean and free from inconsistencies and incompleteness. The numbers or other symbols were encoded

so that the responses could be grouped into limited categories. Data was encoded directly to the SPSS program spreadsheet. Coded data was verified to avoid inconsistencies and once data was fully qualified and entered into the SPSS program, the quantitative data analysis process began. The analysed quantitative data was reported using percentages, tables and figures.

Thematic analysis is “...an independent qualitative descriptive approach that is mainly described as a method for identifying, analysing and reporting patterns (themes) that are found within data” (Vaismoradi, Turunen & Bondas, 2013: 400). The researchers were fully immersed and actively engaged in the data by firstly transcribing the interactions and then listening to the recordings to familiarise with the content. Preliminary codes were identified. Relevant data extracts were sorted (combined or split) according to main themes. Data was arranged through the process of coding in themes according to the study’s objectives and research questions. Similar ideas and patterns were combined; contradictory themes were also separated and examined according to the objectives of the study. Themes were compared considering the information gathered in the literature review while irrelevant themes were discarded. Finally, the researcher transformed data into interpretable pieces of writing by using vivid and compelling extract examples that related to the themes, research questions and literature, after which findings were recorded.

4. RESULTS AND DISCUSSION

Table 1: The extent and nature of female students as the targets of sexual assault

| | Strongly disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|-------------------|-----------|-------------|-------------|----------------|
| Sexual assault prevalence is high on campus | 6 7.4% | — | 16 19.5% | 28 34.1% | 32 39.0% |
| Female students are the most targets of sexual assault | — | 8 9.8% | 6 7.4% | 24 29.1% | 44 53.7% |
| Every female student is likely to experience sexual assault on campus | 4 4.9% | 6 7.3% | 32 39.0% | 20 24.4% | 20 24.4% |
| Most of the perpetrators are the people whom the victims know | 4 4.9% | — | 8 9.8% | 42 51.2% | 28 34.1% |
| Total number of participants=82 | | | | | |

73.1% of respondents (both agreed and strongly agreed) affirmed the notion that the prevalence of sexual assault on campus is high while 19.5% were neutral. On the other hand only 7.4% of respondents strongly disagreed that sexual assault is high on campus. The findings indicate that female students are most likely to be targets of sexual assault on campus. This is apparent from Table 1 above, as it indicates that the majority (53.7%) of the respondents strongly agreed that female

students are the most targeted for sexual assault. However, this does not mean that all female students are likely to be the victims as the majority (32%) of respondents who participated in the study have neutral thoughts about every female student being likely to experience sexual assault on campus.

Table 2: Common forms of sexual assault on campus

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---------------------------|-------------------|-------------|-------------|-------------|----------------|
| Attempted rape | — | — | — | 38 46.3% | 44 53.7% |
| Unwanted sexual touching | — | 9 11% | 9 11% | 28 34.1% | 36 43.9% |
| Unwanted fondling/rubbing | — | 10 12.2% | 12 14.6% | 20 24.4% | 40 48.8% |
| Unwanted kissing | — | 17 20.7% | 9 11% | 26 31.7% | 30 36.6% |

Total number of participants=82

The findings revealed that there are different forms of sexual assault such as attempted rape, unwanted sexual touching, unwanted fondling or rubbing and unwanted kissing. The above-tabulated results indicate that 53.7% of respondents strongly agreed and 46.3% of respondents agreed (giving a total of 100% of respondents) that attempted rape is the most common form of sexual assault on campus. Table 2 above shows that 43.9% of the respondents strongly agreed that unwanted sexual touching is also a common form of sexual assault on campus while 11% of respondents disagree and another 11% were neutral on the issue. Almost half of the respondents (48.8%) strongly agreed that unwanted fondling or rubbing is also a common form of sexual assault. Furthermore, only 36.6% strongly agreed and 31.7% agreed that unwanted kissing is a common form of sexual assault. On the other hand, a minority of 20.7% had contrary perceptions and 11% of the respondents were undecided on the notion.

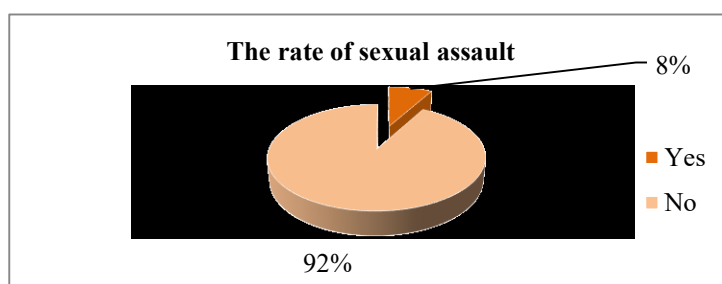


Figure 1: Rate of Sexual Assault on Campus

Figure 1 above indicates the rate of sexual assault on campus. The majority (92%) of respondents indicated that they have never been sexually assaulted, while only 8% indicated that they have been the victims of sexual assault on campus. According to the findings, 92% of respondents who were never sexually assaulted included 48% of male students and 44% were females. Therefore, the results of this paper are the perceptions of the students and cannot be generalised over the institution.

Table 3: The context where sexual assault takes place

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|--------------------------------------|-------------------|-------------|-------------|-------------|----------------|
| Lecture halls | 11 13.4% | 36 43.9% | 16 19.5% | 19 23.2% | — |
| Lecturer's offices | — | — | 8 9.8% | 66 80.4% | 8 9.8% |
| Places of social gatherings (bashes) | — | 12 14.6% | — | 8 9.8% | 62 75.6% |
| Residences | — | — | 4 4.9% | 40 48.8% | 38 46.3% |
| Playgrounds | — | 33 40.2% | 29 35.4% | 20 24.4% | — |
| Total number of participants=82 | | | | | |

As illustrated in Table 3 above, at least 13.4% of the respondents strongly disagree and the majority of 43.9% disagree that the lecture halls are the areas where sexual assault takes place. On the other hand, 80.4% and 9.8% of the respondents rated lecturer's offices as the common places where sexual assault takes place. Findings also revealed that sexual assault takes place at places of social gathering (75.6% strongly agreed). Almost half of the respondents (48.8%) agreed and 46.3% of the respondents strongly agreed that sexual assault may take place in residences. Moreover, the playgrounds were rated as the least areas where sexual assault takes place, as 40.3% of the respondents disagree and 35.4% were neutral on the notion. According to the findings of this study, lecture halls, places of social gatherings and residences appear to be places where sexual assault usually takes place.

Table 4: Common perpetrators of sexual assault

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---------------------------------------|-------------------|-------------|-------------|-------------|----------------|
| Male students | — | 7 8.5% | 5 6.1% | 25 30.5% | 45 54.9% |
| Male students in leadership positions | — | 14 17.1% | — | 48 58.5% | 20 24.4% |
| Lecturers | — | 10 12.2% | — | 33 40.2% | 39 47.6% |
| Coach or trainer | 7 8.5% | 19 23.2% | 29 35.4% | 27 32.9% | — |

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---------------------------------|-------------------|----------|---------|-------|----------------|
| People from community | — | 6 | 30 | 22 | 24 |
| | | 7.3 | 36.6% | 26.8% | 29.3% |
| Total number of participants=82 | | | | | |

Table 5 above shows the potential perpetrators of sexual assault on campus. The findings showed that the respondents agreed and strongly agreed that the most potential perpetrators of sexual assault are male students (54.9%), male students in leadership positions (58.5%) and lecturers (47.6%). In contrast, other respondents disagreed that male students (8.5%), male students in leadership positions (17.1%) and lecturers (12.2%) are the potential perpetrators of sexual assault on campus.

Levels of sexual assault on campus

Theme one focuses on the nature and the extent of sexual assault in the institution of higher learning. Participants were asked if sexual assaults are increasing on campus and how many students have reported cases of sexual assault. They responded as follows;

“Yes. I think there has been an increase in sexual assault in our institution even though I am not so sure about the exact number of reported cases”. (P1)

“I cannot be sure about the exact number as some of the cases are not reported..., ...and I believe that there are so many unreported cases than reported cases, therefore we cannot be so sure about the exact number of cases”. (P3)

“Yes. I think there has been an increase, also so many cases have been in the newspapers like Daily Dispatch and News 24”. (P4)

Most of the participants indicated that they do not know the exact number of sexual assault incidents as most of the victims or witnesses do not report such incidents. Some of the participants claimed that they have had several cases reported to them and that the cases of sexual assault have been persistent since 2014. These results correspond with a recent study conducted by Orchowski *et al.*, (2020) which found that the rates of sexual violence among college students have not reduced over time despite the proliferation of campus sexual assault prevention strategies.

Contributory and risk factors of sexual assault on campus

Participants identified lust, alcohol abuse, lack of discipline, lack of self-respect and moral decay as the most common contributing factors that lead to sexual assault on campus.

“You will notice that most of the students who were sexually assaulted were under the influence of alcohol or at the bash, therefore, I think alcohol is the most contributory factor of sexual assault. In most cases, both the offender and the victim would have been under the influence of alcohol. Other students when they are drunk, they wake up without knowing how they ended up being in someone’s room, therefore they do not report such cases because they think it is their fault”. (P4)

“Lack of discipline and lack of self-respect is one of the contributory factors to sexual assault, some people like to satisfy immediate gratifications at the expense of exposed female students”. (P2)

“Some perpetrators, when they see a female walking alone at night on campus, they always see the opportunity as most of the female students are not physically fit to fight for themselves”. (P5)

The above views reveal that the contributory factors of sexual assault can depend on the lifestyle of the students and their routine activities. Most interviewees suggested that, indeed the perpetrators of sexual assault use the opportunities to satisfy their immediate gratification when they see female students walking alone at night. Further, the routine activities theory in criminology stresses that the amount and location of crime also is predicted by the “absence of capable guardians” (Banyard, Moynihan, & Crossman, 2009: 447), that is, third parties or bystanders who, by their presence and actions, may help deter the problem when it is in progress or offer protection when risky situations develop. Romero-Sánchez and Megías (2015) added that certain behaviours in women (such as provocative dressing or making advances towards men) were considered by the male group to be risk behaviours for experiencing sexual assault. However, although participants in the male group highlighted several characteristics of women that may increase their likelihood to experience sexual assault, they did not mention that such behaviours or characteristics could make them ‘guilty’ or responsible for experiencing sexual assault.

5. DISCUSSION

The findings of this study established that indeed the extent of sexual assault cases has been relatively high on campus. This is despite the fact that the institution has been driving awareness campaigns on campus. The findings also indicated that most victims of sexual assault are female students and that the perpetrators are usually known to the victims, thus, victims often prefer not to report the cases. Jordan, Combs and Smith (2014) in their study on sexual assault argue that women who attend academic institutions in states across the country are at substantial risk of experiencing sexual assault and are at a greater risk of certain forms of assault than women in the general population or comparable age groups.

The findings presented in this study indicated that behavioural risk factors for sexual assault victimization include sexual behaviour (multiple partners and sexual risk-taking), substance misuse (mostly alcohol), going to nightclubs as well as poor intimate-partner relationship dynamics (Bonistall-Postel, 2017). From this study, the researchers noted that sexual assault takes place during the day and night, as a result most female students are at risk of being sexually assaulted. Furthermore, the respondents indicated that male students and student leaders with political power are the most common perpetrators of sexual assault. The findings also revealed that most of the institutions in South Africa have policies and strategies in place to mitigate sexual assaults, however greater awareness needs to be raised around sexual assault policies.

6. CONCLUSION

Regarding the nature and extent of sexual assault in previously disadvantaged institutions of higher learning, the participants indicated that although the prevalence of sexual assault is generally high, they cannot approximate the exact number of cases. Also, the researchers could not obtain statistics from participants; therefore, this objective was insufficiently fulfilled. However, to overcome this, the researchers managed to get hold of at least (9) 11% of reported cases from the respondents of questionnaires. In addition, the findings substantiate that the majority (54%) of respondents agreed that they know students who have been victims of sexual assault. The results indicated that most of the perpetrators of sexual assault are male students (those who possess political power/student leadership). The first-year students appeared to be the most victims of sexual assault. From these findings, it is evident that the institution is facing serious challenges of sexual assault, hence, there is a need to implement strategies and public awareness campaigns to address this issue. To ensure safety of victims, institutions of higher learning must ensure that existing policies are being properly implemented to prevent campus sexual assault. The institution should make sure that legal action is taken against perpetrators who are found guilty, while ensuring that victims receive sufficient protection, medical care and psychological help.

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COVID-19 AND ECONOMIC RECOVERY IN SOUTH AFRICA. HOW CAN STATE-OWNED ENTERPRISES BE REFORMED?

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ABSTRACT

The COVID-19 pandemic and the ensuing lockdown triggered a sharp drop in economic activity globally. South Africa reacted quickly to the outbreak by establishing a nationwide lockdown at the end of March 2020, whereby economic activity was reduced in all sectors of the economy, leaving only allowance for provision of essential services to residents and citizens. The effect of the lockdown on the economy is still widely felt, despite the easing of the lockdown, from the 1st of June 2020, in stages. The recovery of the economy is underway, and the government has set up ministerial committees to come up with strategies aimed at improving the economy. One of the key catalysts targeted on the path to economic recovery is state-owned enterprises (SOEs). The study aims to provide governance strategies which SOEs can adopt, post COVID-19, to remain financially viable, while providing the required services. The article employs a critical qualitative analysis and synthesis of theory method. Articles were purposively selected and analysed to provide information on the state of SOEs in South Africa. It is concluded that there should be a shift in the governance framework for SOEs that clearly sets company-specific goals in terms of profitability, capital structure and non-financial objectives. Restructuring of SOEs should be done to ensure that there is financial sustainability through private participation. Clear separation of the responsibilities of the board and the management of SOEs is emphasized, by giving the board the mandate to strategically supervise, monitor and audit the management of SOEs.

Keywords: COVID-19, Corporate governance, Economy, State-owned enterprises, South Africa

1. INTRODUCTION

The COVID-19 pandemic that started in Wuhan China in 2019 continues to affect the global economies. With each country adopting different strategies in order to contain the spread of the disease, there has been less interaction of people through lockdowns imposed on movements, leading to restrictions on the majority of business operations (Amankwah-Amoah, Khan & Osabutey, 2021). This has led to increasing unemployment, since most businesses could not continue operating, and without generation of revenue, they could not afford to pay their employees. Governments too had to come up with various means to provide for their citizens who were affected by closure of businesses and the stay-at-home policy, by offering them financial aid, among others (Robinette, 2020). In South Africa, there was an increase in debt as funds were borrowed in order to fund COVID-19 related costs

of vaccines, provision of social grants to citizens, and business support and subsidies (Mlambo & Masuku, 2020). The government of South Africa acquired a COVID-19 loan guarantee scheme to the amount of R 18.1 billion, and offered special COVID-19 relief of distress grants for low-income households, and a temporary employment relief scheme (OECD, 2020).

While governments are working towards economic recovery, there is a need to come up with strategic plans in order to achieve this. According to Stats SA (2021), the economy of South Africa is projected to grow by 3.8% in 2021 and 2.5% in 2022. The slow growth is due to successive waves of the COVID-19 pandemic slowing down economic activity. While this is below the anticipated growth rate, it is still a step in the right direction. However, there is a need to implement the government's infrastructure investment plan, one of which includes reformation and adoption of a new outlook in which state-owned enterprises (SOEs) should be functioning. According to OECD (2014), many countries, especially in Southern Africa, have placed emphasis on the role SOEs play in the economic growth of their countries. However, the disappointing performance in previous years has increased the need for SOE reformation aimed at promoting competition and boosting SOE performance (Marimuthu, 2020). A meeting held between the South African president Cyril Ramaphosa and chief executive officers (CEOs) of 20 SOEs to discuss challenges affecting SOEs in South Africa found that the challenges can be categorized into three main broad areas: inadequate capitalization, poor governance and political interference (Omarjee, 2019). Due to these challenges, there have been massive and frequent resignations of CEOs, while poor governance has led to escalating debts of the SOEs.

According to Reuters (2019), some of the major SOEs in South Africa have experienced financial difficulties of various magnitudes. For instance, Eskom owed debts of over R 420 billion, South African Broadcasting Corporation (SABC) requested a bailout of R 6.8 billion, South African Airways (SAA) required about R 21.7 billion to break even, Denel made losses of R 1.7 billion in 2018, and Prasa made a net loss of R 924 million. The main overarching challenge with the running of these SOEs is attributed to poor governance, as indicated by the frequent appointments and resignations of board members (Kanyane & Sausi, 2015). These challenges faced by the SOEs are directly linked to the interplay between politics and good corporate governance and could be remedied by exercising good corporate governance (Tsusi, 2019).

Corruption in SOEs is prevalent, especially in South Africa, as evidenced by the huge financial losses reported and various commissions set up (De Klerk & Solomon, 2019). This calls for better corporate governance practices, and for the appointment of SOE board members to be done in a professional manner to help foster transparency and proper monitoring (Mashamaite & Raseala, 2019).

The institutional policy undergirding the functions of SOEs in South Africa is anchored in the National Development Plan (NDP) whose overall goal is to eliminate poverty and reduce inequality in South Africa by the year 2030. The government's new growth path (NGP) calls on SOEs to support their objective of creating five million additional jobs (Nattrass, 2011). However, this is fruitless if the SOEs rely on the government for financial bailouts (Matsiliza, 2017). To turn around its economy, South Africa needs to sort out the governance framework for its many SOEs. The framework is important as it sets clear company specific objectives in terms of profitability expectations, capital

structure and non-financial objectives (Xolisa, 2020). The study therefore aims to look at the strategies through which SOEs in South Africa can be reformed, to assist with South Africa's economic recovery beyond COVID-19.

2. THEORETICAL FRAMEWORK

Agency Theory

The importance of re-looking at the corporate governance framework can be augmented by the adaptation of agency theory. Agency theory has been documented in various studies in management and economics. The theory was the work of Adam Smith and discusses the impact of governance issues, where there is separation of ownership and management of firms (Rampling, 2012). Adam Smith, in his book, *The Wealth of Nations*, argues that if an organisation is managed by a person or group of persons who are not the real owners, then there is a chance that they may not work for the owner's benefit. These agents appointed by the owners (principal) control large firms and carry the business operations. The argument being that the agents might use the property of the firm for their own ends, which will create conflict between the principals and agents (Jensen & Meckling, 1976). Conflict arises due to the fact that owners assign the task to managers to manage the firm, with the hope that managers will work for the benefit of the owners. However, managers are more interested in their compensation maximisation. The misalignment of interest between principal and agent and the lack of proper monitoring due to the diffused ownership structure leads to conflict, which is known as principal-agent conflict (Pratt & Zeckhauser, 1985).

The relationship of principal-to agent in agency theory is applicable to SOEs, in that they are governed by boards of directors. The board of directors is specifically charged with representing the interests of shareholders, who are the public, in South Africa. South Africa has one of the highest public ownership of firms with extended scope in the economy among the emerging economies (OECD, 2020). Due to this, SOEs enjoy competitive advantages as compared to their privately owned competitors. Some of these are through financial subsidies that sustain their operations. Other preferential treatment given by the South African government to SOEs includes preferential procurement of resources as well as monopoly rights. Due to these competitive advantages, good governance practices and operations of these SOEs may be compromised. Another issue concerns the third agency problem, in that SOEs are owned by the general public, but publicly elected servants act on their behalf. The boards and CEOs of these SOEs are nominated by the minister of public enterprises. While this is within law, they may act in their own interests and not the public interests.

Corrupt procurement practices, particularly within SOEs, is another aspect where the principal-agent theory is applicable. In areas where unethical political appointments have been made, there have been reports of corruption especially with procurement. The state capture commission is an example of the types of investigations being conducted to unearth these practices. These boards, though intended to run the operations of the SOEs independently, are influenced by their political appointments (De Klerk & Soloman, 2017). In addition, these members are also compensated, and there is concern with the degree to which managers are compensated in ways that align their interests with those of their companies' shareholders.

3. METHODOLOGY

This article used a qualitative approach to investigate aspects of SOE performance over the years and the worsening effect of their operations and non-operations during COVID-19. Articles were purposively selected to gather current and relevant information. These were collected and analysed thematically in order to provide a meaningful contribution to the study. Relevant data was also gathered from other credible sources such as government publications, UN, OECD, IFC and other reputable media. The method was deemed suitable because employing secondary sources can be quite useful in researching a current issue such as the COVID-19 pandemic with a broad geographic scope. Furthermore, this approach also considered comparison of what is happening in other countries with SOE performance, and the strategies that can be employed by a developing country such as South Africa. With the emergence of COVID-19, however, it has become critical to look further and employ a more critical analysis, as the pandemic has led to other related consequences such as job losses, downsizing and closure of most of the SOEs. The first part of the discussion below looks into the effect of the COVID-19 pandemic on the economy of South Africa and the extent to which the COVID-19 pandemic has impacted South Africa's governmental budget. The second part discusses the strategies that can be used by SOEs to assist the economy of South Africa to recover from the losses of COVID-19.

4. EFFECTS OF COVID-19 ON THE ECONOMY

The COVID-19 pandemic has had major economic consequences globally. The impact on the economy has been felt directly and indirectly. Directly, the pandemic has caused the death of infected employees leading to loss of manpower and skills, workplace absenteeism due to illness and lockdowns, reduction in productivity associated with ill health, and stigma associated with fear of infection (Megersa, 2020). Indirectly, the pandemic has led to a negative supply shock and a slowdown in manufacturing productive activity as a result of global supply chain disruptions and closure of factories and businesses (Pak et al., 2020).

Liquidations and business closures

In trying to limit the spread of COVID-19, the government of South Africa was forced to shut down the operations of non-essential industries to prevent the spread of the disease at the workplace. The task of balancing the positive health effects against their economic costs led to stringent lockdown policies in South Africa, and the impacts were extensive and significant (Arndt & Robinson, 2020). The closure of businesses resulted in some of them being liquidated and others declared insolvent as they could not recover to pay for their running costs. According to Table 1 below, liquidations of companies increased by 7,9% (from 1 079 to 1 164), while liquidations of close corporations decreased by 9,6% (from 963 to 871). The total number of liquidations increased by 20,5% in the fourth quarter of 2020 compared with the fourth quarter of 2019. There was a year-on-year increase of 14,2% in December 2020 (StatsSA, 2020). Most of the liquidations happened in the financing, insurance, real estate and business services sectors, followed by the trade, catering and accommodation, then manufacturing sectors. Seasonally adjusted insolvencies increased by 67,4% in

November 2020 compared with October 2020. This followed month-on-month changes of -5,3% in October 2020 and 29,9% in September 2020.

| Number of liquidations December 2020 | % change between December 2019 and December 2020 | % change between October to December 2019 and October to December 2020 | % change between January to December 2019 and January to December 2020 |
|---|---|---|---|
| 153 | 14,2 | 20,5 | -0,3 |

Figure 1: Liquidations of companies for December 2020 (Source: StatsSA, 2020)

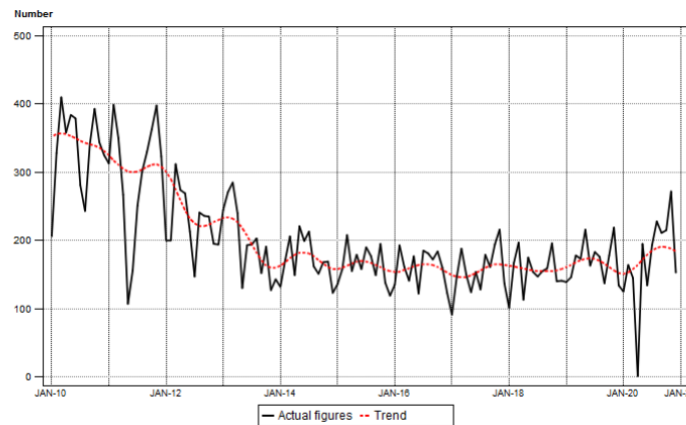


Figure 2: Liquidations of companies for December 2020 (Source: StatsSA, 2020)

According to Figure 2, there was a decline in liquidations in January 2020. However, the number of businesses liquidated increased in the 2nd to fourth quarters of 2020, a consequence of the COVID-19 pandemic.

Slowdown in international trade

Economic uncertainties associated with the lockdowns as well as the spread of the disease has led to a decline in investment and the closing of borders, limiting international trade; this has affected the economies negatively. Data for 2020 indicate a sharp decline in trade growth (about 8 per cent), largely due to the COVID-19 pandemic. The sharpest drop in international trade occurred in the second quarter of 2020, with global merchandise trade falling by more than 20 per cent relative to the same quarter of 2019. Trade trends for the second half, although still negative on a year-over-year basis, are better than during the first half (UNCTAD, 2020). According to Table 2 below, the recovery process has lagged in many of the other BRICS economies, where imports and exports have been low. However, there are positive signs of economic recovery in South Africa.

| Imports | January | February | March | April | May | June | July | August | September |
|--------------------|---------|----------|-------|-------|-----|------|------|--------|-----------|
| Brazil | -1 | 5 | 11 | -15 | -11 | -20 | -35 | -29 | -25 |
| China | -7 | -10 | -1 | -14 | -17 | 3 | -1 | -2 | 13 |
| European Union | -3 | -7 | -12 | -26 | -28 | -12 | -15 | -10 | -2 |
| India | 0 | 4 | -28 | -60 | -51 | -48 | -30 | -26 | -20 |
| Japan | -5 | -13 | -1 | -3 | -25 | -14 | -21 | -21 | -14 |
| Republic of Korea | -5 | 1 | 0 | -16 | -21 | -11 | -12 | -16 | 1 |
| Russian Federation | 4 | 2 | -2 | -20 | -13 | -4 | -13 | -11 | -3 |
| South Africa | -3 | -4 | -17 | -38 | -40 | -43 | -39 | -31 | -15 |
| United States | -4 | -4 | -7 | -21 | -25 | -13 | -8 | -5 | 0 |

| Exports | January | February | March | April | May | June | July | August | September |
|--------------------|---------|----------|-------|-------|-----|------|------|--------|-----------|
| Brazil | -19 | -1 | 5 | -9 | -15 | -5 | -3 | -11 | -10 |
| China | -22 | -10 | -7 | 3 | -3 | 1 | 7 | 9 | 10 |
| European Union | -2 | -3 | -8 | -31 | -32 | -9 | -10 | -9 | 3 |
| India | -1 | 4 | -34 | -61 | -35 | -12 | -10 | -13 | 4 |
| Japan | -4 | 0 | -8 | -19 | -27 | -25 | -18 | -15 | -3 |
| Republic of Korea | -7 | 4 | -2 | -26 | -24 | -11 | -7 | -10 | 7 |
| Russian Federation | -2 | -18 | -20 | -33 | -36 | -26 | -28 | -32 | -14 |
| South Africa | 10 | 6 | -1 | -61 | -28 | -6 | -14 | -3 | 10 |
| United States | 0 | 2 | -9 | -29 | -36 | -24 | -15 | -15 | -9 |

Figure 3: Imports and exports trends of major economies (Source: UNCTAD, 2020)

Although the recovery process seems to be on track in South Africa, there is bound to be a global recession. A study by Chudik et al. (2020) indicates that emerging markets, South Africa included, are bound to have at least eight quarters of severely depressed economic activity. The negative GDP indicates that there will be less demand of goods and services and high unemployment rates in the economy (Mohr et al., 2018).

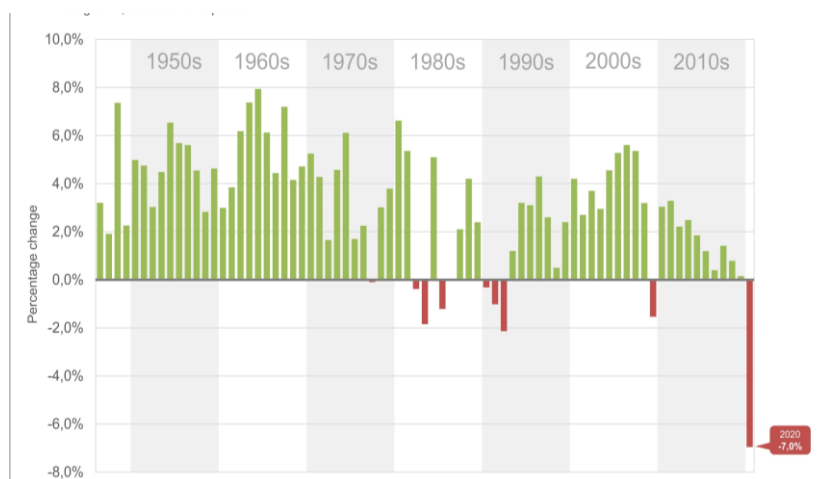


Figure 4: South Africa GDP (Source: StatsSA, 2021)

In comparison to 2019, economic activity for the entire year declined by 7,0 percent in 2020, as seen in Figure 4. This is the country's largest annual drop in economic activity since at least 1946, as compared to previous years. To put things in perspective, the second-largest drop occurred in 1992, when the economy shrank by 2.1%, as shown in the graph above.

The decline in GDP growth has been largely due to the marked slowdown in economic activity

combined with widespread disruptions in both international and domestic supply chains (Bohlmann et al., 2021). The complete lockdown and lockdown closure policies adopted by the highly affected regions such as the EU, US and China led to disruptions to key value chains. This led to reduced demands for African exports, Africa’s foreign direct investment (FDI) inflows, and tourism (Gondwe, 2020). Differences between advanced and developing economies on the impact of COVID-19 have been documented. According to a study by Ang and Ross (2020), in advanced economies, the major economic impact is related to decline in competition among businesses, followed by reduced collaboration between companies. On the other hand, developing countries are faced with different challenges of increased crime and governance issues. On the positive side, the study found that governments in both advanced and developing countries responded to the pandemic quickly. However, with developing countries, public trust in politicians decreased due to widespread incidences of corruption (Ang & Ross, 2020).

5. MEASURES TO ASSIST WITH REFORMATION OF SOES

The government of South Africa provided income support during lockdown, in the form of social grants and unemployment insurance. However, the decline in government revenue collection as a result of lockdown have hampered the sustainability of the income support. Rekindling economic growth is therefore key to building the economy, through structural reform proposals (Arndt & Robinson, 2020). Although the South African president has been advocating for policy improvements to restore macro-economic stability in the country, the country still faces a number of problems, including inefficient SOEs. In addition, the growing public debt in relation to the GDP has been increasing, as shown in the figure below (Mabugu et al., 2021). These require good structural reforms, especially with governance of the SOEs, owing to the dire need for financial sustainability of the country. Structural reforms of the SOEs will assist them to become financially sustainable and reduce their over-reliance on the government for financial support (O’Neill, 2021).



Figure 5: General government gross debt for South Africa (Source: IMF, 2020)

The figure above shows that the debt for South Africa has increased tremendously to almost over 80% of the GDP of the country.

According to Abate et al. (2020), COVID-19 linked interventions to support firms in financial distress may likely increase state ownership of these businesses. While this may be encouraged, it is not ideal, due to the fact that state ownership may provide unfair advantages compared to domestic or foreign competitors and therefore lack incentives to improve efficiency and innovation. In addition, the state

may be tempted to interfere in the running of these companies, through appointing unqualified but politically connected board members or using SOEs to cater for political needs rather than to pursue economic performance (Egert & Wanner, 2016). Comparison studies conducted by Abate et al. (2020) between the effects of governance on performance of SOEs and privately owned organizations found that SOEs have lower returns on equity than their privately owned competitors. Interestingly, in countries where governance of SOEs is closer to best practice, SOEs do not perform worse than privately owned firms.

State ownership of business has been shown to be an important element (Bruton et al., 2015; Christiansen 2011). Studies have shown that SOEs benefit from fast access to debt financing (Brandt & Li 2003; OECD 2012; Chen et al., 2016). Political agendas have also been established as key determinants of SOE financing (Zhang & Zhang, 2016). Capobi and Christiansen (2011) argue that competitive neutrality policies should be followed. This implies that no business entity is advantaged due to its ownership. In most instances, SOEs enjoy privileges and immunities that are not available to their privately owned competitors as they are merely created and cannot distort market competition. Therefore, it is advised that competitive neutrality frameworks (CNFs) focus on reforming the environment that public and private entities compete in. CNF involves a systematic review of the legislative and administrative landscapes in which SOEs operate, to make them on a level playing field with the private sector competitors (Kowalski, et al., 2013).

Wu (2019), in a study in China, found that increasing short term debts by SOEs will harm their performance, while increasing short-term debts of non-state owned SOEs is positively associated with performance. Additionally, saving these SOEs interferes with effective market selection mechanisms and creates long-term economic distortions that do not benefit the economy (OECD, 2020). Therefore, SOEs should not have access to finance at conditions that are better than those available to privately owned firms. SOEs should not benefit from any other favourable treatment that is not available to private firms, such as direct financial subsidies, debt write offs, exemptions from certain taxes, or reception of in-kind benefits. In addition, budgeting processes need to be re-looked into, and adaptation of zero-based budgeting is encouraged. In this case, all expenses have to be justified at the beginning of each period and funding for the SOE is to be based on program efficiency and necessity rather than budget history (Phakathi, 2020). On the other hand, saving ailing firms interferes with effective market selection mechanisms and creates long-term economic distortions that can outweigh short-term benefits to the economy. One way to avoid this outcome is to require target firms to agree on detailed plans on how to restore viability. Such plans need also to decide the distribution of losses among shareholders and the various stakeholders, such as creditors, management and employees.

Ultimately, improvement in management and governance, cost cutting, elimination of waste, corruption and an end to political interference would ensure that the SOEs are reformed and contribute to economic recovery (Baum et al., 2019). The main problem is government interference in the running of SOEs through over involvement in strategic, operational and accountability structures in the entities (Skiti, 2020). In addition, government exposure to SOEs is high and represents a significant risk to debt sustainability and public finances. Underperformance of SOEs is widespread due to mismanagement, corruption, overstaffing and an uncontrolled wage bill, as revealed where

commissions of enquiry have shed light on widespread corruption in the public and private sector (IMF, 2019). This calls for improved prosecution processes and enforcement in relation to national and foreign corruption offences, especially in sectors where corruption has been found to be more prevalent, including utilities, natural resources and transportation (OECD, 2018).

Separation of ownership and control of SOEs will always remain an area of contention in the governance of SOEs. This separation is enhanced by the lack of independent and professional SOE board members, thereby hindering the professional running of the operations and management of the SOE, and leading to corruption and third-party influence over SOE resources (Baum et al., 2020). A study conducted in 2018 of 300 SOEs found that in nearly 40% of the SOEs in which corruption was identified, it involved a board member, public official or shareholders (OECD, 2018). The ownership rights in SOEs should not be exercised by the line ministers in charge of the sectors where the SOE operates. In South Africa, the government, through the minister of public enterprises, appoints the board as well as the CEO. While the board may recommend the CEO, it is the minister who makes the final decision (Thomas, 2011). This often leads to political patronage, resulting in attempts to please the employer. In such appointments that are driven by political motives, competence and independence will be compromised (Kamal, 2010).

Governance problems of SOEs in South Africa have been researched and found to include poor leadership, inappropriate rewards, including excessive pay and benefits, mismanagement of resources and board irregularities (Williams 2010; Ensor 2010; Theunissen 2010; Mambo & Masuku, 2020). These have led to loss of investor confidence (Pressly 2009; Thomas 2010). According to the OECD (2020) governance framework, governments should provide an exit strategy where the initial rationale for the existence of state ownership is revisited as conditions change. In future, when conditions that justify state ownership cease to exist, the need for state ownership should be reconsidered. SOEs are often found in essential and strategic sectors, due to their important role in supplying basic services such as electricity and other public utilities (Mergesa, 2020). However, the failure of SOEs in these sectors may cause systemic problems for the economy (Harris et al., 2020). In other cases, some SOEs may not be offering strategic services and therefore governments should work towards privatizing these SOEs, and they need to clarify what is worth saving with public money. For this reason, review of ownership percentage of SOEs will be required and it is also recommended, that needs analysis should be conducted. In Germany for example, reports are provided to parliament on the extent of privatisation of SOEs, while in Norway the parliament is regularly updated on SOE readiness plans for privatisation (OECD, 2019).

Low productivity of SOEs, low profitability and increasing losses and subsidies to loss-making are a problem. Eskom, being the biggest state-owned enterprise, represents the biggest government contingent liability through debt guarantees. SAA, the national airline company, filed for bankruptcy in December 2019 (OECD, 2020). A failure to proceed with reforms and/or severe liquidity problems could lead to negative market reactions and persistent weak investor confidence. This requires enforcement of company law, regulatory frameworks and King codes on corporate governance in order to impact corporate governance standards (Mekwe, 2015).

A sound growth strategy should be adopted, combined with improvement in corporate governance in SOEs. According to IFAC (2018), the business case for corporate governance is as strong as SOEs as it is for private enterprises. Research from the World Bank on corporate governance of SOEs shows that there are positive direct benefits for SOEs that have commitments to government reforms (WB, 2014). SOEs should also aim to operate like private enterprises, where they become more competitive and eventually will create more employment whilst becoming financially sustainable.

6. CONCLUSION

SOEs in South Africa can play a major role in helping rebuild the economy. The political influence and interference with the operations of the SOEs is a major crisis that requires re-thinking aspects of corporate governance. This article has reviewed how the COVID-19 pandemic has affected the economy of South Africa and considers reforms that SOEs can undertake in order to become financially sustainable in future. The study concludes that there should be a shift in governance framework for SOEs that clearly sets company-specific goals in terms of profitability, capital structure and non-financial objectives. Restructuring of SOEs should be done to ensure that there is financial sustainability through private participation. Clear separation of the responsibilities of the board and the management of SOEs is emphasized, by giving the board the mandate to strategically supervise, monitor and audit the management of SOEs.

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INTEGRATION OF ICT IN TEACHING AND LEARNING OF ECONOMICS AND MANAGEMENT SCIENCES: STUDENT TEACHERS' PERSPECTIVES IN SOUTH AFRICA

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ABSTRACT

Changes in technology and the emergence of the 4th industrial revolution are influencing the way people live and work. To take advantage of the developments in technology in the 21st century, integration of ICT in schools is imperative, not only in administration but also in teaching and learning. For this to be effective, it is of paramount importance to thoroughly prepare student teachers to be ready to adopt ICT in their classrooms. The aim of this study was to find out the extent of ICT integration in the teaching of Economics and Management Sciences (EMS) subjects in schools. The study adopted a quantitative method of study where questionnaires were used. Open and closed-ended questions were used to gather information from EMS student teachers at a university in South Africa in their final year of study. A total of 47 students participated in this study. Data was analysed using means and histograms and themes were identified from the open-ended responses. The results indicated that while most teachers are using ICT in the teaching of EMS, integration of ICT in teaching EMS in schools is inhibited by lack of resources in the schools, and the adoption of ICT in teaching and learning of EMS can be improved through training teachers. It is recommended that schools provide basic teacher training on the use of ICT and that more funding be allocated to the provision of resources, to enhance teaching and learning that will be beneficial to students in this era of technology

Keywords: ICT, economics, management sciences, teaching and learning, South Africa

1. INTRODUCTION

Information Communication Technology (ICT) integration in schools has contributed greatly to the way teaching and learning is done in recent years (Brun & Hinostroza 2014; Mitchell 2019). The recent crisis of COVID-19, which led to the closure of schools and adoption of online teaching and learning globally, has called for changes in the availability of resources in South Africa. Data shows that the majority of developing countries in Sub-Saharan Africa are lagging behind in ICT integration (Amuko et al. 2016; Mooketsi & Chigona 2014). Mou (2016) argues that education is at a stage where the use of technology is no longer a luxury but a necessity, and therefore teacher preparation becomes not only paramount, but a professional responsibility. The importance of ICT use in schools has been researched widely and it has been found that IT integration improves the quality of education by

helping learners learn more effectively (Korkmaz & Demir 2012). The use of ICT in the classroom helps students by enhancing their collaborative skills, which enhances active learning (Ghavifekr & Rosdy 2015).

While the world is looking into the 4th industrial revolution, there are still challenges in the basic use of ICT in schools. The main hindrance is lack of infrastructure to support ICT in teaching and learning, such as computer laboratories and ICT equipment (Mou 2016). In areas where these are available, their usage is quite low (Teo 2015; Demil 2013). In order to remedy this, Gunduz (2020) argues that preservice teachers therefore should be equipped with knowledge on the use of ICT in their training, in order to put the ICT use into practice. In addition, pre-service teachers' observation of their teachers while using technology may lead them to integrate ICT into their own teaching (Tondeur et al. 2016). While this is encouraged, studies have shown that graduating teachers are still unprepared to use technology in their classrooms (Mitchell 2019), and therefore preparation of pre-service teachers to execute their duties in the 21st century effectively forms the main goal of most institutions (Nkula & Krauss 2014; Padayachee 2016). This will assist learners in this digital era as they require teachers to have skills to integrate technology in their teaching, and the use of ICT serves to actively engage learners in their classrooms. (Kidd 2013). Although several studies have been done on ICT in schools, few studies have been done in the Economics and Management Sciences disciplines, especially in emerging countries such as South Africa. Therefore, this study aims to establish the extent of ICT integration in teaching and learning of Economic and Management Sciences subject.

The study aimed to achieve the following objectives:

- 1.1 To establish the importance of ICT integration in teaching of EMS.
- 2.1 To identify the challenges associated with integration of ICT in EMS.
- 3.1 To determine the strategies used to assist with integration of ICT in EMS.

2. LITERATURE REVIEW

This section briefly discusses literature related to the importance of ICT integration in teaching and learning generally as well as challenges associated with ICT integration in teaching and learning.

2.1 Importance of ICT in teaching and learning

The importance of ICT integration in teaching and learning has been widely discussed. It has been found that the use of ICT helps to enhance different skills of learners. Sanchez and Aleman (2011) argue that frequent integration of ICT in teaching and learning can help develop higher critical thinking skills. ICT use helps build collaborative learning (Tondeur et al. 2016). Integration of ICT leads to enhancement of students' attention and improves participation (Rabah 2015), and ICT, through stimulating audio-visual illustrations, makes learning to be enjoyable and interesting (Alkhatani 2017). Scholars have therefore argued that although there are many advantages of ICT use in teaching and learning, they are still not used effectively. For instance, Mbodila et al. (2013) argue that ICTs do not in themselves improve students' learning opportunities but educators who use ICT thoughtfully do. This is supported by Thomas et al. (2013) who emphasize that the ability of

teachers to integrate ICT in their teaching and learning is influenced by knowledge, skills and competencies received during their teacher training.

However, teacher training on the use of ICT is not enough and therefore there is a need for the establishment of better strategies, which include policy and resource shifts. Razak et al. (2019) argue that school leaders have a role in ensuring that employees are aware of ICT policies in their schools. This is necessary to create a positive attitude towards the use of ICT. On the other hand, a study by Tedla (2012) conducted in schools in East Africa showed that schools do have ICT policies in place, however, implementation of these policies is hampered by the lack of ICT training of pre-service and in-service teachers. Various strategies can be used to stimulate the use of ICT in teaching and learning in schools, including the use of policies, training of teachers and use of resources. For schools that have ICT resources that are not being utilized, there should be means to motivate the teachers to use them, as lack of use leads to wastage of resources. A study conducted in Chile by Howie (2010) found that the solution to scarcity of ICT resources in Chile was to take computers from schools that were not utilizing them and make them available to schools that were best able to use them.

2.2 Challenges of ICT integration in teaching and learning

The article gives a brief discussion of the common challenges identified in the literature, categorised into three main aspects: resistance to change; lack of training of users; and lack of resources.

Resistance to change is linked to negative attitudes towards adoption of ICT. Using the technology acceptance model, Teo (2015) argues that if users of ICT perceive technology as complex, they may avoid using it as it may impact the perceived usefulness of the technology. However, this can be resolved using a change management process. A study by Kimanzi (2018) found that teachers as end users of IT were against the introduction of a new IT system in the school as there was poor communication from the management. Therefore, lack of change management could lead to a negative attitude towards use of technology by teachers in the classroom. Although this may be applicable, it is also important to understand other hidden reasons that lead to resistance to technology adoption. A study by Bordbar (2010) found that teachers with negative attitudes towards ICT in teaching and learning lacked basic ICT knowledge and skills. In contrast, Razok et al. (2019), in their study in Pacific Asia, found that teachers were against ICT training as they felt that they were not ready for it.

Another challenge associated with ICT integration in teaching and learning relates to lack of training of teachers. Research has found that lack of knowledge of ICT products, compounded with lack of training, hinders the integration and use of ICT in teaching and learning (Koehler & Mishra 2009; Hew & Brush 2007; Tezci 2011; Alkahtani 2017). However, various reasons have been put forward as to the causes of lack of training. Yildirim (2007), in his study in Turkey, found that lack of ICT integration in schools was due to the lack of in-service training of teachers. Hutchinson and Reinking's (2011) study found that lack of knowledge on how to combine technology with pedagogical content knowledge to support student learning is a major hindrance to ICT integration in schools in the USA. In contrast, Almekhlafi and Almeqdadi's (2010) study in the UAE found that lack of training was caused by insufficient time to master and integrate ICT into teaching and learning. For those who have received training, there seems to be discrepancies in levels of ICT skills for

teachers at various levels of their services. A study by Kihzoza et al. (2016) in Tanzania revealed that teacher trainees exhibited poor skills in the use of basic ICT skills. Another study in Turkey by Gunduz (2020) found that in-service teachers specializing in MSTE programs have higher ICT support than in social sciences. This is an indication that the use of ICT may well vary based on training.

Lack of adequate ICT equipment is one of the key aspects that hampers ICT integration especially in rural schools in South Africa. Studies by Padayachee (2017) and Matherula and Uwizeyimana (2014) in South Africa confirm that principal barriers mentioned for lack of ICT use were lack of infrastructure and resources as a result of lack of funding and poor resource allocation. Due to this, teachers are unable to use technology in their classes, and this hampers learning negatively. In schools where resources are available, lack of technical support has been highlighted as a problem. According to Jamieson-Proctor et al. (2012), insufficient technical support for ICT may become a source of frustration for both teachers and learners in schools, who may prefer not to use ICT in their teaching and learning due to fear of equipment failure. This would make teachers sceptical about use of ICT in their classes, as evidenced in Malaysia by Kamaruddin et al. (2017) and Lehi and Salehi (2012) in Iran.

3. METHODOLOGY

3.1 Research design

The study was based on a survey of respondents to establish the importance of ICT in the teaching of EMS. The method used in this research was quantitative, where questionnaires were distributed containing both open and closed-ended questions, to obtain both facts as well as opinions of the respondents. The method was suitable because the relationship between the researcher and participant is negligible, contact is brief and therefore there is less interference and bias, while also giving the respondents freedom to explain their responses (Cohen et al. 2011).

3.2 Population and Sampling

A population is the total collection of elements about which one wishes to make some inferences (Maree 2016). The population in this study was third year student teachers specializing in Economics and Management subjects. A sample is a group of individuals from which data are collected, emanating from a population (McMillan & Schumacher 2010). Due to the small size of the population, simple random sampling was done where questionnaires were distributed to students in their classes. Out of a total of 63, 43 questionnaires were received, indicating a response rate of 75%.

3.3 Research instrument

The research instrument used was a questionnaire consisting of six sections. Section A was demographic information of the respondents in the form of closed-ended questions. Section B aimed to find out the respondents' attitudes towards the use of ICT in the teaching of EMS. It consisted of closed questions and questions with a four-point Likert scale ranging from strongly disagree to strongly agree. Section C aimed to find out the respondents' observations of the obstacles to using ICT in teaching EMS. These were closed-ended questions with four-point Likert scales ranging from

strongly disagree to strongly agree. Section D sought to find out the respondents' agreement on the importance of using ICT in teaching EMS. These were closed-ended questions with four-point Likert scales ranging from strongly disagree to strongly agree. Section E aimed to find the respondents' ratings on strategies that schools can use to enhance ICT integration in the teaching of EMS. These were closed-ended questions with 10-point rating scores ranging from 1-10, with the ratings increasing in level of importance. The last section, F, consisted of open-ended questions which were given to the respondents to observe and share challenges that are inhibiting the integration of ICT in teaching EMS in schools, and also solutions that can help schools to integrate ICT in the teaching and learning of EMS.

3.4 Data collection

Questionnaires were distributed to the Economic and Management Sciences students who had finished their teaching practice. The respondents were given a few days to complete the questionnaires and they were collected thereafter. Out of a total of 63, 47 questionnaires were collected, a response rate of 75%.

3.5 Data analysis

Data analysis was done in two stages. The first involved closed-ended questions, which were analysed using the SPSS version 24 software tool and presented using means and frequency tables, while the second stage involved analysis of open-ended questions. These were analysed by use of themes which emerged from the written responses.

4. RESULTS AND DISCUSSION

The results presented are based on the main objectives of the study, which were to establish the importance of using ICT in the teaching of EMS, challenges observed in implementation of ICT, and solutions that can be used to assist with the integration of ICT in the teaching of EMS.

4.1 Demographics

This part provides relevant information on the gender and age of the respondents, to find if there were any relationships with other findings.

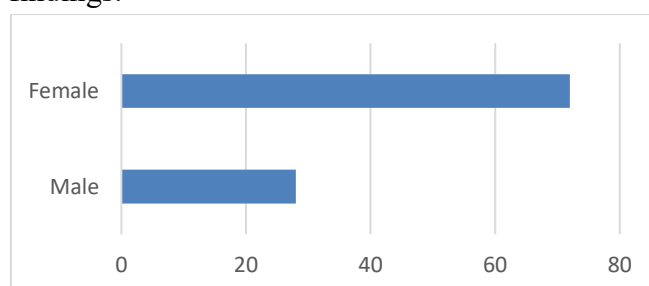


Figure 1. Gender of the respondents

Results indicated that there were more females than males. This corresponds with statistics found generally in the teaching profession indicating there are more females than males (Taole & Wolhuter 2019).

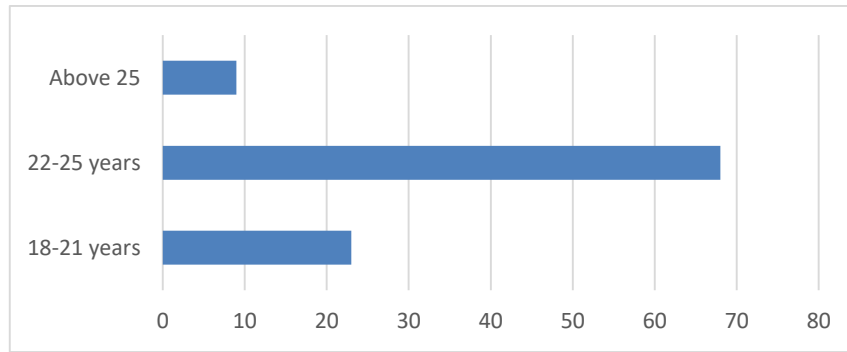


Figure 2. Age of the respondents

The predominant age of the respondents was between 22-25 years, and this corresponds with the usual age of senior students.

4.2 The importance of using ICT in teaching of EMS

This section discusses information related to the importance of using ICT in the teaching of EMS.

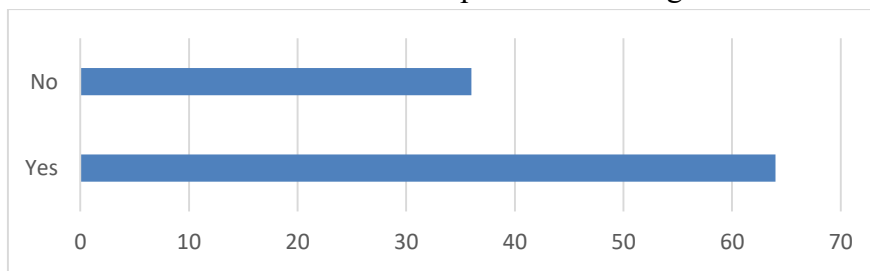


Figure 3. Use of ICT tools in the teaching of EMS

The majority of the respondents (64%) indicated that they observed the use of ICT in the teaching of EMS by other teachers in schools where they were practising, while 36% indicated that they did not observe the use of ICT tools in the teaching of EMS subjects.

This section details the results of the importance of ICT integration in teaching EMS.

Table: Importance of ICT integration in teaching and learning of EMS

| ITEMS | Mean | Std Deviation |
|---|------|---------------|
| ICT makes the course content livelier | 3.38 | 0.677 |
| ICT can help students to acquire understanding and insight | 3.32 | 0.867 |
| ICT makes students not to think anymore | 1.89 | 0.699 |
| Using ICT makes students enthusiastic | 3.19 | 0.647 |
| Students are more behaved and under control with the use of ICT | 2.83 | 0.892 |

| ITEMS | Mean | Std Deviation |
|--|------|---------------|
| Students pay less attention when ICT is used in teaching | 2.43 | 1.016 |
| Students make no effort for their lesson if ICT is used in teaching | 2.36 | 1.009 |
| The use of ICT promotes active learning and engaging lesson for students' best learning experience | 3.36 | 0.870 |
| The use of ICT enables students to express their ideas and thoughts better | 3.17 | 1.070 |
| The use of ICT helps to improve students' abilities specifically in understanding illustrations and graphs | 3.62 | 1.153 |

The results indicate that the use of ICT is important as it helps to improve students' abilities in cases of illustrations and graphs (mean of 3.362), and it promotes active learning and engaging lessons for students (mean of 3.36). There was disagreement that the use of ICT makes students participate less and lose focus in the subject (mean of 1.89). Further, there was also disagreement that students make no effort if ICT is used in teaching and learning (mean of 2.36). The results generally indicate that the benefits of ICT outweigh the costs, and that use of ICT is recommended.

Figure 5. Indicate your agreement as to your preparedness on the following pedagogical use of ICT in EMS

| ITEM | Mean | Std dev |
|---|------|---------|
| I can prepare lessons that involve use of ICTs by students | 3.17 | 0.601 |
| I know which teaching/learning situations are suitable for ICT use in EMS | 3.15 | 0.659 |
| I know where to find useful curriculum resources on the internet for teaching EMS | 3.13 | 0.448 |
| I can use ICT for monitoring students' progress and evaluating learning outcomes | 2.89 | 0.699 |
| I can use ICT to give effective presentations/explanations | 3.26 | 0.570 |
| I am aware of the great opportunities that ICT offers for effective teaching | 3.49 | 0.688 |
| I feel confident learning new ICT skills | 3.26 | 0.896 |
| I avoid using computers whenever I can | 2.13 | 1.244 |
| I feel confident when working with computers | 3.09 | 1.158 |
| I can still have an effective teaching without the use of ICT | 3.79 | 1.122 |

The results indicated that the student teachers are well prepared in the use of ICT tools in teaching

and learning, they are aware of the importance of using ICT to enhance teaching and learning of EMS (mean of 3.49), they can use ICT to give effective presentations and they feel confident learning new ICT skills (mean of 3.26). Despite the positive responses, an interesting contradictory observation is the level of agreement indicating they can have effective teaching without the use of ICT (mean of 3.79). The least knowledge of ICT generic functions includes the use of ICT tools to monitor progress of the students (mean of 2.89).

4.3 Challenges associated with implementation of ICT

This section discusses questions relating to challenges of integrating ICT in the teaching of EMS.

Figure 6. Obstacles in using ICT in teaching and learning of EMS

| Item | Mean | Std dev |
|---|------|---------|
| Use of computers/methods that are out of date | 2.49 | 0.953 |
| Lack of adequate skills of teachers | 3.23 | 0.633 |
| Insufficient technical support for teachers | 3.21 | 0.832 |
| Lack of adequate content/material for teaching | 3.15 | 0.751 |
| Too difficult to integrate ICT use into curriculum | 2.66 | 1.027 |
| Lack of enough time | 2.85 | 0.955 |
| Pressure to prepare students for tests and exams | 2.96 | 0.859 |
| Most teachers not in favour of the use of ICT at school | 3.23 | 0.983 |
| Lack of support from school management | 3.30 | 1.178 |
| Most parents not in favour of the use of ICT in school | 2.72 | 1.425 |

Results indicated that integration of ICT in teaching and learning in EMS is hampered by lack of support from school management (mean of 3.30), lack of adequate ICT skills of teachers, and that most of the teachers are not in favour of the use of ICT in schools (mean of 3.23). The least of the obstacles included use of computers that are outdated (mean of 2.72), lack of parental support (mean of 2.49), and difficulty in ICT integration in the curriculum (mean of 2.66).

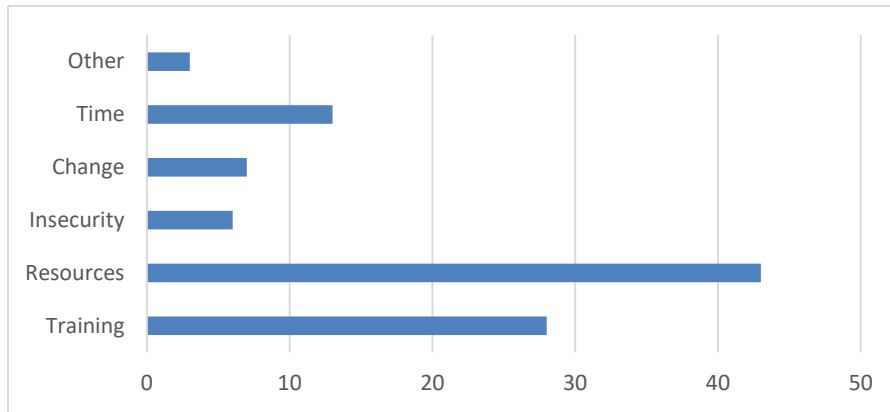


Figure 7. Challenges inhibiting the integration of ICT in teaching EMS in schools

The results of the open-ended question indicated that lack of resources in the schools inhibited use of ICT in the teaching of EMS (43%), followed by lack of training of teachers on the use of ICT (28%), pressure of time to complete the syllabus and therefore no time to use ICT in teaching (13%), resistance to change and use of technology (7%), insecurity, vandalism and theft (6%), and other (3%).

4.4 Strategies that can be used to assist with integration of ICT in teaching of EMS

The section aimed to find out the strategies that can be employed to enhance ICT integration in schools.

Figure 8. Level of importance of strategies in schools to enhance ICT integration

| ITEM | Mean | Std dev. |
|---|------|----------|
| A policy and actions to use ICT for teaching and learning in all school subjects | 7.04 | 2.043 |
| Regular discussions with teaching staff about ICT use for pedagogical purposes | 7.96 | 2.085 |
| A specific policy or programme to prepare students for responsible internet behaviour | 8.02 | 2.279 |
| A specific policy about using social networks in teaching and learning | 7.66 | 2.098 |
| Scheduled time for teachers to meet, share and develop instructional materials | 7.89 | 2.664 |

Results indicated that there should be a specific policy or program to prepare students for responsible internet behavior. This emerged as the preferred strategy (mean of 8.02), followed by regular meetings and discussions with teaching staff about ICT use for pedagogical purposes (mean of 7.96), while the least preferred strategy was a policy for use of ICT for teaching and learning in all school subjects (mean of 7.04).

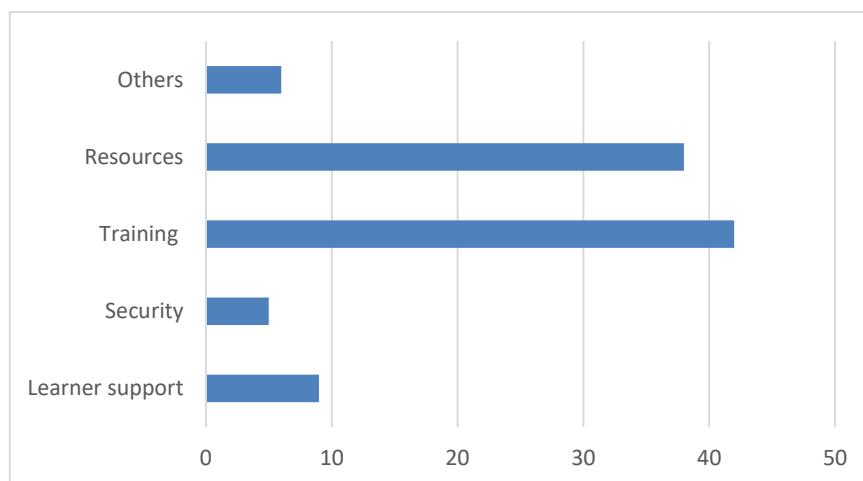


Figure 9. Solutions that can be used to assist with integration of ICT in teaching EMS

The responses elicited from the open-ended questions found that training of teachers on the use of ICT in teaching and learning was preferred (42%), followed by provision of ICT resources (38%), provision of learner support to enhance use of ICT (9%), beefing up of security (5%), and others (6%).

5. DISCUSSION

5.1 Importance of using ICT in the teaching of EMS

The study found that the integration of ICT is important as it helps improve students' understanding abilities. This concurs with studies by Sachez and Aleman (2011), Graviker and Rosdy (2015), and Korkmaz and Demir (2012). Studies indicate that to enhance understanding of content knowledge, there is a need to stimulate thinking. The use of audio-visual tools in teaching and learning can be one way of doing this. This can be done using various media such as YouTube videos, PowerPoint slides, and smartboards, among others. A study by Kimanzi (2019) found that YouTube videos are a powerful tool to enhance understanding of content and stimulate active learning in Economics students. This is in agreement with this study that indicates ICT improves the lesson and makes it interesting. This is extremely important, taking into cognisance that this is a digital era, learners are technologically savvy and use technology in their everyday life (Kidd 2013). Pre-service teachers' efficacy and level of knowledge of the use of ICT will determine the rate of usage when they get into actual teaching. The study found that pre-service teachers are aware of the importance of ICT in teaching and learning and that they can prepare lessons in EMS well using ICT tools. This is mostly attributed to ICT classes at university that have prepared them well for their duties (Nkula & Krauss 2014; Padayachee 2016). The findings in this study contradict studies by Mitchell (2019) which found that graduating teachers were not ready to use the technology in their classes. Despite this, the study also revealed that pre-service teachers can teach effectively without the use of ICT. While this is encouraging, it may eventually lead to less usage of ICT in schools when they graduate, and therefore the benefits of the use of ICT should be emphasized due to changing times and conditions of the 21st century.

5.2 Challenges of using ICT in the teaching and learning of EMS

The study found that lack of support from school management was the biggest challenge inhibiting the adoption of ICT. This concurs with studies by Padayachee (2017) and Mathebula and Uwizeyimana (2014). There cannot be technology without resources, and the first step in implementation of ICT in teaching and learning is through making the resources available. This is a major problem in developing countries as most schools are found wanting with no resources (Mooketsi & Chigona 2014). Interestingly, lack of management support was also found to be a challenge. This is tied to having a vision that doesn't support acquiring ICT resources, due to shortage of funds. In addition, the study found that lack of adequate skills of teachers was a hindrance to ICT integration. This concurs with studies by Amuko et al. (2015). Another interesting observation was attributed to the fact that most teachers are not in favour of the use of ICT at school. Though the reasons behind this were not identified, it could be attributed to the lack of time in which to use and learn ICT skills, due to deadlines and overload.

5.3 Strategies to assist with ICT integration

The study found that regular discussions with the teaching staff about the importance of ICT use for pedagogical purposes would be ideal, coupled with teacher training in the use of ICT. This concurs with Razak (2019) who recommends that school leaders should inform their subordinates on ICT policies and their importance, and not sit with non-functional policies. In addition, provision of resources is another strategy that can be used to enhance teaching and learning. Surprisingly, the study also found that there were concerns about learners' use of irresponsible internet behaviour; this emerged as one of the strategies that needs to be adopted by schools through coming up with programs to teach them on the importance of responsible behaviour. This could be a reason why internet use shift may not be made available to learners, in order to assist with their studies in schools.

6. CONCLUSION

The study investigated the extent of ICT adoption in teaching and learning of EMS subjects in schools in South Africa, the importance of ICT integration in teaching of EMS, and challenges associated with integration of ICT in the teaching and learning of EMS. The study found that ICT integration in teaching and learning of EMS is high, and that integration of ICT is important as it helps improve students understanding abilities. The study also found that the main challenge in ICT integration is lack of resources and support from management. Lastly, the study found that regular discussions with the teaching staff about the importance of ICT use for pedagogical purposes would be ideal, coupled with teacher training in the use of ICT. An important finding to emerge from this study is the need for a specific policy or programme to prepare students for responsible internet behaviour.

However, the study is limited in that although the study was based on one subject, most of the responses were generic and not specific to the subject. Further research should concentrate on schools that have been provided with fully equipped ICT laboratories in rural areas and investigate their usage in teaching and learning.

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THEORY AND PERSPECTIVE IN THE INTEGRATED DEVELOPMENT PLANNING PROCESS AT LOCAL MUNICIPALITY LEVEL IN SOUTH AFRICA

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ABSTRACT

This study looks at theoretical and perspectives of the Integrated Development Planning Process IDPP to determine if these frameworks were sufficient for broader community involvement at the local municipality of South Africa. This quantitative study followed a case study approach, using cross-sectional data collected with a semi-structured questionnaire from stakeholders involved with the IDPP. A stratified sampling process was followed, and the reliability of the instrument was tested using Cronbach's coefficient alpha ($\alpha=0.974$). Analysis from the study reveals females participated more in the IDPP compared to males (40.4% males and 59.6% females) and the most active age group of respondents were those of ages 31-40. Characteristics of community representatives were also found to have a positive correlation with job category (0.352) while changes due to community involvement in the IDPP has a positive correlation with job category (0.427). There was a negative correlation between qualification (-0.304) and the number of councillors (-0.417) while attitudes of community members towards IDP process was found to be positively correlated to the job category (0.446) but negatively correlated with the number of councillors (0.232). The impact of community involvement on service delivery has a positive relationship with job status (0.427) and the number of councillors (0.511). The study has shown that the IDPP at local municipality level has challenges because community participation is limited leading to the persistence of service delivery protests at local municipality areas of South Africa.

Key Words: Integrated Development Plan Process (IDPP); Local municipality, Perspectives, South Africa, Theory.

1. INTRODUCTION

Kast and Rosenzweig (1981) argue that the General System Theory revives the purposeful behaviour of the living and non-living parts of an organisation as well as the complex interrelationships between the different parts. Rotman, van Asselt, Anastasi, Greeuw, Mellors, Peters, Rothman and Rijkens (2000) on the other hand believe that sustainable development cannot be put in place to address one perspective, due to increasing technological development and knowledge that contributes to the complexity. As such, planning for sustainable development is becoming more challenging than in the

past. Hence, there is a need to apply new methodologies, skills, scientific knowledge to identify objectives correctly when developing an Integrated Development Plan (IDP) for a local municipality.

In the examination of the early management theories Angus and Kwok (2014) have argued that, currently, management theories had become multi-faceted with emphasis shifting from behavioural science to organisational structures and quality assurance. Community involvement relates to how organisations contribute towards community development. Community contributions are based on the fact that an organisation is a part of the community, and therefore they share the same interests and objectives (Lisa-Maria and Jens Newig, 2019). Although, the current research study identifies the early traditional management theories which focus primarily on production, management, organisation, technology and science within an organization (Angus and Kwok, 2014), these theories none the less paid little attention to how people might be impacted, how they react and are likely to react in future.

The Municipal Systems Act provides that, public administration must be accountable, and transparency must be fostered by providing the public with appropriate, accessible, and accurate information (Sebei, 2013). However, Chikere and Nwoka (2015) purport that the systems theory, on the other hand, focuses on a functioning relationship between the parts of an organisation since an entity is a system consisting of integrated parts existing within a particular environment that must be coordinated for efficiency and effectiveness. According to Ling *et al.* (2009), the effectiveness of community engagement depends on the timing while Van Niekerk (2014) believes that one way of ensuring that communities are involved in the planning process of a municipality is through legislation.

The Integrated Development Planning Process (IDPP) is an approach used by local municipalities in South Africa to find solutions to service provision challenges. The plans are meant to coordinate all three (National, Provincial and Local) spheres of government in an orderly manner to enhance the quality of life of the people living in a specific municipal area (Department of Local Government Guide Pack, 2000). Van der Walt (2007) stated that the IDP process is a mechanism through which municipalities identify problems and issues with the full participation of a community as well as to develop priorities, objectives, and strategies to address service delivery issues. The Integrated Development Planning process (IDPP) is also a management tool that gives guidance to municipal activities. Since the promulgation of the IDPP Act in 2000 and the subsequent changes thereafter, many local municipalities across South Africa are still facing implementation challenges of the IDPP in line with this Act. This study looks at perspectives in the IDPP and whether the theoretical basis used to develop IDPP frameworks were sufficient for broader community involvement in the IDPP at the local municipality (Ntlabezo, 2013).

Municipal data and intelligence report of 2018 reveals inadequate provision of services (service delivery) protests rose from 34 in 2005 to 173 in 2018 (Municipal IQ, 2018). This amid the promulgation of the Municipal Systems Act (No. 32 of 2000). The act legislates and outline processes to be followed when developing an Integrated Development Plan (IDP) at a local municipality level (Ratlou IDP 2017). The Act compels a local municipality to put systems in place that encourages the community to participate, contribute, built capacity and participate effectively in the planning of

services needed in the community. However, the Auditor General's report of 2014/15 reveals that the Ratlou local municipality did not comply with the Municipal Systems Act (No. 32 of 2000). The report concluded that the expenditures incurred were not in accordance with the municipality's priorities as outline in the IDP of the municipality (Ratlou Annual Report, 2014:15). Since the 2014/15 financial year, the Integrated Development Planning process of the Ratlou local municipality in which short-, medium- and long-term planning of activities are set out have been changing the Auditor General's report of 2014/15 (Ratlou Annual Report, 2014:15). Dissatisfaction by residents in communities managed by local municipalities may emanate from insufficient refuse removal, sanitation, and access roads, argue Mofela (2017). The current study reviewed literature related to IDPP and hypothesised that the increasing number of service delivery protests at local municipalities' areas across South Africa may be attributed to inadequate community involvement in the IDPP as well as poor provision of services at the local municipality level across South Africa.

2. LITERATURE REVIEW

Service delivery protests in South Africa is on the rise and it is necessary to establish the root cause of these protests. The Eastern Cape province of South Africa has been rated as the most affected province, followed by Gauteng but the national statistics reveal an increasing trend from 137 in 2016 to 173 protests in 2017. The North-West Province of South Africa holds the 6th position with 9% of the national protests in South Africa (Municipal Data Intelligence and report, 2018). In the North-West province, most service provision protests occur in the Ratlou local municipality area where residents still travel long distances to access basic services such as water.

2.1 Conceptual [Perspectives] and theoretical frameworks

The ultimate goal in a municipal environment is to deliver services to communities under their jurisdiction, Integrated Develop Plan [IDP] Report (2012/13). It is therefore imperative for municipalities to ensure communities are satisfied with the services they provide. The needs of communities are identified and prioritised through a strategic plan document and community involvement in this process is crucial. Through community involvement and their contribution in designing the IDP, improved service delivery based on proper identification, prioritisation and the alignment of activities within the available budget are achieved. To ensure that these needs are taken into action, they are operationalised so that they can be measurable as depicted in figure 1.

The Municipal Structures Act (No. 117 of 1998) gives municipal mayors the responsibility of developing the IDP. This Act emphasises that the municipal mayor must identify, review, and evaluate community needs in order of priority. This act further states that, the municipality should recommend strategies, programmes, and services to address priority needs.

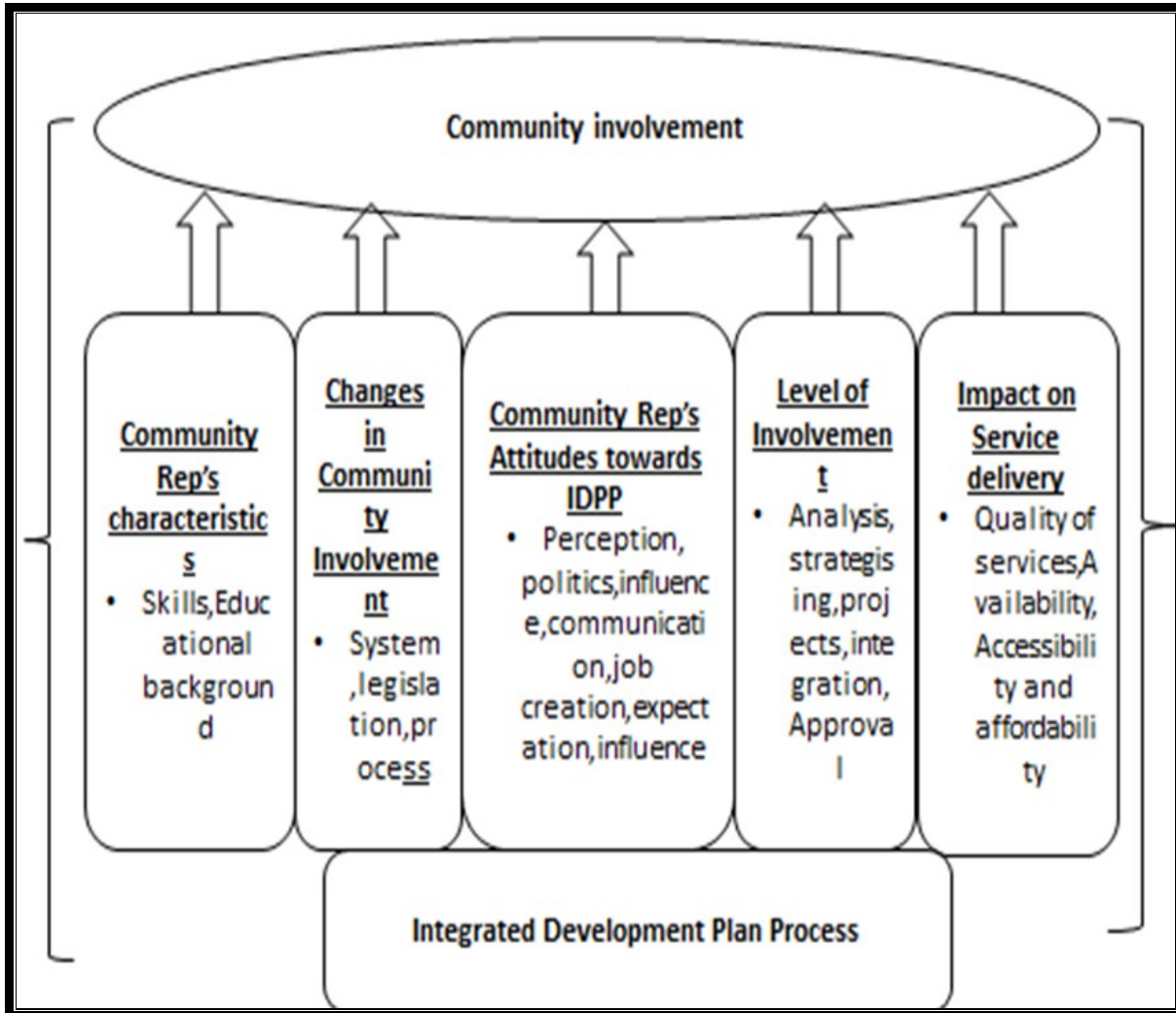


Figure 1: The Integrated Development Planning Process Source: Researcher’s illustration

The ultimate goal in a municipal environment is service delivery. The municipality needs to ensure communities are satisfied with the services they provide through the participation of community representatives in the Integrated Development Planning Process (IDPP). The municipal officials must further monitor the changes in community involvement, attitudes of the community representatives towards the process, the level at which community representatives are involved in the process and how these affects service provision and quality to the communities. Through the Integrated Development Plan process, a municipality must strive to satisfy its constitutional mandate of providing all the basic services needed by a community. All these needs are identified and prioritised through a strategic plan document and community involvement in this process is crucial. Through community involvement and contribution in designing the Integrated Development Plan (IDP), improved service delivery based on proper identification, prioritisation as well as the alignment of activities to the available resources is achieved.

2.2 Theories and legislations in the Integrated Development Planning Process (IDPP)

Community involvement in this article relates to how organisations contribute towards community development. Contributions can come directly from the organisation or from those who share the same interests with an organisation. An organisation is considered part of the community and therefore they share the same interests and objectives (Lisa-Maria, and Jens Newig, 2019) as residents of a particular community. Ling *et al.* (2009) opined that the effectiveness of community engagement depends on the timing because when an engagement takes place timeously, it will be beneficial to all stakeholders. Hence, community engagement must be fostered at the initial stage of the IDPP to allow all stakeholders to assess benefits and risks. In the Ratlou local municipality of South Africa, the process starts by adopting outlines of activities that should unfold during the financial year, allocating roles and responsibilities as well as time and dates clearly established. Furthermore, appropriate committees and consultation forums are established, and this stage is known as the planning stage, Municipal Financial Management Act (No. 56 of 2003) affirms.

Van Niekerk (2014) highlighted that one way of ensuring that communities are involved in the planning process is by legislation. In the study, it was argued that South Africa is a country that can be used as benchmarking legislation on the Integrated Development Process. But Rotmans, van Asselt, Anastasi, Greeuw, Mellors, Peters, Rothman, and Rijkens (2000) believe that planning for sustainable development brings about more challenges, and there is a need to apply new methods, professional skills, scientific knowledge and identified objectives to assist when doing the planning.

2.3 Legislation guiding Integrated Development Planning process of South Africa

Hlongwane (2011) emphasised that section 152 of the Constitution of the Republic of South Africa ensures that municipalities must ensure that communities are allowed to participate in matters affecting them and to make inputs in the decision-making process. Furthermore, Mosotho (2013) noted that the Municipal Systems Act (No. 32 of 2000) empowers municipal councils to put in place proper systems, procedures, and mechanisms to allow community participation in the IDPP. While Matabane (2017) revealed that section 195 of the Constitution of South Africa further outlines the values and principles that must be promoted by public administration in the encouragement of communities to participate in the decision-making process of government. The emphasis is on the necessity to respond to the needs of the community and the government must provide feedback on the services to be rendered as well as information regarding those services must be correct and be available at the right time.

According to the Local Government Transition Act 1993 of South Africa, membership in the local government forum must promote “the principle of inclusivity and representatively”. This act obliges representation from the main sectors that are present in the community in the negotiating forums when developing an Integrated Development Plan (IDP). Ntlabezo (2014) explains that the legislative framework does exist in South Africa which establishes the basis for the formulation and implementation of the Integrated Development Plans (IDP) and key areas of the plan must reflect the Municipal Systems Act (No. 32 of 2000). Furthermore, it is suggested in the White Paper on Local Government (1998a) that, any change in the way municipalities function must comply with the

outcomes of a developmental local government and the Integrated Development Plans are seen as vehicles to meet this mandate (DPLG, 2000). This white paper) identifies several motivations for Integrated Development Planning and acknowledged the many challenges communities going through as a result of poor service provision.

In developing the IDPs, Section 24 of the Municipal Systems Act (MSA, 2000) requires cooperation between the different spheres of government. In this regard, it requires the alignment of municipal IDPs across municipalities in a particular district and “other organs of state”. To ensure this alignment is realised, the district municipalities are required to provide a framework for the integrated development planning in their district MSA 2000), Section 27(1)). Therefore, the South African government associates public participation in the IDPP with democracy (MSA 1998a) and governance (DPLG, 2000) as described by the IDP Guide Pack 1 (DPLG 2001a: 38) as one of the ways of enabling “interaction between local government and citizens.”

According to Mosotho (2013), the legislative framework on community participation thus establishes a system for establishing committee representatives from municipal wards. These serve as a structure that communicates with the municipality on behalf of communities. Furthermore, municipalities are also mandated to communicate and consult communities on all affairs affecting the communities. However, due to resource constraints, municipalities cannot always address those needs within the expected timeframe. This could be a failure of the municipality to provide timeously services to the community from a residence perspective that could result in the community disassociating themselves from any public participation conducted by the municipality (Makgoba and Ababio, 2004).

According to Khawula (2016), Section 16 of the Municipal Systems Act (2000) states that community participation is a central pillar to the IDP process. This section calls for the municipality to advance a way of life of municipal governance that supplements formal representative government with a system of participatory governance. The Municipal System Act (MSA) outlines processes for the encouragement and the creation of an environment for the community to partake in the affairs of the municipality. The community is encouraged to participate in the preparation, implementation, and review of the IDP. Furthermore, community involvement impacts on building the capacity of the community to participate in the affairs of the municipality and council to shape community participation, which in turn should improve service delivery. Section 17 (1) of the MSA encourages community participation must take place through ward committees, councillors and other mechanisms, processes and procedures defined in the Act itself or that have been established by the council.

3. RESEARCH METHODOLOGY

The present study follows a quantitative research approach and utilises a case study design, making use of cross-sectional survey data and used triangulation to validate the data for rigour and reliability. The study instrument was a semi-structured questionnaire, and a stratified sample process was followed to select participants. The collected data were analysed using the Statistical Package for Social Science (SPSS) Version No. 25. This study was conducted at the Ratlou local municipality of the Ngaka Modiri Molema District of the North-West Province in South Africa. The municipality

area has an estimated population of 107 193 people, comprising 105 414 Africans, 750 mixed race, 227 Asians and 802 Europeans (Census 2011). The municipality area is divided into 14 wards with 32 officials involved directly or indirectly in the Integrated Development Planning process (IDPP). The municipality is led by 27 councillors representing the 14 wards (IDP, 2012-2017).

3.1 Research paradigm, approach, and populations

This study is predicated on a positivist paradigm leaning towards an epistemological philosophy and adopted a quantitative research approach (Sekaran and Bougie, 2013). It has a social science connotation and uses the lens of natural science which is supported by positivism (Wayhuni, 2012).

The ideal targeted populations were all stakeholders working for the municipality and members of the community who have participated in the IDPP at least once. The interested population for this study consisted of 27 ward councillors, 20 municipality personnel directly responsible for the IDPP and 10 randomly selected residents of the municipality area. A stratified random sampling process was used because the elements in the population under investigation were not homogeneous. This process allowed for the comparison to be made within a given context as well as describing characteristics of population subgroups. Samples for this study were drawn from senior managers, middle managers, support staff, political appointees, community residence and councillors of the municipality directly involved in the IDPP. Overall, a total of 27 councillors, 20 none elected municipality workers, and 10 community members were randomly selected. Hence, 57 questionnaires were distributed and a response rate of 100% was achieved.

3.2. Data analysis process

Data entry was performed using Microsoft Excel and data cleaning followed immediately after to make corrections and adjustments. Data analysis was performed using the summative approach. The researcher was interested in determining covariate relationships in community involvement in the IDPP. To this end, a study-specific conceptual framework as shown in Figure 1 of this study using known parameters as variables was employed. All the observable barriers contained in the conceptual framework were included in the questionnaire to facilitate analysis using SPSS software.

3.3 Validity and reliability

Cronbach’s alpha test was performed to measure the reliability of the instrument. Results from the test report an overall alpha coefficient of 0.974; this indicates high internal reliability for all scales or subscales (Parson, 2006) used in this study as shown in Table 1 below.

Table 1: The performed reliability test

| Data | Cronbach’s alpha | Items | Comments |
|---|-------------------------|--------------|--------------------------|
| Characteristics of community representatives in the IDPP | 0.825 | 16 | Excellent and consistent |
| Changes due to community involvement in the IDPP since 2002 | 0.916 | 17 | Excellent and consistent |

| Data | Cronbach's alpha | Items | Comments |
|---|------------------|-------|--------------------------|
| Attitudes towards IDPP by community representatives | 0.957 | 30 | Excellent and consistent |
| Level at which communities are involved in the IDPP | 0.897 | 15 | Excellent and consistent |
| The impact of community involvement in the IDPP | 0.946 | 18 | Excellent and consistent |
| Overall scale | 0.974 | 96 | Excellent and consistent |

Source: Researcher's own data

Cronbach's Alpha assesses the reliability of a rating summarizing a group of test or survey answers which measure some underlying factors (e.g., some attribute of the test-taker). A score is computed from each test item and the overall rating called a 'scale' is defined by the sum of these scores over all the test items. When using Likert-type scales it is imperative to calculate and report Cronbach's alpha coefficient for internal consistency and reliability for any scales or subscales (Parson, 2006). In this study, the Cronbach's Alpha results are presented in Table 1. The Cronbach's alpha values for all the sections were above 0.7 indicating that the research instrument was excellent and consistent.

4. RESULTS AND DISCUSSION

Personal characteristics of participants were analysed, and the results were summarised in Table 2. The personal characteristics analysed include gender, age, ethnic grouping, marital status, job status, qualification, and work experience of respondents.

Table 2: Personal characteristics of participants

| Variable | Frequency | Percentage |
|-----------------------|-----------|------------|
| Gender | | |
| Male | 23 | 40.4% |
| Female | 34 | 59.6% |
| Age of groups | | |
| Younger than 25 years | 3 | 5.3% |
| 25-30 years | 7 | 12.3% |
| 31-35 years | 16 | 28.1% |
| 36-40 years | 16 | 28.1% |
| 41-45 years | 9 | 15.1% |
| 46-50 years | 3 | 5.3% |
| Older than 51 years | 3 | 5.3% |
| Ethnic group | | |
| Black | 56 | 100% |
| Marital status | | |
| Single | 28 | 50% |
| Married | 24 | 42.9% |
| Cohabiting | 1 | 1.8% |

| | | |
|--------------------------|----|-------|
| Divorced | 2 | 3.6% |
| Widow/er | 1 | 1.8% |
| Job Status | | |
| Senior management | 2 | 4.3% |
| Middle management | 10 | 21.3 |
| Lower management | 5 | 10.6% |
| Supervisory | 8 | 17% |
| Operational | 22 | 46.8 |
| Highest qualification | | |
| Below matric | 5 | 9.1% |
| Matric | 14 | 25.5% |
| Diploma/certificate | 19 | 34.5% |
| Bachelor's degree | 12 | 21.8% |
| Honour's degree | 5 | |
| Number of years employed | | |
| Less than 5 years | 24 | 45.3% |
| 5-10 years | 20 | 37.7% |
| 11-15 years | 6 | 11.3% |
| 16-20 years | 3 | 5.7% |

Source: Researcher's own data

The purpose of this study was to ascertain the extent to which these characteristics influenced the IDP planning processes. Findings revealed that 59.6% of the respondents were females compared to 40.4% males. The results indicate differential participation in the IDP process as more females are involved in the IDP process compared to male. From the table, 56.2% of all respondents are of age group 31 to 40 years compared to 12.3% and 15.1% respectively for age groups 25 to 30 years and 41-45 years, respectively. The findings show that young adults participate more in the IDP process. All the participants were found to be black Africans and 50% were single and 42.9% were married. This finding is supported by the 2011 census data which found the total population of Ratlou municipality area to be at 107 193 of which 105 414 are Africans, 750 Mixed race, 227 Asians and 802 Europeans.

The implication of these findings is that service delivery plans for the local municipality area priorities young adults, married women's needs more as suggested by the 42.9% marital status. Although 50% of the sample population were single, prioritisation of family needs in the planning process must take precedence over singles since, by extrapolation, they form most residents. Basic services like water, schools, health facilities, recreational facilities, libraries, roads are in high demand. This finding is consistent with the findings of Kehler (2001) who found in a study that black rural women are still facing poverty and have limited access to basic needs. Results from the study also revealed that the majority (46.8%) of respondents who participated in the study from the municipality are at an operational level compared to 21.3% in middle management. Furthermore, the majority (34.5%) of respondents holds a diploma/certificate as their highest level of formal qualification followed by matric certificates (21.3%). The results further revealed that 45.3% of the respondents have been working for less than five years. Educational level and experience are important as formal education

are essential for the understanding and development of the IDP process in municipal areas. The findings are consistent with findings from Sebei (2014) who opined that municipal personnel responsible for the IDPP must have relevant skills to fulfil these objectives.

4.1 Analysis on characteristics of community representatives involved with IDP process

An analysis of the characteristics of community representatives involved with the Integrated Development Planning process in Ratlou municipality area was performed and the results presented in Table 3.

Table 3: Characteristics of community representatives involved with Integrated Development Planning Process

| Statements | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Total |
|---|----------------|---------------|---------------|---------------|-------------------|-------------|
| There are more men than women in my ward | 5 (8.8%) | 9 (15.8%) | 10 (17.5%) | 26 (45.6%) | 7 (12.3%) | 57 (100) |
| There are more women than men in my ward | 5 (8.8%) | 30 (52.6%) | 9 (15.8%) | 11 (19.3%) | 2 (3.5%) | 57 (100) |
| Men attend community meetings more than women | 4 (7.0%) | 10 (17.7%) | 6 (10.5%) | 33 (57%) | 4 (7.0%) | 57 (100) |
| Women attend community meetings than men | 6 (10.5%) | 36 (63.2%) | 8 (14.0%) | 6 (10.5%) | 1 (1.8%) | 57 (100) |
| The youth are represented in the community forums | 5 (8.8%) | 31 (55.4%) | 11 (19.3%) | 9 (15.8) | 1 (1.8%) | 57 (100) |
| Adults are represented in community forums | 1 (1.8%) | 31 (55.4%) | 13 (23.2%) | 11 (19.6%) | 0(0.0%) | 56 (100) |
| Pensioners are also considered during municipal planning i.e. When setting tariffs | 2 (3.5%) | 26 (45.6%) | 12 (21.1%) | 14 (24.6%) | 3 (5.3%) | 57 (100) |
| Officials who are working in the IDP unit of the municipality possesses the relevant qualifications | 3 (5.4%) | 13 (23.2%) | 16 (28.6%) | 23 (41.1%) | 1 (1.8%) | 56 (100) |
| Education is regarded as the most important aspect of life in the municipal area | 4 (7.0%) | 16 (28.1%) | 11 (19.3%) | 20 (35.1%) | 6 (10.5%) | 57 (100) |
| Communities have the basic educational level which enables them to participate on the IDPP | 2 (3.5%) | 19 (33.3%) | 6 (10.5%) | 25 (43.9%) | 5 (8.8%) | 57 (100) |
| Community representative forums are formed by people with at least basic level of education | 3 (5.3%) | 19 (33%) | 11 (19.3%) | 17 (29.8%) | 7 (12.3%) | 57 (100) |
| Communities are familiar with the processes of IDPP | 2 (3.5%) | 17 (29.8%) | 13 (22.8%) | 21 (36.8%) | 4 (7.8%) | 57 (100) |
| Communities have the ability to interpret the reports given to them | 2 (3.6%) | 10 (17.9%) | 14 (25%) | 24 (42%) | 6 (10.7%) | 56 (100) |
| Councillors are elected by communities | 10 (17.5%) | 27 (47.4%) | 2 (3.5%) | 13 (22.8%) | 5 (8.8%) | 57 (100) |
| Community knows the roles of the councillors | 4 (7.0%) | 31 (54.4%) | 7 (12.3%) | 12 (21.1%) | 3 (5.3%) | 57 (100) |
| Communities acknowledge the roles of the councillors | 1 (1.8%) | 15 (26.8%) | 17 (30.4%) | 19 (33.9) | 4 (7.1%) | 56 (100) |

Source: Researcher's own data

From the analysis, 57.9% (45.6% & 12.3%) of the respondents disagreed with the statement that there are more men than women in the wards. The result is consistent with the personal characteristics of respondents and explained the participation of more women in IDP meetings compared to males to reflect the prioritisation of women's needs in IDPs. The majority 64.0% (57.1% & 7.0%) of respondents disagreed that men attend more community meetings as compared to women. The results further found that 64.2% (8.8% & 55.4%) of respondents agreeing that, the youth are represented in community forums, while 57.2% (1.8% & 55.4%) of the respondents agreed that adults are represented in the community forums. The implication is that the needs of the elderly, children and adult generations are considered when developing the IDP. Such a blend of priorities can be very beneficial to the community as the youth is expected to bring innovative ideas to improve service delivery. Furthermore, while youths may be interested in recreational facilities, education, employment opportunities (Although their needs may not differ significantly from the older generation) the older generations are more interested in access to clean water, health facilities, schools, roads and employment opportunities.

The analysis also found that 49.1% (3.5% & 45.6%) of respondents agreed that pensioners are taken into consideration when developing the IDP; however, 42.9% (41.1% & 1.8%) of respondents disagreed that the officials who are working in the IDPP unit of the Ratlou Local municipality have relevant qualifications. The finding is contrary to stipulations in the Municipal Structures Act (1998), which requires the municipal council to appoint a Municipal Manager with relevant skills and qualifications as head of administration who ensures that people with the right skills are appointed and capacitate in the correct field of work. Further analysis found that the majority 45.6 (35.1% & 10.5%) of respondents disagreed with the statement that "education is regarded as the most important aspect of life in the municipal area" as compared to 52.7% (43.9% & 8.8%) of respondents who further disagreed that communities have the basic educational level which enables them to participate fully in the IDP process. This implies that communities may attend meetings, but to actively participate and contribute positively to the IDP process may be a challenge. The analysis also found that 42.1% (29.8% & 12.3%) disagreed that community representative forums are formed by community members with some level of formal basic education while 44.6% (36.8% & 7.8%) also disagreed that community members are familiar with the IDPP of the municipality. A further 52.7% (42.0% & 10.7%) of respondents disagreed with the statement that community members can interpret IDP Reports. This finding by implication is an indication of the ineffectiveness of the IDP Reports in an understandable form for community members to be able to make a positive contribution. These findings are consistent with findings by Mosotho (2013) who in a study emphasised that communities must be aware of the quality and quantity of services that they are expected to receive from the municipalities and are entitled to feedback from municipalities' officials on progress and challenges encountered in the implementation of the plan.

The analysis also found that most respondents agreed with the statement that councillors are elected by communities and the community knows the role of the councillors. However, 41.0% (33.9% & 7.1%) of respondents disagreed with the statement that communities acknowledge the roles of the

councillors even though the election of councillors appears to be consistent with the Municipal Systems Act (2000). This Act requires councillors to be elected by communities and that community members must be aware of the roles of councillors despite the lack of acknowledgement of the roles they play within communities. Hence, communities are aware that councillors are by policy supposed to facilitate the process of basic service delivery and this has resulted in mistrust between councillors and community members. This mistrust between the two main stakeholders in the IDP process increased the likelihood of IDPs being rejected and possible political unrest. This notion is supported by the results of Hedin (2017).

4.2. Analysis of changes in the IDP process due to community involvement

An analysis of changes in the IDPP due to community involvement in the Ratlou municipality area was performed. Statements were formulated relating to changes in the IDPP process due to community involvement since 2002 and the results are presented in Table 4.

Table 4: Changes in the Integrated Development Planning process due to community involvement

| Statements | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Total |
|---|----------------|---------------|---------------|---------------|-------------------|-------------|
| IDPP is linked to the financial resources(budget) | 11 (19.3%) | 24 (42.1%) | 3 (5.3%) | 18 (31.6%) | 1 (1.8%) | 57 (100) |
| Community members are regarded as the decision-makers in the IDPP | 6 (10.5%) | 21 (36.8%) | 10 (17.5%) | 19 (33.3) | 1 (1.8) | 57 (100) |
| IDPP discourages the legacy of apartheid | 8 (14%) | 31 (54.4%) | 11 (19.3%) | 4 (7.0%) | 3 (5.3%) | 57 (100) |
| IDPP strengthens democracy | 9 (15.8%) | 36 (63.2%) | 5 (8.8%) | 5 (8.8%) | 2 (3.5%) | 57 (100) |
| Municipality use Integrated Development plan as their basis of planning | 11 (19.3%) | 39 (68.4%) | 1 (1.8%) | 4 (7.8%) | 2 (3.5%) | 57 (100) |
| IDPP meetings are communicated to community members on time. | 7 (12.3%) | 25 (43.9%) | 5 (8.8%) | 16 (28.1%) | 4 (7.0%) | 57 (100) |
| Meetings are held at a convenient time to accommodate community members | 5 (8.8%) | 19 (33.3%) | 5 (8.8%) | 22 (38.6%) | 6 (10.5%) | 57 (100) |
| Community members are trained on the process involved in the Integrated Development Planning | 1 (1.8%) | 13 (22.8%) | 9 (15.8%) | 26 (45.6%) | 8 (14%) | 57 (100) |
| There are structures and resources in place to encourage community involvement | 2 (3.5%) | 22 (38.6%) | 10 (17.5%) | 20 (35.1%) | 3 (5.3%) | 57 (100) |
| IDPP promote coordination between local, provincial and national government and other stakeholders | 9 (15.8%) | 40 (70.2%) | 3 (5.3%) | 2 (3.5%) | 3 (5.3%) | 57 (100) |
| Stakeholders are aware of their roles during Integrated Development Process | 3 (5.3%) | 23 (40.4%) | 10 (17.5%) | 19 (33.3%) | 2 (3.5%) | 57 (100) |
| Municipality get assistance from National and Provincial Departments when preparing Integrated Development Plan | 3 (5.3%) | 23 (40.4%) | 10 (17.5%) | 19 (33.3%) | 2 (3.5%) | 57 (100) |

| Statements | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Total |
|--|----------------|---------------|--------------|---------------|-------------------|-------------|
| Municipality is able to plan properly and on time when preparing for the IDPP | 8 (14.0%) | 37 (64.9%) | 8 (14.0%) | 4 (7.0%) | 0 (0%) | 57 (100) |
| Budgets are prepared in accordance with the processes set out in the MFMA Act No.56 of 2003 | 15 (26.3%) | 34 (59.6%) | 2 (3.5%) | 6 (10.5%) | 0 (0%) | 57 (100) |
| Municipality take all reasonable steps to ensure that the Integrated Development Plan is revised before tabling the budget | 9 (15.8%) | 33 (57.9%) | 9 (15.8%) | 5 (8.8%) | 1 (1.8%) | 57 (100) |
| Budget of the municipality is informed by the Integrated Development Plan | 11 (19.3%) | 26 (45.6%) | 4 (7.0%) | 14 (24.6%) | 2 (3.5%) | 57 (100) |
| Plans outlined in the Integrated Development Plan are known by community members | 6 (10.5%) | 21 (36.8%) | 9 (15.8%) | 19 (33.3%) | 2 (3.5%) | 57 (100) |
| Plans in the IDP form part of the performance agreement of the municipal officials | 7 (12.3%) | 23 (40.4%) | 9 (15.8%) | 14 (24.6%) | 4 (7.0%) | 57 (100) |

Source: Researcher's own data

Table 4 indicates the changes process in the development of the Integrated Development Plan (IDP) of the Ratlou local municipality as a community involved in the planning process. The results show that 61.4% (19.3% & 42.1%) of respondents agreed that the Integrated Development Planning process is linked to financial resources and 47.3% (10.5% & 36.8%) agreed that community members are regarded as decision-makers in the process. Furthermore, the results revealed, 68.4% (14.0% & 54.4%) of respondents agreed that IDPP discourages the legacy of apartheid, while 79.0% (15.8% & 63.2%) of the respondents agreed that IDPP strengthens democracy.

Furthermore, 87.7% (19.3% and 68.4%) of the respondents agreed that Ratlou local municipality uses the IDP as the basis for planning and 56.2% (12.3% & 43.9%) of all respondents agreed that IDPP meetings are communicated to the community members on time. However, 49.1% (38.6% & 10.5%) of respondents indicated that meetings are not held at a convenient time to accommodate most community members. This analysis shows that some of the interested groups are not able to attend meetings, especially the working class who are at work during meeting times. As a result, some members of the community are excluded in the process and their needs are not incorporated into the plan. Such omissions because of procedural errors in the process might result in the final plan not being accepted by segments within the community, resulting in future service delivery protests.

The results also revealed that 42.1% (3.5% & 38.6%) of respondents agreed that there are structures and resources in place to encourage community involvement, and 86.0% (15.8% & 70.2%) also agreed that the IDPP promotes coordination between the local, provincial, and national government and other stakeholders. The fact that fewer than 50% (42.1%) concurred with the statement that 'structures and resources are in place to encourage community involvement' is a clear indication that the Ratlou local municipality is failing to galvanise most community members to participate in the IDP process. Furthermore, 45.7% (5.3% & 40.4%) of the respondents agreed that stakeholders are aware of their roles during the Integrated Development Process (IDP) while the majority disagreed

that stakeholders are aware of their roles in the IDP process. The same majority agreed that the municipality receives assistance from Provincial and National departments when preparing the integrated development plan.

This finding is in accordance with the Municipal Systems Act (2000) which requires all spheres of government to work together to achieve the common goal of providing quality services to communities. This also emphasised in the Department of Local government IDP guide (2002) which outlines the roles of every stakeholder in the Integrated Development Planning process. Analysis from data further shows that 78.9% (14.0% & 64.9%) of respondents agreed that municipalities are able to plan properly and on time when preparing for the IDPP, 85.9% (26.3% & 59.6%) agreed that the budgets are prepared in accordance with the processes set out in the Municipal Finance Management Act (MFMA) Act No.56 of 2003 and 73.7% (15.8% & 57.9%) indicated that the municipality takes all reasonable steps to ensure that the Integrated Development Plan is revised before tabling the budget. The results also found that 64.9% (19.3% & 45.6%) of respondents agreed that the budget of the municipality is informed by the Integrated Development Plan, while 47.3% (10.5% & 36.8%) agreed that plans outlined in the Integrated Development Plan are known by community members and 52.7% (12.3% & 40.4%) agreed that plans in the IDP form part of the performance agreement of the municipal officials. The fact that fewer than 50% of the respondents agreed that plans outline in the IDP is known to the community is an indication that despite increasing involvement of community members in the IDP processes, the final implementation plan consists of less than 50% of actual needs of the community. Such a distorted plan may be the reason for the persistence in service delivery protests in the Ratlou local municipality area.

4.3 Analyses of levels of community involvement in the Integrated Development Planning Process (IDPP)

An analysis of levels of community involvement in the integrated development planning process was performed. The objective was to ascertain whether the final IDP implemented by Ratlou local municipality involved the community at every stage of the process. The levels of community involvement were segregated into four stages, namely: analysis stage, strategic stage, project stage and integration stage. The results related to the level of community involvement based on the statements are presented in Table 5.

Table 1: Levels of community involvement by stage in the Integrated Development Planning Process (IDPP)

| Statements | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Total |
|---|----------------|---------------|---------------|---------------|-------------------|-------------|
| Analysis stage | | | | | | |
| Communities are involved in all the stages of the IDPP | 5 (8.9%) | 16 (28.6%) | 17 (12.5%) | 25 (44.6%) | 3 (5.4%) | 56 (100) |
| Communities are involved in the development and identification of priority issues or problems in the IDPP | 5 (8.8%) | 36 (63.2%) | 5 (8.8%) | 11 (19.3%) | 0 (0.0%) | 57 (100) |

| Statements | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Total |
|--|----------------|---------------|---------------|---------------|-------------------|-------------|
| Communities are involved in the IDP review process by the Department of Local Government and Human Settlement and District Municipality | 3 (5.3%) | 16 (28.1%) | 10 (17.5%) | 25 (43.9%) | 3 (5.3%) | 57 (100) |
| Community are involved in the advertisement and approved IDP process in newspapers, and websites, among others | 5 (8.9%) | 10 (17.5%) | 13 (23.2%) | 25 (44.6%) | 3 (5.4%) | 56 (100) |
| Strategic stage | | | | | | |
| Communities are involved in the formulation or review of vision and vision strategies | 1 (1.8%) | 14 (24.6%) | 13 (22.8%) | 24 (42.1%) | 5 (8.8%) | 57 (100) |
| Communities are involved in the review of objectives and conditions for public debate on alternatives | 4 (7.1%) | 13 (23.2%) | 11 (19.6%) | 22 (39.3%) | 6 (10.7%) | 56 (100) |
| Communities are involved in examining local development strategic guidelines | 2 (3.8%) | 5 (9.6%) | 10 (19.2%) | 31 (59.6%) | 4 (7.7%) | 52 (100) |
| Project Stage | | | | | | |
| Community are involved In setting out performance indicators, project outputs, targets, location, perform costing and budget estimates | 2 (3.5%) | 16 (28.1%) | 7 (12.3%) | 25 (43.9%) | 7 (12.3%) | 57 (100) |
| Communities are involved in the IDP steering committee compilation of project proposals (Indicators, outputs, target, responsibilities and budget) | 1 (1.8%) | 12 (21.1%) | 13 (22.8%) | 28 (49.1%) | 3 (5.3%) | 57 (100) |
| Communities are involved in the compilation of the final technical project decisions with the involvement of all sector departments | 1 (1.8%) | 6 (10.5%) | 14 (24.6%) | 32 (56.1%) | 4 (7.0%) | 57 (100) |
| Integration stage | | | | | | |
| Communities are involved in the compilation of the 5-year financial plan which include plans from other stakeholders | 5 (8.8%) | 17 (29.8%) | 9 (15.8%) | 23 (40.4%) | 3 (5.3%) | 57 (100) |
| Communities are involved in the incorporation of sector plans or programmes | 3 (5.3%) | 12 (21.1%) | 8 (14.0%) | 29 (50.9%) | 5 (8.8%) | 57 (100) |
| Communities are involved in the IDP representative forum in conducting meetings to review the draft IDP document | 4 (7.0%) | 23 (40.4%) | 12 (21.1%) | 15 (26.3%) | 3 (5.3%) | 57 (100) |
| Communities are involved on decision to invite comments from the Public, Provincial and National Government | 4 (7.0%) | 12 (21.1%) | 10 (17.5%) | 28 (49.1%) | 3 (5.3%) | 57 (100) |
| Communities are involved in the adoption by municipal council the IDP | 5 (8.8%) | 32 (56.1%) | 10 (17.5%) | 6 (10.5%) | 4 (7.0%) | 57 (100) |

Source: Researcher's own data

From table 5 it can be deduced that 50.0% (44.6% & 5.4%) of respondents disagreed that community members are involved in all the stages of the IDP process. But 72.0% (8.8% & 63.2%) of respondents agreed that communities are involved in the development and identification of priority issues or problems in the IDPP. While 49.2% (43.9% & 5.3%) of the respondents disagreed that communities are involved in the IDP review process by the Department of Local Government and Human

Settlement and District Municipality. Lastly, 50.0% (44.6% & 5.4%) of respondents disagreed that communities are involved in the advertisement and approved IDPP in newspapers, websites and the like. Sisto *et al.* (2018) found a similar approach adopted by the European system, whereby an assessment was conducted to show the relevance of the participatory approach. It was revealed that participating in decision-making by local people does not only assist in identifying the needs but improves stakeholders' confidence in the decision-making process and gives clear direction as to how to satisfy their needs. Furthermore, the Municipal Systems Act (2000) emphasises that there must be communication between the community and municipality. All information relating to service delivery must be made public and the municipality must ensure that it is in an official language determined by Council. This is to ensure that stakeholders can make meaningful contributions.

4.4 Strategic stage

The presented analysis revealed that the majority of 50.9% (42.1% & 8.8%) of respondents disagreed that communities are involved in the formulation or review of vision and vision strategies. The analysis also revealed that 50.0% (39.3% & 10.7%) of respondents disagreed that the community is involved in the review of objectives and conditions for public debate on alternatives, and 67.3% (59.6% & 7.7%) of respondents disagreed that communities are involved in examining local development strategic guidelines. This is not consistent with the requirement in Municipal Systems Act (2000) that communities must be consulted when compiling the Integrated Development Plan to assist in identifying their priorities. It is also contrary to findings by Van Niekerk (2014) who emphasises that during the strategic phase, communities must be consulted through public debates to assist the organisation to overcome service delivery challenges.

4.5 Project stage

The showed analysis presented in Table 4.5 revealed that a majority 56.2% (43.9% & 12.3%) of respondents disagreed that communities are involved in setting out performance indicators, project outputs, targets, location, perform costing and budget estimates. The results also revealed that 54.4% (49.1% & 5.3%) of respondents disagreed that communities are involved in the IDP steering committee compilation of project proposals (indicators, outputs, target, responsibilities and budget), and 63.1% (56.1% & 7.1%) of respondents disagreed that communities are involved in the compilation of the final technical project decisions with the involvement of all sector departments. The National Treasury's Municipal Budget and Reporting Regulations (2009) states that the mayor of the municipality must form a budget steering committee which must comprise of all stakeholders including community representatives. Involving all stakeholders will ensure that they can assess municipal performance easily and constructively.

4.6 Integration stage

The indicated analysis revealed that the majority, 45.7% (40.4% & 5.3%), of respondents disagreed that communities are involved in the compilation of the five-year financial plan which includes plans from other stakeholders. The results also revealed that 59.7% (50.9% & 8.8%) of respondents disagreed that communities are involved in the incorporation of sector plans or programmes. However, 47.4% (7.0% & 40.4%) of respondents agreed that communities are involved in the IDP

representative forum when conducting meetings to review the draft IDP document. The results further revealed that 54.4% (49.1% & 5.3%) of respondents disagreed that communities are involved in decisions to invite comments from the Public, Provincial and National Government and, lastly, 64.9% (8.8% & 56.1%) of respondents agreed that communities are involved in the adoption by the municipal council of the IDP. These findings are not consistent with the Ratlou local municipality's Integrated Development Planning Process Reports (2012) which shows that community consultation was conducted and that it was led by the mayor, speaker, and the accounting officer of the municipality. Van Niekerk (2014) in a study also found that responsible officials must, on an annual basis, give feedback to community members on the status-quo of the implementation of service delivery plans.

4.7. Impact analysis of community involvement in the IDPP on service delivery

This section of the study presents the results related to the impact of community involvement in the IDPP on service delivery and the results are presented in Table 4.6.

Table 6: The impact of community involvement in the Integrated Development Planning Process (IDPP) on service delivery

| Statements | Very high | High | Average | Low | Very low | Total |
|---|-------------|---------------|---------------|---------------|--------------|-------------|
| Coordinated support from other spheres of government improves service delivery | 3 (5.5%) | 19 (34.5%) | 26 (47.3%) | 7 (12.7%) | 0 (0.0%) | 55 (100) |
| The Integrated Development Plan process ensures service delivery is impacted upon | 3 (5.5%) | 17 (30.9%) | 25 (45.5%) | 8 (14.5%) | 2 (3.6%) | 55 (100) |
| The Integrated Development Plan process ensures alignment in planning and budgeting | 2 (3.6%) | 22 (40%) | 25 (45.5%) | 3 (5.5%) | 3 (5.5%) | 55 (100) |
| The impact of resources used effectively as a result of the Integrated Development Planning process is sound | 4 (7.3%) | 17 (30.9%) | 25 (45.5%) | 7 (12.7%) | 2 (3.6%) | 55 (100) |
| The Integrated Development Planning process speeds up service delivery | 3 (5.5%) | 15 (27.3%) | 24 (43.6%) | 10 (18.2%) | 3 (5.5%) | 55 (100) |
| The Integrated Development Process assists in attracting investors | 0(0.0%) | 18 (32.7%) | 10 (18.2%) | 20 (36.4%) | 7 (12.7%) | 55 (100) |
| Basic service delivery is the main driver of the Integrated Development Planning process | 2 (3.6%) | 18 (32.7%) | 17 (30.9%) | 17 (30.9%) | 1 (1.8%) | 55 (100) |
| Community involvement has impacted on the challenges experienced by the municipality when doing their Integrated Development Planning | 2 (3.6%) | 15 (27.3%) | 18 (32.7%) | 17 (30.9%) | 3 (5.5%) | 55 (100) |
| The Integrated Development Plan impacts on the needs of all community members | 3 (5.6%) | 13 (24.1%) | 16 (29.6%) | 17 (31.5%) | 5 (9.3%) | 54 (100) |
| Community members are actively involved in the Integrated Development Plan | 2 (3.6%) | 12 (21.8%) | 19 (34.5%) | 19 (34.5%) | 3 (5.5%) | 55 (100) |
| Access to free basic services in the municipal area has improved as a result of Integration Development Plan process | 3 (5.5%) | 11 (20.0%) | 17 (30.9%) | 20 (36.4%) | 4 (7.3%) | 55 (100) |

| Statements | Very high | High | Average | Low | Very low | Total |
|--|-------------|---------------|---------------|---------------|---------------|-------------|
| Municipal infrastructure has impacted on the provision of the required services to the community | 2 (3.6%) | 11 (20.0%) | 9 (16.4%) | 9 (16.4%) | 24 (43.6%) | 55 (100) |
| The municipality has the ability to sustain itself should it be faced with financial challenges. | 0 (0.0%) | 17 (30.9%) | 18 (32.7%) | 8 (14.5%) | 12 (21.8%) | 55 (100) |
| The municipality is able to reach its clients i.e. community on time | 1 (1.8%) | 14 (25.5%) | 15 (27.3%) | 15 (27.3%) | 10 (18.2%) | 55 (100) |
| The municipality has the ability to increase its revenue base in the future | 2 (3.6%) | 11 (20.0%) | 20 (36.4%) | 16 (29.1%) | 6 (10.9%) | 55 (100) |

Source: Researcher's own data

The results presented in Table 6 reveal that 40.0% (5.5% & 34.5%) indicated that there is coordinated support from other spheres of government to improve service delivery, with 45.5% of respondents indicating that the Integrated Development Plan process averagely ensures that service delivery is impacted upon. Then, 45.5% of respondents indicated that the IDPP averagely ensures alignment in planning and budgeting. In terms of Section 40 of the Constitution (1996), cooperative government principles must be observed by all spheres of government, to fully support each other in providing service to the community. Section 18 of the Municipal Financial Management Act (MFMA, 2003) also alludes to the fact that the budget projections of the municipality must be aligned to the plans that are put into place.

Moreover, 45.5% of the respondents indicated that on average the impact of resources is used effectively because of the IDDP, while 43.6% of the respondents indicated that the IDPP averagely speeds up service delivery and 49.1% (36.4% & 12.7%) of respondents indicated that the Integrated Development Process has a low impact in assisting in attracting investors. The results revealed that 36.3% (3.6% & 32.7%) of respondents feel that basic service delivery is the main driver of the Integrated Development Planning; however, 36.4% (30.9% & 5.5%) of respondents indicated that community involvement has a low impact on the challenges experienced by the Municipality when doing their IDPs.

In addition, 40.8% (31.5% & 9.3%) of respondents indicated that the Integrated Development Plan has a low impact on the needs of all community members, while 40.0% (34.5% & 5.5%) of respondents indicated that community members are less actively involved in the Integrated Development Plan and 43.7% (36.4% & 7.3%) of respondents indicated that access to free basic services in the municipal area has a low impact because of the IDPP. This finding echoes findings from a study conducted by Atinga *et al.* (2018) found that commitment and participation by community members in the IDPP process in Ghana are low due to the perception that the process is government owned. Also, poverty caused poor participation due to a lack of resources. Ahmadi (2017) in a study also found that despite community involvement strategies put in place to improve

service delivery, their impact continued to be inadequate, and this is due to challenges such as poverty, racism, lack of funding and the like.

The results in Table 4.6 reveal that 60.0% (16.4% & 43.6%) of respondents indicated that municipal infrastructure has a low impact on the provision of required services to the community, and 36.3% (14.5% & 21.8%) of respondents indicated that municipality cannot sustain itself should it be faced with financial challenges. Lastly, 45.5% (27.3% & 18.2%) of respondents indicated that the municipality is unable to reach its clients, i.e. the community, on time and 40.0% (29.1% & 10.9%) of respondents indicated that municipal has little ability to increase its revenue base in the future.

5. Conclusion, recommendations and future research

The study has revealed that most of the community members and their representatives do not have the necessary skills that them to actively participate in the IDPP. They are not familiar with the process of IDP. Councillors are nominated to represent communities in the municipal council; however, they are not acknowledged, and this negatively impact on service delivery. The process is surrounded by challenges that seem to be associated with inadequate processes to actively involve communities, and as a result, this gives rise to increasing numbers of service delivery protests.

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BEHAVIOUR FAILURES AND ENERGY-EFFICIENT CHOICES IN THE RESIDENTIAL SECTOR: EVIDENCE FROM MALAWI AND SOUTH AFRICA

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ABSTRACT

The threat of global climate change, low access to clean energy and recurring energy deficits have emerged as driving factors to promote energy efficiency in Southern Africa Development Community (SADC) region. Despite strides made in developing energy-efficient technologies for lighting, room heating and cooling (RHC), water heating (WH), and refrigeration, the level of adoption of these technologies in the region is still low. While energy policies are making strides addressing market failures that influence households' decisions to use energy-efficient appliances, they often ignore the influence of behaviour failures. This study set out to determine the impact of selected behaviour failures on households' choices to use various energy-efficient appliances. The study constructs five behaviour failure indexes, namely Certainty-Effect (CEI), Heuristics (RHI), Status Quo (SQI), Brand Loyalty (BLI), and Impulsive Buying (IBI), which are used in choice models for lighting, water heating (WH), room cooling and heating (RHC), and refrigeration. Logit models were estimated using data collected from Blantyre City (Malawi) and Ngaka Modiri Molema District (South Africa) using a survey questionnaire administered to 993 randomly sampled households to determine the effect of the behaviour failures on household's choices. The results show that behaviour failures inconsistently influence the households' choice to use energy-efficient appliances. Specifically, SQI reduces the probability of using energy-efficient refrigeration and lighting for the combined samples from Malawi and South Africa. In contrast, IBI increased the probability of using energy-efficient bulbs while reducing the probability of investing in RCH. In contrast, the Malawian sample shows that SQI reduces the probability of using refrigerators and lighting bulbs. BLI increases the probability of using energy-efficient bulbs while reducing the use of energy-efficient RHC and IBI increases the probability of using efficient bulbs and RHC. In contrast, the South African sample shows that only impulsive buying increases the probability of using energy-efficient refrigerators. Among the control variables, own-price, motivation to buy appliances, and information provision policy increased the probability of using energy-efficient appliances. The study recommends that energy efficiency policy consider the influence of behaviour failure in designing policies, especially in Malawi. Further studies in the SADC region can demystify the influence of behaviour failure on household behaviour.

Keywords: Energy-efficient, household choice, behaviour failure, public policy.

1. INTRODUCTION

The threat of global climate change, low access to clean energy and recurring energy deficits have emerged in the last three decades as the driving factors promoting energy efficiency in Southern Africa Development Community (SADC) region (SADC & SARDC, 2018). Globally, climate change has induced weather events that have had adverse effects on people's socio-economic well-being. Specifically, some countries have increasingly experienced heat waves that have claimed lives (Parente et al., 2018; Trancoso et al., 2020); increased occurrences of drought and water shortages (Orimoloye et al., 2021); and witnessed increased growth of pathogens and disease-carrying insects such as mosquitos (Scheday et al., 2019). Similarly, the polar regions have experienced melting of glaciers and ice (Javadinejad et al., 2020; Lindsey, 2018); increasing seawater levels in the oceans that are swallowing low-lying oceanic islands (Bosello & De Cian, 2014; Shannon et al., 2019); and resulted in poor food and agricultural productivity especially in Europe, Southern Africa and Australia (Ray et al., 2019). The chief culprit in the release of anthropogenic greenhouse gases (GHGs) is energy production which contributes 68% of GHGs (International Energy Agency, 2017a).

Efforts to curtail energy production and use through energy conservation, switching to more renewable energy, and the use of energy-efficient technologies have a greater potential of reducing the rate of GHGs accumulation in the atmosphere (International Energy Agency, 2017b). Energy conservation refers to the reduction in the use of different forms of energy, including electricity, with the view of curtailing the effects on the environment. In contrast, energy efficiency refers to generating the same energy services using less energy in Kilowatts hours (Jaffe et al., 2004). While energy conservation can reduce GHGs, the downside is that it reduces energy services people enjoy. In contrast, energy efficiency potentially reduces energy demand without necessarily reducing the energy services. The last two decades have witnessed advances in energy-efficient technologies in appliances and fittings commonly used at home (Bansal et al., 2011; Pattison et al., 2018; TeGrotenhuis et al., 2017). Various appliances used in the residential sector, such as lighting, home cooling and heating, water heating, and refrigeration, have improved, with consumers enjoying more energy services per unit of energy. For instance, light-emitting diode (LED) consumes 80 to 90 percent less energy than incandescent bulbs and longer lifespan (Gayral, 2017; Montoya et al., 2017). Similarly, switching from the old refrigerator to energy-efficient refrigerators potentially reduce annual energy consumption ranging between 30 to 80 percent (Clean Energy Resources Team, 2021; Harrington et al., 2018) These products are penetrating the SADC region through trade with countries that enforce energy efficiency standards and technologies as well through devising and enforcing energy-efficient policies or strategies within member states as it has been done in Botswana, Eswatini, Mauritius, South Africa and Tanzania (SADC & SARDC, 2018).

Although the availability of energy-efficient appliances is necessary, it is not a sufficient condition to achieve a wider diffusion of such technologies. Evidence suggests that despite such technologies being available on the market, there is low penetration of the energy-efficient appliances in the SADC region, including both South Africa and Malawi (Copenhagen Centre for Energy Efficiency, 2019; REN21, 2018). The low penetration of energy efficiency creates an energy-efficient gap that needs closing through an active public policy. Cattaneo (2019) argues that a wider diffusion of energy

efficiency depends, to a certain extent, on the behaviour choices of the end-users such as households. Further, Davoudi et al. (2014) observe that psychological disposition and social perceptions equally influence pro-environmental attitudes. However, these factors do not feature prominently in policies aimed at promoting pro-environmentalist behaviour. Evidence suggests that the energy efficiency policy pays disproportionately more attention to market failure than perceptions and attitudes, social influences, and pro-environmentalist attitudes (Gillingham et al., 2018; Gillingham & Palmer, 2014).

In the SADC region, South Africa is the major generator of electricity with a capacity of more than 45 Gigawatts (GW) but at the same time stand-out as the major polluter given that 90% of her electricity is produced using coal (Pienaar et al., 2020; SADC & SARDC, 2018). Although the country is driven to reduce its reliance on coal-generated power, the full switch to greener energy sources is likely to take relatively longer given the required investments (Government of South Africa, 2019). In contrast, Malawi produces less than 450 megawatts of electricity through hydroelectric power. However, both countries are facing tremendous growth in demand for energy relative to supply which has contributed to episodes of blackout and power rationing in both countries.

It is thus imperative to interrogate the extent to which behaviour failures influence individuals' decision to use energy-efficient appliances and explore how policy can positively influence behaviour change to be energy efficient. This study, therefore, develops choice models that include psychometric indexes that measure the extent to which behaviour anomalies such as *certainty-effect*, use of *heuristics*, *brand loyalty*, *status quo bias* and *impulsive buying* behaviour affect the household decision to invest in energy-efficient appliances while controlling for other factors. It focuses on four appliances used for refrigerating, room heating and cooling, lighting, and water heating. Furthermore, this study attempts to assess if countries that have an active energy-efficient policy and those that do not have such would realise different attitudes towards using energy-efficient technologies at the household level. The next section of this paper review the literature on the subject, followed by a description of the study methodology in section 3. Section 4 present and discuss the results while the last section provides study conclusion and recommendation.

2. LITERATURE REVIEW

This section reviews the theoretical and empirical literature on individual choice behaviour, drawing more insights from the traditional neoclassical choice theory and the criticism levelled largely by behaviour economists.

Rationality, Choices and Energy Efficiency

Investing in energy efficiency is a risky prospect. Its outcomes are uncertain since they are realised in the future. Kahneman and Tversky (2013) considered risky choices as choices made without knowing the consequences in advance. The Expected Utility Theory (EUT) has been the dominant theoretical framework for analysing risky choices and decisions under uncertainty (Schoemaker, 1982). This theory considers individuals as rational beings that use intelligently all available information to maximize their utility. When presented with rankable options, the behaviour of such rational individuals is governed by a set of axioms or principles that renders rational choice theory

both a normative and a descriptive model of human behaviour (Kontek, 2012; Von Neumann & Morgenstern, 1953). These axioms of completeness of preference, transitivity, dominance, descriptive invariance, and axiom independence (substitution).

The axiom of completeness states that the preferences are well defined. An individual prefers one to the other or is indifferent. At the same time, transitivity requires that if A is preferred to B and B preferred to C , then it should be the case that A is preferred to C (Mas-Colell et al., 2018; Nicholson & Snyder, 2016). The axiom of dominance states that if option A has all elements of option B plus one additional element, then A is dominant to B . A will be more preferred to B , implying that more is better than less. Finally, descriptive invariance postulates that framing of choices should not affect individuals' final choices. At the same time, the axiom of independence implies that decisions that involve two options ignore the common components or consequences (Holt, 1986). Based on these axioms, individuals choices are expected to be stable and consistent irrespective of the choice set, change in space and/or time, or framing of the options.

The rational choice theory argues that understanding the cognitive processes prior to a decision or choice is irrelevant as the final choice reflects the utility derived and value attached relative to alternative options forgone. Consequently, observing individuals choices and preference relations provide more information about the utility and the mental processes involved. Consistent with this persuasion, neoclassical economists argue that economic agents behave rationally and that their behaviour aligns with the social welfare function (Andrews, 2017; Fleurbaey, 2018). Deviations from rational economic behaviour are observed only when different forms of market failures are introduced on the market. These market failures distort the competitive market processes, generating suboptimal outcomes such as choosing less energy-efficient options when more energy-efficient options are available.

Gillingham et al. (2009), Gillingham and Palmer (2014), Gerarden et al. (2017) and Cattaneo (2019) isolate some of the key market failures that affect energy efficiency and the energy market. First, prices may not reflect the true cost of providing energy services due to the use of average pricing rather than marginal cost, subsidies or price controls (Borenstein & Bushnell, 2018; Mamounakis et al., 2018). Secondly, environmental externalities such as pollution due to the use of private rather than social marginal cost. Thirdly, the failure of the market to provide credits for energy-efficient appliances or retrofitting old houses. Fourthly, innovation is a source of market failure through knowledge and learning-by-doing spillovers. Consequently, policy interventions have been devised to attenuate the impact of market failures. These include real-time pricing, introducing emission taxes and financing programmes, public funding of research activities, providing incentives for early adopters, provision of information and education programmes, and using product standards and labelling (Gillingham et al., 2009).

Despite EUT being the bedrock of much economic analysis and accompanying policies, it is beset with some problems, as Kontek (2012) observed. First, failure to explain why the same individual can simultaneously be a risk-taker and risk-averse, for example, buying lottery tickets and insurances simultaneously. Secondly, the failure of lottery experiments to yield consistent or unique outcomes when different probabilities are used in the experiments. Thirdly, the axiom of completeness is

deemed to be too demanding as it suppresses cases where independent attributes are non-comparable (Galaabaatar & Karni, 2012). Alternative models have been suggested to accommodate various weaknesses of the EUT to maintain the vitality of rationality assumption, such as Markowitz (1952) S-shaped utility curve, *utility theory without completeness axiom* to accommodate different instances where attributes of alternatives are non-comparable (Aumann, 1962; Dubra et al., 2004; Galaabaatar & Karni, 2012; Naga & Papi, 2019).

Behaviour Failure, Choices and Energy Efficiency

In addition to the problems cited above, studies have pointed out a plethora of behaviour anomalies that are inconsistent with axioms of rationality, which are collectively called *behaviour failures* (Ainslie, 2016; Cattaneo, 2019; Kahneman et al., 1991; Kahneman & Tversky, 1979; Shogren & Taylor, 2008). These are a collection of behaviours that deviate from the prescription of rationality axiom that results in inconsistent and non-stable preferences different from those that clear the market. Using a set of experiments, referred to as the *Allais Paradox*, Allais and Hagen (1979), as reviewed by Mongin (2018), demonstrated that individual preferences are not consistent and independent of the options given, rendering the choices unpredictable contrary to the argument advanced by Von Neumann and Morgenstern (1953). Specifically, the experiments illustrate that individuals prefer certain outcomes to probable outcomes, a tendency referred to as *certainty-effect*. For instance, the cost of the energy-efficient appliance is certain and more salient in purchase decisions, unlike future energy savings and prices which are future realizations hence less prominent in the appliance buying decision. Alberini et al. (2013) has shown empirically that respondents who are uncertain of the future energy prices are more likely to choose the status quo option (no energy-efficient renovations) and attach a higher weight to the investment cost than the financial gains.

Kahneman and Tversky (1979) used similar experiments to make two additional significant observations. First, certainty-effect contributes to *risk-aversion* in choices that involve certain gains while generating risk-seeking behaviour in choices involving certain losses. Loss aversion also manifests in different forms, as discussed by Ainslie (2016). The first manifestation is through *endowment-effect* or tendency of individuals to attach a higher value to items in their possession than the same item not yet in their possession. It may also manifest as a *gain/loss asymmetry* or the tendency to attach a higher value to loss relative to the same potential gain.

An empirical study undertaken by He et al. (2019) found that more loss-averse farmers are likely to use energy-efficient appliances while risk-averse farmers are less likely to do likewise. Likewise, Qiu et al. (2014) found that adopting energy-efficient technologies is less probable among more risk-averse individuals. Secondly, framing options as either a gain or a loss generates different choices from the individuals, a phenomenon otherwise called the *framing-effect* which was later expounded in Tversky and Kahneman (1981) and Kahneman and Tversky (1986). This violates the description invariance axiom of EUT such that framing options or attributes differently result in the reversal of preferences. The marketing implication is that presenting certain product features negatively result in consumers making a different buying decisions unlike presenting the same features positively.

Earlier, Simon (1956) argued that, due to cognitive limitations, individuals ignore certain information while making decisions, a concept commonly referred to as *bounded rationality*. Unlike rational

economic man, rationally bounded individuals selectively pick and use information due to either the high transactional cost of getting the information, the complexity of the problem or mere inability to cognitively process the information. Other mechanisms are often sought to hasten the decision-making process. Among them include the use of heuristics and options that individuals are already familiar with. In the context of energy efficiency, the latter may involve the recourse to the status quo or brand loyalty.

Heuristics are decision cues or shortcuts that assist individuals in approximating their best option without sufficiently assessing the entire information set. Although Gigerenzer and Gaissmaier (2011) argue that individuals' recourse to use of heuristics is an efficient cognitive process, this tendency has been shown to yield biased choices or suboptimal decisions (Conlisk, 1996). However, Gigerenzer and Gaissmaier (2011) insist that heuristics can be more accurate than complex strategies and help individuals exploit the core capacities of the brain and afford individuals to select proper heuristics given sufficient experience in an uncertain world.

The *status quo bias* is the tendency of individuals to maintain the current option when new and probably better options present themselves (Barreiro-Hurle et al., 2018; Samuelson & Zeckhauser, 1988). Kahneman et al. (1991) argued that one implication of loss aversion is individuals' strong inclination towards the status quo. Durables are prone to this tendency as individuals opt to keep them in their possession until they wear off (Blasch & Daminato, 2018). Status quo preference obtains when individuals purchase previously owned appliances despite that new and better appliances are available on the market. In addition, it may also obtain by doing nothing as a default option when better appliances are available on the market. The bias created by such tendencies reduce the market viability of new and energy-efficient technologies and eventually reduce their diffusion.

While cognitive limitations may play a part, other factors may explain the status quo as the preferred choice. First, the individual exhibits perfect rational behaviour as the other option derives less utility to the individual (Barreiro-Hurle et al., 2018). Secondly, the individual is rationalizing in the face of uncertainty or is avoiding taking the risk (Samuelson & Zeckhauser, 1988). Thirdly, individuals prefer the status quo for fear of regret and consequences associated with bad outcomes (Ainslie, 2016). Fourthly, although considered a separate irrational behaviour, the status quo is retained because of the endowment effect. The endowment effect make individuals value more what they already own than similar but better items with superior attributes available on the market (Ainslie, 2016). Finally, the individual may choose the status quo because the decision to change is somewhat complex, which can be linked to bounded rationality as earlier discussed, or an individual's attempt to economize due to attendant transactional costs. Contrary to all these justifications, Blasch and Daminato (2018) found that households that keep appliances longer due to status quo bias consume 5.7% more electricity than non-status-quo-biased households.

Whereas Gigerenzer and Gaissmaier (2011) suggest that heuristics are commonly used when individuals are bounded rationally, other studies indicate that individuals buy based on brand loyalty. Brand loyalty occurs when an individual prefers to buy their established brand, which they have come to love irrespective of other options being introduced on the market, better or otherwise. Individuals are forced to buy less energy-efficient appliances due to their loyalty to a particular brand. Such

loyalty may arise due to associating the brand with quality based on past purchase (Alhaddad, 2015), customer satisfaction, perceived value, and trust (Shirin & Puth, 2011). However, it may also arise due to mere attachment after long use of the product (Li et al., 2020) or sheer bias against other brands. Studies have shown that brand loyalty may also increase with an individual's age, income levels, and lack of adventures among the users. Further, the introduction of new varied products creates complexities for individuals to compare and contrast various products. Hence, individuals' recourse to use brand loyalty to aid decision making.

Finally, lack of self-control, more commonly manifested in impulsive buying behaviour, is another anomaly that generates suboptimal outcomes. Impulsive buying is considered as a "sudden, often powerful and persistent urge to buy something immediately" Rook (1987) as cited by Sultan et al. (2012). It reflects a lack of patience and effort to engage in the thought process of weighing the pros and cons of the buying decision. In contrast, self-control involves the ability to defy strong urges and emotions to act in a certain manner, in this case containing the urge to buy (Sultan et al., 2012). Individuals who indulge in impulse buying do not consider the consequences of the buying decision. Such behaviour can generate suboptimal outcomes as individuals opt to buy due to emotional needs without proper thinking. Atulkar and Kesari (2018) found that tendency to enjoy shopping, materialism, motivational activities by retailers and product attributes generate more impulsive buying. Feeling of loneliness (Arda & Andriany, 2019), mood and time pressure as well as usability of packaging (Bahrainizad & Rajabi, 2018), and information overload (Hausman, 2000) can stimulate impulsive buying. Dharshing and Hille (2017) found that impulsive homeowners attach a higher weight to future energy cost-saving hence more likely to invest in energy-efficient appliances. However, their study also indicated that such individuals are more prone to energy cost framing effects.

Social Perspectives, Individual Choices and Energy Efficiency

The decision to invest in energy efficiency or the drive to preserve the environment is influenced by human social interactions. Pothitou et al. (2016) has observed that personal choices are influenced by various social structure created within the social environment one operates. Such social structures create an expected behaviour to which many conform, otherwise called norms, values systems or beliefs. These social structures play a significant role in habit formation or shaping behaviour. Further, Davoudi et al. (2014) isolate three types of social pressures. First, there is coercive social pressure such as laws, rules and regulations, which defines accepted behaviours and penalties for delinquency. Secondly, there are mimic social pressure that compels individuals to follow the behaviour of others to simplify complex decisions such as peer pressure. Finally, are pressures generated due to the values held and attempts to avoid social censures. Other social push factors include the need to belong to or be identified with a group and the need to project some image (Farrow et al., 2017). In the case of energy efficiency, individuals may invest in energy-efficient in response to any pressures. However, we assume the decision-makers in this study learns from friends or neighbours.

3. METHODOLOGY

Research Design

Since this study aimed to establish the causal relationship between behaviour failures and household choice in using energy-efficient appliances, a deductive approach and survey method was used to respond to the major issues being interrogated by this study. While drawing a big picture from the combined data from Malawi and South Africa, a comparative analysis is further done to differentiate the impacts of behaviour failures when countries pursue different policies.

Sampling Method

Households connected to the electricity grid from Blantyre City in Malawi and Ngaka Modiri Molema District of Northwest Province in South Africa were the targeted unit of analysis. South Africa was chosen because it represents countries in the region that are first movers in establishing energy-efficiency strategy/policy, while Malawi is a laggard as it does not have a coherent energy-efficiency policy or strategy. Blantyre City has an estimated 158 782 households (National Statistics Office, 2017), while Ngaka Modiri Molema District has an estimated 269 977 households (Yes Media, 2018). Using the sample size determination tables developed by Krejcie and Morgan (1970), the minimum acceptable sample size for both target areas was 382. The sampling process followed a two-stage stratified random sampling procedure. First, the wards were designated as the primary enumeration area, and these were considered as a stratum. Secondly, within each stratum, participating households were identified by first choosing randomly the first house and the subsequently count and choose the next fifth house. Households that declined to participate in the survey or owners were not available were replaced with the next household. Table 1 below provides a summary of the sampled household response rates.

Table 1: Summary of Sampled Households

| Sample | Households Visited | Usable Sample | Response Rate |
|------------------------------|--------------------|---------------|---------------|
| Blantyre City | 606 | 544 | 89.3% |
| Ngaka Modiri Molema District | 401 | 389 | 97% |
| Total Sample | 1007 | 933 | 92.7 |

Source: Calculated by the authors.

Research Instrument and Data Collection

The data collection process used a structured questionnaire administered face-to-face to household heads or their representatives by well-trained enumerators from May to November 2019. Among other items, the questionnaire solicited information on household characteristics such as household head monthly income, income contribution of other household members, education attainment, house ownership, and household size, as presented in Table 2 below. Additional information was solicited on the number of other electric appliances owned by households, energy-efficient labelling, purchase prices of appliances, the motivation for buying the appliances, the channel and frequency they receive energy-efficient messages, and how their neighbours influenced the decision to invest in energy-

efficient appliances. The prices and incomes for Malawian households were converted to South African Rand using the average exchange rate of MK50 to R1.

Table 2: Summary of Descriptive Statistics for the Independent Variables

| Variable | Combined | | Malawi | | South Africa | |
|--|----------|---------|---------|---------|--------------|---------|
| | Mean | Std Dev | Mean | Std Dev | Mean | Std Dev |
| Monthly Electricity Bill (E-Bill) | 298.06 | 192.14 | 207.71 | 150.42 | 424.42 | 171.92 |
| Price Refrigerator | 3551.84 | 3707.38 | 2434.10 | 2828.98 | 5114.96 | 4196.50 |
| Price Bulb | 20.30 | 19.44 | 11.83 | 10.05 | 32.15 | 22.91 |
| Price Geyser | 764.74 | 1281.68 | 652.54 | 1188.66 | 921.66 | 1387.87 |
| Price Cooling & Heating | 219.73 | 330.95 | 194.41 | 319.42 | 255.14 | 343.72 |
| Own-House | 0.64 | 0.48 | 0.44 | 0.50 | 0.91 | 0.29 |
| Other Electric Appliances (O-Electric) | 5.05 | 2.55 | 4.89 | 2.77 | 5.29 | 2.18 |
| Household Size (Hhsize) | 5.20 | 1.75 | 5.45 | 1.67 | 4.86 | 1.80 |
| Household Income (Income-R) | 5749.09 | 5844.24 | 4005.50 | 3876.98 | 8187.42 | 7126.29 |
| Education Attained (Educ) | | | | | | |
| Primary or None (Primary) | 0.11 | 0.31 | 0.15 | 0.36 | 0.05 | 0.22 |
| Junior-Secondary (Junior-Sec) | 0.14 | 0.35 | 0.12 | 0.32 | 0.18 | 0.38 |
| Higher Secondary (Higher-Sec) | 0.37 | 0.48 | 0.42 | 0.49 | 0.30 | 0.46 |
| Tertiary | 0.23 | 0.42 | 0.19 | 0.39 | 0.28 | 0.45 |
| Degree Above (Degr-Above) | 0.16 | 0.36 | 0.13 | 0.34 | 0.20 | 0.40 |
| Behaviour Failure Indexes | | | | | | |
| Certainty Effect (CEI) | 59.02 | 21.21 | 52.58 | 21.09 | 68.03 | 17.86 |
| Heuristics (RUI) | 66.54 | 19.99 | 63.92 | 22.13 | 70.21 | 15.85 |
| Status Quo (SQI) | 67.40 | 20.64 | 64.96 | 22.30 | 70.81 | 17.55 |
| Brand Loyalty (BLI) | 70.37 | 19.28 | 69.65 | 19.72 | 71.37 | 18.63 |
| Impulsive Buying (IBI) | 57.74 | 19.51 | 51.87 | 19.45 | 65.96 | 16.41 |
| Infor-EE (govtinf*EEmsg = 1) | 0.40 | 0.49 | | | | |
| Motivation dummies* | | | | | | |
| Refrigeration | | | | | | |
| Durability (1, 0) | 0.45 | 0.50 | 0.69 | 0.46 | 0.23 | 0.42 |
| Low-Cost (1, 0) | 0.24 | 0.43 | 0.14 | 0.34 | 0.34 | 0.47 |
| Energy-Saving (1, 0) | 0.21 | 0.41 | 0.09 | 0.29 | 0.32 | 0.47 |
| Other-Reasons (1, 0) | 0.10 | 0.30 | 0.09 | 0.28 | 0.11 | 0.32 |
| Lighting | | | | | | |
| Durability (1, 0) | 0.10 | 0.30 | 0.04 | 0.20 | 0.19 | 0.39 |
| Low-Cost (1, 0) | 0.50 | 0.50 | 0.49 | 0.50 | 0.53 | 0.50 |
| Energy-Saving (1, 0) | 0.14 | 0.34 | 0.12 | 0.32 | 0.16 | 0.37 |
| Other-Reasons (1, 0) | 0.26 | 0.44 | 0.35 | 0.48 | 0.12 | 0.33 |
| Water Heating | | | | | | |
| Durability (1, 0) | 0.49 | 0.06 | 0.57 | 0.50 | 0.41 | 0.49 |
| Low-Cost (1, 0) | 0.14 | 0.35 | 0.05 | 0.22 | 0.24 | 0.43 |
| Energy-Saving (1, 0) | 0.9 | 0.29 | 0.10 | 0.31 | 0.08 | 0.28 |
| Other-Reasons (1, 0) | 0.27 | 0.44 | 0.27 | 0.31 | 0.26 | 0.44 |
| Room Cooling and Heating | | | | | | |

| Variable | Combined | | Malawi | | South Africa | |
|---------------------------|----------|---------|--------|---------|--------------|---------|
| | Mean | Std Dev | Mean | Std Dev | Mean | Std Dev |
| Durability (1, 0) | 0.43 | 0.50 | 0.53 | 0.50 | 0.32 | 0.47 |
| Low-Cost (1, 0) | 0.17 | 0.38 | 0.16 | 0.40 | 0.18 | 0.39 |
| Energy-Saving (1, 0) | 0.24 | 0.43 | 0.17 | 0.37 | 0.33 | 0.47 |
| Other-Reasons (1, 0) | 0.11 | 0.32 | 0.13 | 0.34 | 0.09 | 0.29 |
| Neighborhood Effect (NEI) | 69.28 | 19.00 | 67.31 | 20.31 | 72.03 | 16.63 |
| Sample Size | 933 | | 544 | | 389 | |

Source: Calculated by author

Note: * The dummies take the value of 1 for each particular motivation and 0 otherwise. Std Dev means standard deviation.

Key to the study was information on selected behaviour failures, namely *certainty-effect*, tendency to use *heuristics*, *status quo bias*, *brand loyalty*, and the manifestation of *impulsive buying* behaviour. Each of these behaviours failure constructs had five to eight attitude statements that respondents rated using the Likert Scale. The ratings ranged from strongly disagree (1) to strongly agree (5) except for impulsive buying, which used Barratt Impulsiveness Scale with ratings rarely/never (1), occasionally (2), often (3) and almost always/always (4) (Patton et al., 1995). Two approaches were used to construct the behaviour failure indexes: the *simple summation approach* and the *principal factor analysis (PFA) approach*. The *PFA* indexes use data reduction techniques that generate a single predictor variable from a set of variables (items) by identifying a linear combination of those variables that capture significant variance and achieve unidimensionality, which is a single factor underlying a set of items measuring a construct (Gerbing & Anderson, 1988; Kuhn & Johnson, 2013; Vaske et al., 2017)⁹. The study then conducted correlation tests of the two indices. The results showed strong positive correlations ranging from 0.9716 to 0.9998, as shown in Table A1 in the appendix. All the indexes were subjected to a reliability test using Cronbach’s Alpha test. The results, presented in the appendix Table 2A, indicated that all behaviour failure constructs exceeded the reliability score of 0.8. The derived indexes were *Certainty Effect Index (CEI)*, *Heuristics Index (RUI)*, *Status Quo Index (SQI)*, *Brand Loyalty Index (BLI)* and the *Impulsive Buying Index (IBI)*. Using the same approach, a *Neighbourhood Effect Index (NEI)* was also derived to measure the influence of friends and neighbours in use of the energy-efficient appliances.

Method of Analysis

3.4.1 Choice Model with Behaviour Failure Indexes

⁹ Prior to conducting the factor analysis, the study checked if there was sufficient intercorrelation among the construct items using Bartlett Sphericity Test as well as tested for sampling adequacy using Kaiser-Meyer-Olkin test. The results indicated that there were sufficient inter-correlations and the samples were adequate for factor analysis.

The decisions to invest in energy-efficient technologies at the household level are influenced by several factors. Conceptually, we assume that individual's choices are made based on the utility derived from the use of energy-efficient as described by the random utility model (Manski, 1977; McFadden, 2001). Under this framework, an individual n choose an alternative i from a finite choice set C_n that contains mutually exclusive alternatives, for instance energy efficient and inefficient appliances. Each alternative $i = 1, 2, \dots, I$ in the choice set C_n generates a latent utility U_{in} , which is specific to the individual, determined by both observed systematic function V_{in} and unobserved random components ε_{in} . The systematic components comprise attributes of alternative product choices, policy factors, consumer's socio-demographic attributes and behaviour orientation that explain the individual's choice. The utility function is presented as:

$$U_{in} = V_{in} + \varepsilon_{in} = \beta'X_{in} + \varepsilon_{in} \tag{1}$$

The individual n will opt for alternative i if and only if $U_{in} > U_{jn}$ for $\forall j \neq i$ given $i, j \in C_n$. The random components in the utility function transform the choice process into the stochastic process. Therefore, the probability that individual n choose alternative i from the choice set C_n will equal the probability that the sum of the systematic and random components of option i are larger than the systematic and random components of all the other competing alternatives j as presented in equation (2) below:

$$P_n(i|C_n) = \begin{cases} P[U_{in} \geq U_{jn}, & \forall j \in C_n] \\ P[(V_{in} + \varepsilon_{in}) > (V_{jn} + \varepsilon_{jn}), & \forall j \in C_n] \\ P[(\varepsilon_{jn} - \varepsilon_{in}) < (V_{in} - V_{jn})], & \forall j \in C_n \end{cases} \tag{2}$$

The vector of unobserved utility component ε_n is considered as a random vector with a joint density function $f(\varepsilon_n)$ and has a zero mean with covariance matrix Ω . From equation (2), we observe that the probability is a cumulative distribution of the random term $(\varepsilon_{jn} - \varepsilon_{in})$ and is given as in equation (3) below:

$$P_n(i|C_n) = \int_{-\infty}^{\infty} I[(\varepsilon_{jn} - \varepsilon_{in}) < (V_{in} - V_{jn}), j \neq i] f(\varepsilon_n) d\varepsilon_n = F_{\varepsilon_{jn} - \varepsilon_{in}}(V_{in} - V_{jn}) \tag{3}$$

where $I(\cdot)$ is the indicator function taking the value of 1 if the term inside the bracket is true and 0 otherwise. The error term ε is assumed to follow the logistic distribution, and logit regression models were estimated. The tractable expression for the choice probability of any alternative i is then presented as:

$$P_n(i|C_n) = \exp(\beta'X_{in}) / [1 + \exp(\beta'X_{in})] \tag{4}$$

Vector X includes various covariates that include indexes that measure certainty effect, tendency to use heuristics, status quo bias, brand loyalty and impulse buying behaviour. Equation (4) is linearized by constructing the odds ratio and take its natural logarithm function to yield the logit function presented in equation (5) below:

$$\mathcal{L} = \ln\{(P_n(i|C_n))/[1 - P_n(i|C_n)]\} = \beta'X_{in} \quad (5)$$

The models are estimated using the maximum likelihood estimation (MLE) method since it handles the non-linear regression function and generates consistent estimators.

3.4.2 Empirical Model Specification

For each household that owns the appliance in the discussion, a follow-up question was asked if the appliance was energy efficient or not based on labelling, soliciting a binary response of yes or no. Based on this, the study estimates the logit regression model for each of the appliances under consideration. The estimated logit models take the following general form:

$$\text{prob}(EE_{ik} = 1) = \Phi(\alpha_0 + \beta_{1ik}EBill_i + \beta_{2ik}Price_{ik} + \beta_{3ik}Income_i + \beta_{4ik}HChar_i + \beta_{5ik}BFI_i + \beta_{6ik}InfEE_i + \beta_{7ik}Motv_{ik} + \beta_{8ik}NEI_i) + \varepsilon_{ik} \quad (7)$$

where EE_{ik} is dummy taking value 1 if the appliance is energy efficient and 0 otherwise. The other variables are as defined in Table 2 above. The subscript $k = 1, 2, 3, 4$ represent the type of appliance where Refrigerator (1), Lighting (2), RHC (3) and WC (4).

3.4.3 Estimation Procedure and Diagnostics Tests

The estimation process used penalized maximum likelihood estimates called the *Firth Logistics* regression method due to non-convergence caused by complete or quasi separation problems in the conventional MLE (Firth, 1993; Rahman & Sultana, 2017). Complete or quasi separation problem occurs when predictors in a model create perfect or near-perfect separation between groups on the dependent variable, and the conventional MLE fails to generate finite estimates (Heinze & Schemper, 2002). This procedure generates estimates that are consistent, finite, and controls well type I error than score-based approach and is used in the model with continuous covariates, unlike Fisher's Exact logistic regression (Heinze & Schemper, 2002; Wang, 2014). Using this method, we obtain the odds ratio and the marginal effects that are not biased. Each model was further subjected to a misspecification test using the *Linktest*, and the results suggested at first that most models were wrongly specified. The models were further subjected to a transformation test based on methods described by Box and Tidwell (1962). The results of the Box-Tidwell procedure suggested the power transformation of variables *Income* and price of appliances (*Price*), and this was done.

Further, both Hosmer-Lemeshow and Pearson chi-squares test of goodness of fit were conducted (Hosmer et al., 2013). The results showed that the model fitted the data well. Models were estimated using the heteroscedasticity robust method, and variables were duly checked for multicollinearity to ensure efficient results. Further, the study assessed the sensitivity and specificity test. They all showed predicted values ranging from 0.396 to 0.903, as reported in Table 5 below.

4. RESULTS AND DISCUSSIONS

Differences in Use of Energy Efficient Appliances

South Africa is the first mover in establishing an energy-efficient strategy or policy, with standards enforcement and information provision through labelling as key policy instruments. At the same time, Malawi is considered a laggard as it is yet to develop clear policy guidelines on energy efficiency. Table 3 below summarizes the distribution of energy-efficient appliances among the sampled households, which reflect the role of active policy on the possession of energy efficiency. Malawian households use less energy-efficient appliances compared to their South African counterparts. Specifically, among the household sampled in Malawi, 40%, 53% and 73% did not possess appliances for refrigerating, RHC, and WH, respectively.

In contrast, in households in South Africa, the distribution was 5%, 43% and 63%, respectively. However, among the households that own such appliances, not all share an attribute of energy efficiency. In South Africa, 18% of the sampled households do not own energy-efficient refrigerators compared to 39% in Malawi. Similarly, 25% of South African sampled households do not use energy-efficient lighting compared to 69% in Malawi.

Despite both countries exhibiting a significant energy-efficient gap, evidence suggests that South African households use more energy-efficient appliances than Malawian households. Further, the mean-difference test presented in Table 4 below shows that the variations in the energy-efficient gap are also statistically significant at 1% level except for energy-efficient lighting bulbs, which is significant at 10% level. The difference can be attributed to, among others, the development and judicious use of energy-efficient strategies in South Africa, unlike the case in Malawi, which do not have a clear, unified energy-efficient policy or strategy. The South African strategy demands energy-efficient labelling of most electric appliances and enforcement of energy-efficient standards.

Based on results in Tables 3 and 4, it is tempting to conclude that an energy-efficient strategy is influential in households' decisions to use energy-efficient appliances. Specifically, South Africa has an energy-efficient labelling policy for most appliances, including refrigerators. She actively enforces it through the production and supply chains, while Malawi's salient requirement on importation and use of refrigerators is that they be ozone friendly (Government of Malawi, 2017). Both countries pursued the subsidized national-wide incandescent bulbs replacement programme for energy-efficient lighting, hence the small mean difference. However, it is also imperative to isolate other factors that have causal-effect on energy-efficient choices, as is done in the next section.

Table 3: Proportions of Households with Energy-efficient Appliances

| Appliance Type | Efficient Appliance | | Non-Efficient Appliances | | No Targeted Appliances | |
|---------------------|---------------------|------|--------------------------|------|------------------------|------|
| | MW | RSA | MW | RSA | MW | RSA |
| Refrigerating | 0.39 | 0.82 | 0.61 | 0.18 | 0.40 | 0.05 |
| Lighting (LED, CFL) | 0.69 | 0.75 | 0.31 | 0.25 | 0 | 0 |
| RHC | 0.46 | 0.61 | 0.54 | 0.39 | 0.53 | 0.43 |

| Appliance Type | Efficient Appliance | | Non-Efficient Appliances | | No Targeted Appliances | |
|----------------|---------------------|------|--------------------------|------|------------------------|------|
| | MW | RSA | MW | RSA | MW | RSA |
| WH | 0.55 | 0.79 | 0.45 | 0.21 | 0.76 | 0.63 |

Source: Calculated by authors

Table 4: Mean Differences of Energy-efficient Appliance Use based on Country

| Appliance Type | Mean | | Mean Difference | t-statistic | p-value |
|---------------------|--------|-------|-----------------|-------------|---------|
| | Malawi | South | | | |
| Refrigerating | 0.23 | 0.77 | -0.55*** | -19.61 | 0.0000 |
| Lighting (LED, CFL) | 0.69 | 0.75 | -0.06* | -1.95 | 0.0515 |
| RHC | 0.22 | 0.35 | -0.13*** | -4.51 | 0.0000 |
| WH (EE & Solar) | 0.16 | 0.30 | -0.14*** | -5.08 | 0.0000 |

Source: *Calculated by authors*. *** means statistical significant at 1%, ** means statistical significant at 5%, and * means statistical significant at 10%.

Influence of Behaviour Failures on Energy-Efficient Appliance Choices

The study estimated logit models to assess the influence of behaviour failures on a household's decision to use energy-efficient appliances while controlling the influence of other factors. Table 5 presents estimated regression results for each appliance under consideration using combined data from South Africa and Malawi. In contrast, Table 6 presents regression results for split samples based on the two countries individually.

Certainty-Effect

The CEI measures the tendency of households to prefer certain outcomes relative to the probable outcome. The results presented in Table 5 shows that CEI has no statistically significant effect on the household choice of energy-efficient appliances when the two samples are combined. Splitting the samples based on countries yield similar results. None of the appliances is statistically significantly influenced by CEI.

Table 5: Estimated results of energy-efficient appliances choices at the household level

| Variable | Marginal Effects for the Combined Data | | | |
|---|--|-----------|--------------|-----------|
| | Refrigerator | Lighting | WH | RCH |
| Monthly Electricity Bill (E-Bill) | 0.0014 | 0.0187 | -0.0390** | 0.0241 |
| Own Price | 0.0021*** | -0.0061 | 0.2782*** | - |
| Other Electric Appliances (O-Electric) | -0.0013 | -0.0147* | -0.0249** | -0.0038 |
| Education Attained (Educ) | | | | |
| Junior-Secondary (Junior-Sec) | 0.5439 | -0.0229 | 0.8816*** | -0.0859 |
| Higher Secondary (Higher-Sec) | 0.1271 | -0.0343 | -0.9882*** | -0.1071 |
| Tertiary | 0.0992 | -0.0425 | -0.9960*** | -0.1572 |
| Degree Above (Degr-Above) | 0.0578 | -0.0522 | -0.992228*** | 0.1824 |
| Household Size | 0.0103 | 0.0382 | -0.0301 | 0.0422 |
| Household Size Sq | -0.0028 | -0.0030 | 0.0024 | -0.0045 |
| Household Income | -0.0005*** | 0.0018 | 0.0053 | -0.4267* |
| Own-House | 0.1121* | -0.0158 | 0.0010 | -0.0063 |
| Behaviour Failure Indexes | | | | |
| Certainty Effect (CEI) | 0.0260 | -0.0222 | 0.0504 | 0.0067 |
| Heuristics (RUI) | -0.0313 | -0.0033 | -0.0505 | 0.0103 |
| Status Quo (SQI) | -0.0792** | -0.551** | 0.0506 | -0.0085 |
| Brand Loyalty (BLI) | 0.0330 | 0.0272 | -0.0065 | -0.0532* |
| Impulsive Buying (IBI) | 0.0278 | 0.0760*** | 0.0165 | 0.0852** |
| Infor-EE (govtinf*EEmsg = 1) | 0.3296*** | 0.0866* | 0.2343*** | 0.0971 |
| Motivation dummies ^P | | | | |
| Durability (1, 0) | 0.2095*** | 0.2838*** | 0.3168*** | 0.3142*** |
| Energy-Saving (1, 0) | 0.4261*** | 0.6416*** | 0.2177*** | 0.5557*** |
| Other-Reasons (1, 0) | 0.2100*** | 0.4008*** | 0.1734*** | 0.1952** |
| Neighborhood Effect (NEI) | 0.0021* | -0.0006 | 0.0018 | 0.0013 |
| Sample Size | 692 | 933 | 297 | 484 |
| Wald Statistics Chi ² | 165.4 | 178.72 | 215.40 | 177.70 |
| Pseudo-R ² | 0.4986 | 0.2296 | 0.5676 | 0.2658 |
| Hosmer-Lemeshow Prob(Chi ²) | 0.3404 | 0.7713 | 0.6691 | 0.7716 |
| Predicted Y | 0.7639 | 0.7424 | 0.8466 | 0.5749 |
| Correctly classified Percentage | 85.84 | 80.81 | 88.55 | 74.38 |
| Link test Hatsq Prob(z) | 0.539 | 0.678 | 0.396 | 0.903 |

Source: Calculated by author.

Note: *** means statistical significant at 1%, ** means statistical significant at 5%, and * means statistical significant at 10%. ^P The dummies take the value of 1 for each particular motivation and 0 otherwise.

Heuristics

The RUI measures the tendency of individuals to use rules of thumb or shortcuts in decision-making rather than acquire all the necessary information, partially reflecting the bounded rationality of the decision-makers. The results in Tables 5 and 6 show that RUI has no significant impact on household decisions to use energy-efficient appliances in both the combined or nationally split samples.

Status Quo Bias

The SQI measures the tendency of individuals to maintain the current option when new and probably better options are available. Results presented in Table 5 show that an increase in the status-quo-bias index significantly reduces the household's probability of using energy-efficient refrigeration and lighting bulbs when the samples are combined.

The probabilities are rather bigger for lighting bulbs than refrigerators. However, splitting sample based on country shows a similar effect on energy-efficient refrigeration and lighting bulbs in Malawi but not in South Africa. The low impact of this index on the household energy-efficient choice in South Africa can be attributed to information provision, standard enforcement and appliances labelling, which has minimized the influence of this variable. This can be seen from the policy dummy info*EEmsg reported in Table 5, which shows a significant positive effect across several appliances.

Brand Loyalty

The BLI measures households' tendency to choose appliances based on loyalty to a particular brand rather than other attributes. The results in Table 5 shows that brand loyalty has no significant impact on household decision to use energy-efficient appliances except for room cooling and heating appliances (RCH), whose probability declines as BLI increases. Comparatively, the country-specific samples in Table 6 indicate that brand loyalty increases the probability of choosing energy-efficient lighting bulbs while reducing the probability of choosing RHC in Malawi. However, this tendency has no significant effect on households' use of energy-efficient appliances in South Africa.

Impulse Buying Behaviour

IBI measures the tendency of a household to buy items based on impulse or lack of self-control rather than based on careful planning and thorough thought. The results presented in Table 5 impulsive buying increases the probability of choosing energy-efficient lighting bulbs and RHC. These results agree with Dharshing and Hille (2017) findings that showed that impulsiveness makes homeowners more prone to energy cost framing effect and attachment of more weight to future cost savings. In contrast, results in Table 6 show that impulsive buying increases the probability of using energy-efficient lighting and RHC in Malawi while it has significant impact on using the energy-efficient refrigerators in South Africa.

Table 6: Estimated results of the energy-efficient choices using separate data from South Africa and Malawi

| Variable | Marginal Effects for Malawi | | | | Marginal Effects South African | | | |
|-----------------------------------|-----------------------------|----------|------------|--------|--------------------------------|----------|--------------|---------|
| | Refrigerator | Lighting | WH | RCH | Refrigerator | Lighting | WH | RCH |
| Monthly Electricity Bill (E-Bill) | -0.0038 | 0.0408* | -0.2765*** | 0.0060 | -0.0025 | 0.0055 | -0.0035 | 0.0531* |
| Own Price ⁺⁺ | 0.0022** * | -0.0579 | 0.8392*** | - | 0.0005*** | 0.1467* | 0.0680 ** | |

| | | | | | | | | |
|---|----------|----------|------------|---------|-----------|---------|---------|----------|
| Other Electric Appliances (O-Electric) | 0.0065 | -0.0155 | -0.0223 | -0.0098 | -0.0012 | -0.0191 | -0.0065 | 0.0121 |
| Education Attained (Educ) | | | | | | | | |
| Junior-Secondary (Junior-Sec) | 0.1168 | -0.0320 | -0.6723*** | -0.0952 | -0.0171 | -0.0284 | - | -0.1965 |
| | | | | | | | 0.9729 | |
| | | | | | | | *** | |
| Higher Secondary (Higher-Sec) | 0.2921* | -0.0540 | -0.9813*** | -0.0864 | -0.0089 | -0.0354 | - | -0.1303 |
| | | | | | | | 0.9957 | |
| | | | | | | | *** | |
| Tertiary | 0.1796 | -0.0361 | -0.9871*** | -0.1884 | -0.0029 | -0.0598 | - | -0.1991 |
| | | | | | | | 0.9983 | |
| | | | | | | | *** | |
| Degree Above (Degr-Above) | 0.2636 | 0.0044 | -0.9778*** | 0.2144 | -0.0421 | -0.0832 | - | 0.1085 |
| | | | | | | | 0.9958 | |
| | | | | | | | *** | |
| Household Size(Hsize) | 0.0538 | 0.0496 | 0.1403 | -0.0047 | 0.0037 | 0.0438 | -0.0358 | -0.0057 |
| Household Size Sq | -0.0059 | -0.0040 | -0.012 | -0.0033 | -0.0006 | -0.0037 | 0.0036 | 0.0018 |
| Household Income (Income-R) | - | 0.0062 | 0.0029 | 0.0227 | -0.0002 | 0.0001 | 0.0012 | -0.0012 |
| | 0.0004** | | | ** | | | | |
| Own-House | 0.0628 | -0.0507 | 0.1095 | 0.0135 | 0.0872 | 0.0653 | -0.0112 | 0.0883 |
| Behaviour Failure Indexes | | | | | | | | |
| Certainty Effect (CEI) | 0.0564 | 0.0016 | 0.1043 | -0.0555 | 0.0004 | -0.0406 | 0.0119 | 0.0512 |
| Heuristics (RUI) | -0.0646 | 0.0029 | -0.1311 | 0.0031 | 0.0071 | -0.0039 | -0.0369 | 0.0378 |
| Status Quo (SQI) | -0.0941* | -0.0487* | 0.0820 | -0.0043 | -0.0144 | -0.0564 | 0.0655 | -0.0450 |
| Brand Loyalty (BLI) | 0.0139 | 0.0537** | 0.1202 | - | 0.0137 | | -0.0399 | 0.0014 |
| | | | | 0.1021 | | 0.0039 | | |
| | | | | ** | | | | |
| Impulsive Buying (IBI) | -0.0136 | 0.0924** | -0.0121 | 0.1415 | 0.0167* | 0.0314 | 0.0079 | 0.0454 |
| | | | | ** | | | | |
| Motivation dummies ^P | | | | | | | | |
| Durability (1, 0) | 0.1963* | 0.3067** | 0.7671*** | 0.3600 | 0.0330* | 0.2503 | 0.0480 | 0.2849** |
| | | * | | *** | | | | * |
| Energy-Saving (1, 0) | 0.7214** | 0.7197** | 0.3631*** | 0.6779 | 0.1198*** | 0.5671 | 0.0992 | 0.4186** |
| | * | * | | *** | | | | * |
| Other-Reasons (1, 0) | 0.3341* | 0.6003** | 0.4028*** | 0.3203 | 0.0324** | 0.2043 | 0.0252 | 0.0647 |
| | | * | | *** | | | * | |
| Neighborhood Effect (NEI) | 0.0015 | 0.0002 | 0.0033 | 0.987 | 0.0002 | -0.0010 | 0.0005 | 0.0033 |
| Sample Size | 324 | 544 | 153 | 258 | 368 | 389 | 144 | 226 |
| Wald Statistics Chi ² | 101.69 | 102.53 | 267.83 | 56.32 | 70.54 | 97.39 | 249.85 | 53.21 |
| Pseudo-R ² | 0.4155 | 0.2329 | 0.7434 | 0.3260 | 0.4637 | 0.2904 | 0.4569 | 0.2300 |
| Hosmer-Lemeshow Prob(Chi ²) | 0.8003 | 0.1678 | 0.0632 | 0.8143 | 0.2571 | 0.7239 | 0.9741 | 0.8744 |
| Link test Hatsq Prob(z) | 0.330 | 0.621 | 0.102 | 0.430 | 0.661 | 0.349 | 0.766 | 0.344 |

Other Determinants of Energy Efficient Choices

The control variables included in the choice models have an equally inconsistent influence on individuals' choice to invest in energy-efficient appliances except for motivational variables. Firstly, E-Bill has no significant impact on the decision to use energy-efficient appliances except water heating appliances for the combined sample. However, when we consider the sub-samples individually, E-Bill increases the probability of using energy-efficient lighting bulbs in Malawi but lower the probability of using water heaters in Malawi and room heating and cooling in South Africa, contrary to apriori expectation.

Secondly, the Own-Prices of the appliances increase the probability of using refrigerating contrary to apriori expectation. In contrast, for water heating appliances, the probability declines. However, for the split samples, Own-Price increases the probability of using energy-efficient refrigerators and water heating appliances in both countries while increasing the probability of using energy-saving bulbs. The prices of energy-saver bulbs are higher on average than ordinary incandescent bulbs. However, they are not substantive as the prices of the durable appliance. Thirdly, dummy variables for the highest educational level attained to have a negative influence on the use of water heating appliances while being insignificant in all the other appliances. In Malawi, attaining higher secondary level qualifications increases the probability of investing in refrigerators.

Fourthly, an increase in Income-R reduces the probability of using energy-efficient refrigerators and room cooling and appliances in the combined sample, contrary to apriori expectation. However, the split samples result in Table 6 show that income has no significant impact in South Africa but increases the probability of using water room cooling and heating appliances and reduce the probability of using the refrigerator in Malawi.

The policy dummy variable (*info*EEMsg*) provides interesting results. It shows that country that have policy increases the probability of using energy-efficient refrigerators, lighting bulbs, and water heaters than one without, ranging from 0.09 to 0.32. The implication is that government programmes of providing energy-efficiency related information or nudges and households receiving energy efficient messages, as done in South Africa, promote the use of energy-efficient appliances.

Finally, dummy variables for buying motivation shows that, relative to low cost, each dummy variable (durability, energy-saving, and other reasons) significantly increases the probability of using energy-efficient appliances when the samples are combined. The probabilities range from 0.22 to 0.64 for energy saving while that of durability range from 0.21 to 0.32. The same results were obtained after splitting the samples for Malawi. However, For South Africa, energy-saving and durability have no significant effect on lighting bulbs and water heating appliances while other reasons increase probability of buying refridgerator and water heaters.

5. CONCLUSION

The threat of global climate change, low access to clean energy and recurring energy deficits have emerged as driving factors to promote energy efficiency in Southern Africa Development Community (SADC) region. Despite strides made in developing energy-efficient technologies for lighting, room heating and cooling, water heating, and refrigeration, the level of adoption of these technologies in

the region is still low. While energy policies are making strides addressing market failures that influence households' decisions to use energy-efficient appliances, they often ignore the influence of behaviour failures. This study set out to determine the impact of selected behaviour failures on households' choices to use various energy-efficient appliances.

The results show that behaviour failures inconsistently influence the households' choice to use energy-efficient appliances. However, the split samples show that SQI, IBI and BLI have some significant impact in Malawi than South Africa. Specifically, SQI reduces the probability of using energy-efficient refrigeration and lighting. At the same time, IBI increases the probability of using energy-efficient bulbs and RHC when Malawi and South data is combined, and IBI reduces the probability of investing in RCH.

In contrast, the Malawian sample shows that SQI reduces the probability of using refrigerators and lighting bulbs. BLI increases the probability of using energy-efficient bulbs while reducing energy-efficient RHC, and IBI increases the probability of using efficient bulbs and RHC. In contrast, the South African sample shows that only impulsive buying increases the probability of using energy-efficient refrigerators. Among the control variables, own-price, motivation to buy appliances (durability, energy-saving and other reasons) and information provision policy increased the probability of using energy-efficient appliances.

This study, therefore, recommends firstly that energy efficiency policy should consider the influence of behaviour failure in designing policies, especially in Malawi. The policy prescription can vary according to the appliances as the influences are far different among the appliances. Secondly, additional studies need to be done in SADC on behaviour failures to demystify further its influence on household behaviour.

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APPENDICES

A. Computation of the Index Using Simple Summation

The formula for deriving the summated index is given in the equation (A1) below.

$$H_i = 100[dk_i]^{-1} \sum_{m=1}^k \beta_{mi} \quad A1$$

where H_i is the computed index value for construct i ; β is the Likert Scale rating for item m under construct i ; k_i is the number of retained statements under each construct after reliability or principal factor analysis as described below, and d is the integer capturing the highest rating for each construct. For example, if the following were the Likert scale ratings for a statement under each certainty effect construct with $a_1 = 2$, $a_2=4$, $a_3= 4$, $a_4=5$, $a_5=3$, and $a_6= 5$ while $d=5$ and $k_1 = 6$, then Certainty Effect Index (CEI) is computed as $H_1 = CEI = [2 + 4 + 4 + 5 + 3 + 5]/[5 \times 6] = 76.67$. All the other indexes (RUI, SQI, BLI, and IBI) follow the same procedure. The summary statistics of these indexes is shown in Table A1 below.

B. Computation of the Index Using Principal Factor Analysis

This method isolates factor components of a specific construct as part of data reduction to express multivariate data with fewer dimensions by extracting several factors that contribute significantly to the variance of the construct based on the reported eigenvalues. In developing the index using this method, the study aimed at extracting a single factor that had an eigenvalue greater than 1 or achieved *unidimensionality* (Gerbing & Anderson, 1988; Vaske et al., 2017). The Varimax rotation method was used to determine the number of driven factors or clarify the relationship among the factors. The final process of generating the index involved extracting the predicted values of each factor with eigenvalue > 1 using STATA version13. In our case, after making the necessary adjustments to constructs *certainty-effect* (CEI) and *impulsive-buying* (IBI), all the behaviour failure constructs achieved the unidimensionality, and their respective predicted values were extracted to generate the indexes. The factor eigenvalue > 1 corresponding to each construct is reported in Table A1 below.

Table A1: Correlation of Summation and Factor Analysis Based Indexes, and their Means

| | | Factor Analysis Based Index | | | | | Summation Based | | |
|-----------------------|--------------|-----------------------------|--------|--------|--------|--------|-----------------|-----|-----|
| | | CEI-F | RUI-F | SQI-F | BLI-F | IBI-F | Mean | Min | Max |
| Summation Based Index | <i>CEI-S</i> | 0.9723 | | | | | 59.02 | 20 | 100 |
| | <i>RUI-S</i> | | 0.9998 | | | | 66.54 | 20 | 100 |
| | <i>SQI-S</i> | | | 0.9999 | | | 66.40 | 20 | 100 |
| | <i>BLI-S</i> | | | | 0.9998 | | 70.37 | 24 | 100 |
| | <i>IBI-S</i> | | | | | 0.9716 | 61.99 | 25 | 100 |
| <i>Eigenvalue</i> | | 2.889 | 2.935 | 2.961 | 2.946 | 4.071 | | | |

C. Reliability and Validity of the Instruments Results

Table A2: Reliability and Construct Validity Test for Behaviour Failure Constructs.

| Construct | Index Code | Cronbach Alpha | Principal Factor Component | |
|---|------------|----------------|----------------------------|------------|
| | | | Eigen Value* | Proportion |
| <i>Certainty Effect (less item b)</i> | CEI | 0.8143 | 2.889 | 0.578 |
| <i>Heuristic</i> | RHI | 0.8222 | 2.935 | 0.587 |
| <i>Status Quo Bias</i> | SQI | 0.8268 | 2.961 | 0.592 |
| <i>Brand Loyalty</i> | BLI | 0.8247 | 2.946 | 0.589 |
| <i>Impulsive Behaviour (less f and h)</i> | IBI | 0.8572 | 4.071 | 0.509 |

All the behaviour failure construct achieved unidimensionality. As Vaske et al. (2017) argued, achieving unidimensionality implies homogeneity and, therefore, construct validity.

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ENTREPRENEURSHIP AND BUSINESS DEVELOPMENT IN THE ‘NEW NORMAL’: CAN SMALL BUSINESSES ADAPT?

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ABSTRACT

Entrepreneurship is considered an important driver in creating jobs, reducing economic and social disparities and advancing local economies in the country. The current unprecedented global crisis has impacted businesses and people’s health and thrown business into chaos, prompting instability and uncertainty, especially for small businesses and start-ups. Dealing with this crisis requires innovation and substantial shifts in business models. This presents significant problems for small businesses and entrepreneurs in the country, as many currently lack adaptive capacity and the latest technological advances. The focus in this paper is on entrepreneurship and small business development survival in the current Covid-19 era. Emphasis is on the resilience and sustainability of small businesses. The methodological design and approach is theoretical and based on a systematic literature review relevant to this current and evolving area of research in the context of the pandemic. A key question raised in the secondary research is whether entrepreneurs and small businesses are ready to adapt to the ‘new normal’? Opportunities exist to grow innovative entrepreneurship in the country and to facilitate small business development and growth. Adapting to the ‘new normal’ for small businesses and entrepreneurs implies innovation and a need to create disruptive industries. Co-operation between government, business and research organisations is necessary to grow connectivity in communities, facilitating research into new industries. There is a need to establish co-working spaces to promote entrepreneurship and to facilitate technology transfer, contributing to adaptation, diversification and growth of small businesses and entrepreneurs in the ‘new normal’. In conclusion, the current crisis and growing business uncertainty, both present and future, require radical shifts in order to address current challenges experienced.

Keywords: entrepreneurship; small business; innovation and adaptation; Covid-19; resilience and sustainability; disruptive industries

1. INTRODUCTION

Worldwide, small businesses constitute the backbone of many economies, creating jobs and income (Shafi et al., 2020; OECD, 2021; Das et al., 2020). Small businesses are, therefore, critical for generating employment, growing production, expanding exports and fostering innovation and

entrepreneurship (Department of Small Business Development (DSBD), 2017). Stephan et al. (2021, p. 2) assert that small and medium businesses constitute about 90% of businesses worldwide, providing 70% of employment. Additionally, Engidaw (2021, p. 2) asserts that, in general, small businesses account for most of the business population, regardless of the country's degree of economic and social development. Small businesses play a significant role in many countries, particularly those in Africa and Asia (Engidaw, 2021, p. 2). These businesses, however, due to their size, are particularly vulnerable to the Covid-19 epidemic and are consequently threatened by the global pandemic (Klein & Todesco, 2021; Rodrigues et al., 2021; Stephan et al., 2021). Since the outbreak of the Covid-19 pandemic, more than 70% of start-ups have been forced to reduce the number of full-time employees (De Cuyper et al., 2020, para. 1). At the same time, most entrepreneurial enterprises are shifting to satisfy new demands for goods or services created by the crisis (De Cuyper et al., 2020). Bosma et al. (2021), in the Global Entrepreneurship Monitor Report 2020/2021, report that entrepreneurship is essential across all economies, particularly during a pandemic. The report asserts that, although the spread of the disease continues to be intense, the recovery, which will inevitably happen, provides the opportunity to live and work differently. This creates the opportunity for small businesses to think and innovate in ways not previously possible (Bosma et al., 2021, p. 21). The global pandemic has brought both economic challenges and opportunities for businesses, as start-ups play significant roles in employment creation, innovation and economic development with the economy's long-term sectoral transition (OECD, 2021, p. 3).

Entrepreneurship, small business and the informal economy have, however, been affected by the global pandemic, disrupting both formal and informal business value chains. This has created uncertainty, which is especially evident in the rural areas, townships and informal settlements which lack the necessary resources and technologies to adapt. Moreover, the pandemic has further exacerbated the already-existing challenges that small businesses and start-ups faced, pre-Covid-19, in the country. Responding to this uncertainty, caused by both Covid-19 and existing challenges, requires small businesses to become more resilient. This necessitates them being locally attuned, adaptive and responsive to the current dynamics. Despite all the research on Covid-19, gaps remain in business and management (Rodrigues et al., 2021). The purpose of this paper is to examine entrepreneurship and small business survival as a significant focus in the current Covid-19 era. The focus emphasises resilience and sustainability of small businesses. A key question raised is whether entrepreneurs and small businesses are ready to adapt to the 'new normal'. The first section focuses on entrepreneurship and small business development in South Africa. It highlights and contextualises entrepreneurship and small business development challenges in the country. The second section focuses on the impact of Covid-19 on the economy, small business and entrepreneurship. The last section highlights ways to improve business development in the new normal as a key imperative to survival.

2. METHODOLOGY

Methodology for the study involved the use of secondary data. A desktop search was undertaken, with inclusion criteria locating literature, both local and international, on entrepreneurship, small business and the impact of the Covid-19 pandemic on business development. The paper is theoretical

and based on a systematic literature review relevant to this current and evolving area of research. The search involved online journals published between 2013 and 2021. The various databases incorporated in the search included Google Scholar; Sage; Sabinet; Emerald; Wiley online; ScienceDirect; Taylor & Francis and Springer, amongst others. Exclusion criteria ensured that no confidential or embargoed information was used in the research. Key words searched for include 'small business', 'Covid-19', 'entrepreneurship' and resilience. Scholarly literature reviewed included available research papers; peer reviewed journal articles; policy documents and reports; with surveys on entrepreneurship and small business development to make methodological sense of the foci of the paper.

3. UNDERSTANDING ENTREPRENEURSHIP AND SMALL BUSINESS DEVELOPMENT IN SOUTH AFRICA

Enterprise development and support is identified as one of the core policy pillars for local economic development (LED) in the country (Department of Co-operative Governance and Traditional Affairs (CoGTA), 2018). The DSBD is mandated to support small business development in South Africa. The department was established in 2014 to facilitate the promotion and development of small businesses, co-operatives and entrepreneurship. There are two key agencies assisting it in achieving its mandate: The Small Enterprise Development Agency (SEDA) offers non-financial business support and the Small Enterprise Finance Agency (SEFA) provides financial support to small enterprises. The DSBD (2017, p. 8) defines a small business as 'a collective for small, micro, and medium-sized businesses, as well as the informal market, and emerging co-operatives'. Small and medium businesses in South Africa account for approximately 91% of all the businesses in the formal sector, providing over 50% of the country's gross domestic product (Fatoki, 2018, p. 1). The informal sector largely consists of street vendors; businesses based at home; casual and contract labourers; domestic workers; and farm labourers (Khumalo et al., 2019, p. 772-3). This sector is mainly dominant within rural areas, townships and peri-urban areas, providing much needed income and informal employment. The DSBD (2017) further asserts that entrepreneurship can contribute to the country's growth and employment, particularly in the areas of innovation, as well as research and technological development. Bosma et al. (2021, p. 13) define entrepreneurship as the process of establishing and running a new enterprise. Entrepreneurship, as stated by Mokoena (2017), is important in the creation of job opportunities. Within South Africa, entrepreneurship is significantly rooted in either opportunity or necessity. Amorós et al. (2019, p. 725-6) suggest that entrepreneurs, motivated by opportunity, establish an enterprise in pursuit of expansion, profitability, innovation, and personal objectives. This is mainly associated with dynamic capabilities with the potential to generate jobs and boost economic productivity. On the hand, some entrepreneurs are motivated by necessity and establish a business in order to make up for the lack of an alternative source of income and employment (Amorós et al., 2019). This is frequently associated with informal activity; unemployment; economic distress and poverty. These entrepreneurs mainly go into business as a form of survival. Khumalo et al. (2019) found that, within the country, informal businesses are largely driven by unemployment, with approximately one-in-six employed in the sector; and with 80% of these businesses one-person businesses. This poses a significant challenge in growing

entrepreneurship in the country, as many of these businesses do not graduate beyond survival to create significant employment and boost productivity.

In South Africa, high unemployment is a significant challenge with entrepreneurship and small business development now prioritised by government. As such, entrepreneurship and small business development remain vital for economic development and innovation, with the potential to eradicate the ongoing triple challenges of unemployment, inequality and poverty. Entrepreneurship and small businesses thus play a significant role in economic growth and overall economic development (Chowdhury et al., 2019; Mokoena, 2017). This includes supporting local production capacity, creating job opportunities, and distributing national resources, income, knowledge and power in a fair manner that encourages rural industrial development and contributes to growth in exports (Engidaw, 2021, p. 2). Sautet (2013), however, contends that, whilst many economists agree that entrepreneurship boosts growth in industrialised countries, developing countries on the other hand, have seen little proof of this in reality. The author observed productive entrepreneurship with little matching progress. The creation and development of small businesses and entrepreneurship is considered crucial in ensuring its economic stability and sustainable development (Esterhuyzen & Louw, 2019; Fatoki, 2018). It was further found by Fatoki (2018) that, whilst small and medium businesses contribute significantly towards social and economic development of the country, they have a very high failure rate. The author asserts that approximately a third of small businesses within the country fail within the first five years of their establishment. Start-ups face a greater likelihood of failing than do established businesses, as they lack proven business strategies and legitimacy, and rely on co-operation of strangers (Bărbulescu et al., 2021, p. 2). This has serious implications for economic development, especially in terms of growing the economy, reducing poverty and, potentially, creating employment, especially in youth employment (Simbarashe et al., 2021, p. 121). Furthermore, although government is actively involved in assisting small businesses in developing and growing, it faces several challenges in fulfilling this role to achieve its mandate. This is evident in Table 1, which presents some challenges experienced.

Entrepreneurship and small business development challenges in South Africa

The quest for entrepreneurship frequently comes with significant stress, various barriers, and significant levels of uncertainty surrounding the outcomes (Fatoki, 2018, p. 9). Small businesses in the country face a multitude of challenges, as evidenced in Table 1. Fatoki (2018) states that these can be internal or external. Internal factors consist of poor business planning, limited entrepreneurial skills, and a dearth of creativity and innovation. External factors include intense competition, market accessibility, and the lack of capital (Fatoki, 2018). Entrepreneurs and small businesses in the country have limited training and skills; limited networks and collaboration; and limited access to finance, marketing and investment. Added to this are high administrative costs and inadequate start-up support, which limit business development in the country. In addition, the DSBD has identified the challenges of infrastructure; technology; high regulatory burdens; crime; the lack of trust and research and development; and small businesses preferring to remain informal, amongst others, as evidenced in the aforementioned discussion in Table 1. Bowmaker-Falconer and Herrington (2020) assert that

one of the major challenges confronting South African entrepreneurs is the country's relatively high data costs.

Table 1: Summary of challenges facing small business in South Africa

| | |
|---|--|
| Access to finance | <ul style="list-style-type: none"> Financial institutions do not understand small business structures. Funders prefer to lend during later stages of development. Access to finance is dependent on location. |
| Access to markets | <ul style="list-style-type: none"> Leads to the failure of many small businesses. Rural small businesses mostly affected. Preferential procurement requirements put pressure on SMMEs. |
| Technology | <ul style="list-style-type: none"> Vital for improving efficiency and output. Expensive Requires capital, which is difficult for many small businesses to access. |
| Infrastructure | <ul style="list-style-type: none"> Power cuts have a negative impact on small businesses as productivity is reduced. There is also a lack of physical infrastructure. Access to infrastructure is dependent on location. |
| Regulatory environment | <ul style="list-style-type: none"> Regulatory environment in South Africa is not conducive to the development of small businesses. Labour laws are restrictive and labour costs are high. Small businesses are burdened by licencing costs, registration and legal claims. |
| Management and technical skills | <ul style="list-style-type: none"> Education in business is vital when starting a company. Many small business owners do not have the skills. This undermines the success of the business. |
| Other challenges faced by small businesses | <ul style="list-style-type: none"> Lack of trust between co-operative members including non-interaction. Lack of research and development. Crime and other macroeconomic factors. |
| Challenges faced by government in developing the small business sector | <ul style="list-style-type: none"> Inadequate economic and social impact statistics. Lack of co-ordination between the departments in the public sector. Limited support from existing government enterprise development agencies, including policy issues. Limited promotional awareness, and small businesses prefer remaining informal. |

Source: Adapted from DSBD (2017, p.12)

Although government has tried to intervene in assisting small businesses to overcome these challenges, many of these interventions within the country have not been streamlined across sectors and agencies to fast-track business development and provide environments conducive for small businesses and start-ups to thrive. Correspondingly, the DSDB (2017) found that small business support and services offered by various institutions in the country are not streamlined, with many organisations duplicating services to the same enterprises. This leads to a fragmented small business environment that slows down economic progress. This is, moreover, hindered by the absence of a reliable, nation-wide statistical database reflecting, accurately, the contribution of SMMEs and co-operatives to the country's economy. This makes it difficult for entrepreneurs and small businesses

to be fully supported in overcoming these challenges. Bowmaker-Falconer and Herrington (2020), likewise, found that, over the last two decades, the South African government has established numerous programmes to foster entrepreneurial development. The authors conceded that, sadly, by using the average expert ratings, it was discovered that the effectiveness of these programmes is relatively low. This implies poor returns on effort and expense for government interventions. The OECD (2020, p. 5) suggests encouraging entrepreneurship training, university-business collaborations and network development, and maintaining investments, to help boost small business development and entrepreneurship potential to address some of the aforementioned challenges.

4. IMPACT OF COVID-19 ON THE ECONOMY AND BUSINESS DEVELOPMENT

Impact of Covid-19 on the world economy and South Africa

Undoubtedly, Covid-19 has caused major disruptions in the economy, businesses and people's livelihoods (Wilson et al., 2020). Along with a drastic impact on people's health, Covid-19 has had a devastating impact on many economies around the world (Bartik et al., 2020). The declaration of Covid-19 as a global pandemic by the World Health Organization in March 2020 saw strict measures taken up by many countries around the world to curb the spread of the disease. These included, amongst others, curfews and stricter national lockdowns that saw global economic markets plummeting as global trade was negatively affected (OECD, 2020; OECD, 2021). Governments throughout the world were continually put to the test and pushed beyond their limits. They have established new regulations and standards in an effort to restore confidence and offer economies a fighting chance of survival (De Cuyper et al., 2020). The economic impact of the unexpected shutdown of non-essential businesses is one of many difficulties, with consumer purchasing slowed down as a consequence of people remaining at home. This has put enormous strain on local business and, consequently, local economies (Wilson et al., 2020). The Covid-19 pandemic has had a detrimental influence on all sectors of the economy, including small businesses as well as start-ups, in both advanced and developing nations (Aldianto et al., 2021). The hardest-hit sectors, such as retail; hospitality; food services; entertainment services; and construction are disproportionately over-represented among SMEs (Thukral, 2021, p. 153). Since the African economy was already in distress when Covid-19 struck the continent, it is possible that the pandemic will exacerbate the situation even further (Lone & Ahmed, 2020, p. 1300). This economic crisis has the potential to negatively affect the attainment of the United Nation's Sustainable Development Goals, 2030, with its major impact on economic development (Bărbulescu et al., 2021; Cilliers et al., 2020).

South Africa, as a dual economy, has an informal economy that is underdeveloped, existing alongside a modern, industrialised and formal economy (Khumalo et al., 2019). The economy has been drastically affected by the global pandemic with most of the lockdown effects still felt by both informal and formal businesses. South Africa's economic performance has, over the past decade, been growing at a very slow rate, especially since the global recession in 2008, and is still trying to recover. The Covid-19 pandemic has now added further strain to the already weak and sluggish national economy. This is made worse by the compounding challenges of increasing unemployment, inequalities and drastic poverty levels. The disease has exacerbated these challenges and reduced economic activities and operations, disrupting incomes streams of many households and putting their

jobs at risk (Arndt et al., 2020). Garidzirai (2020, p. 10) asserts that the unemployment rate is certain to be the highest in history, with unemployment expected to widen income gaps and increase poverty. Recently, Statistics South Africa (Stats SA, 2021) estimated the unemployment rate at 32.5% in the fourth quarter of 2020. This is the highest rate recorded since 2008, and the beginning of the quarterly labour force survey. Arndt et al. (2020), moreover, argue that the lasting effects of the global pandemic will likely continue, affecting the country's GDP, with recovery anticipated to be very slow and long. The slow implementation or roll-out of the vaccine programme in the country is likely to make things worse as the country moves from the third wave potentially into the fourth wave of Covid-19. This could have a more devastating impact than the previous waves, as evidenced by the current catastrophic impacts felt by India in the third wave of infection. This is especially worrisome for South Africa, as it had been battling with several economic and development challenges prior to the pandemic. These includes challenges of high income-inequalities; high unemployment, especially amongst the youth; and high levels of poverty. Moreover, the country faces daunting challenges of poor service provision; constant electricity cuts; widespread corruption and high levels of crime, with notable spikes in gender based violence mostly affecting women and children. Most of these challenges faced by the country are exacerbated by the disease, further straining the economy and hindering overall development. This presents an opportunity for leaders to gain trust, boost unity, and exhibit budgetary competence (de Villiers et al., 2020).

Impact of Covid-19 on entrepreneurs and small businesses

The global pandemic has had a significant impact on small businesses, including start-ups (Aldianto et al., 2021; Bartik et al., 2020; Ertel, 2021; OECD, 2020; OECD, 2021; Rodrigues et al., 2021; Shafi et al., 2020; World Bank Group, 2020). The economy has, over the past few months since the national lockdown, seen disruptions in production and supply, which have created a lot of uncertainty for many businesses and households (Arndt et al., 2020). Due to Covid-19, restrictions and measures were put in place to curb the spread of the disease, such as national lockdowns and social distancing measures. These measures, however, as argued by de Villiers et al. (2020), have been ineffective in curbing the spread of Covid-19. Many businesses continue to experience losses, evident in the temporary or permanent shutdown of many small businesses, the dislocation of businesses, and the growing retrenchment of employees (OECD, 2020; World Bank Group, 2020). Furthermore, the International Labour Organization (ILO, 2020) has found that businesses have seen a reduction in working hours, affecting business operations and resulting in reduced revenues. Many businesses have had to shut their doors; whilst those that continue, struggle with the additional cost of ensuring compliance with Covid-19 regulations, notwithstanding their already fragile financial status (Bartik et al, 2020; World Bank group, 2020). These include additional costs of sanitisers and protective equipment for employees and customers, especially evident in the wholesale and retail trade sector, as one of the hardest hit sectors, and where most informal economy workers are located (ILO, 2020). The World Bank Group (2020) has argued that lockdowns disproportionately affect informal market players in service industries, where informal businesses and jobs are especially prevalent. Shafi et al. (2020) argue that small businesses are major victims of the global pandemic as they lack sufficient resources to deal with the global crisis. These small businesses are ill-equipped to deal with a crisis of this magnitude, previously primarily focusing on survival (Amujiri et al., 2021). During the

epidemic, small business financial resources were scarce for numerous reasons, including difficulties in obtaining government assistance, changing customer habits and declining cash flows and resource supplies (Klein & Todesco, 2021). A study conducted by Oni and Omonona (2020) on small retail businesses in a small South African town found that Covid-19 had negative impacts on the performance of small enterprises. This was as a result of deteriorating cash flows of small businesses, and remains significant concerns in the short-to-medium term.

A survey conducted by Survey Fiesta (2021), to comprehend the impact of Covid-19 on small businesses in the country, found that many small businesses saw the need to digitally transform their businesses for survival. The survey found almost half (49%) of businesses perceived a return to normal in the long-term. Interestingly, a third (33%) of the surveyed businesses believed there would be radical shifts and only 6% believed things would return to normal. Many small businesses have seen a significant negative impact on finances in their operations (Survey Fiesta, 2021). Whilst many small businesses lacked crisis response mechanisms to respond to the challenges caused by the global pandemic, many businesses have had to adapt to survive, by developing new products or services, introducing new initiatives and fast-tracking the development of products or services they had already planned to introduce (Survey Fiesta, 2021). The World Bank Group (2020) contends that workers and smaller businesses not registered with government do not have access to benefits. Informal businesses are associated with underdevelopment in a variety of sectors, including rising poverty; a lack of access to financial systems; inadequate public health and medical services; and inadequate safety nets. To mitigate the impact of Covid-19 on small enterprises, the South African government implemented several interventions (Oni & Omonona, 2020), including Covid-19 debt relief schemes and programmes to support small businesses during this period. Interestingly, although the government has established several initiatives to assist small businesses during the global pandemic, many small businesses have specified that they have not yet received any form of assistance from government to help them cope with the negative impact of the pandemic (Survey Fiesta, 2021). Oni and Omonona (2020) debate whether these measures will be beneficial in boosting small retail company performance. This increases the vulnerability of many small businesses and threatens to push a significant number of people into abject poverty (World Bank Group, 2020). Consequently, many businesses have had to take robust action, such as cutting travel and social expenses; budgets; working hours; outsourcing and hiring in order to reduce costs and keep their doors open (OECD, 2020; Survey Fiesta, 2021; World Bank Group, 2020). The OECD (2020), therefore, argues that the creation of new start-ups will probably be negatively challenged by the global crisis; but this may also create opportunities for small businesses. Although significant attention is now given to supporting small businesses and entrepreneurs, trading restrictions and new regulations have affected many businesses and forced them to look for different ways to adjust to the new normal in order to reach their customers. With both the formal and informal sectors of the economy affected by the global pandemic, technology and innovation are in demand in our daily lives (Amujiri et al., 2021).

5. IMPROVING SMALL BUSINESS DEVELOPMENT

Role of innovation and disruptive industries

The global pandemic has caused a lot of uncertainty and challenges for small businesses and entrepreneurship. This has required them to adjust and adapt to the changing environment. Consequently, entrepreneurs and small businesses need to be driven to continually innovate and adapt in order to secure their businesses (Aldianto et al., 2021). An innovation process takes place when a method or technology is improved or modified (Dossou-Yovo & Keen, 2021). The global pandemic, therefore, has given small businesses the opportunity to achieve this. De Massis et al. (2018) believe that entrepreneurial possibilities can take many forms, including new technology, information asymmetries, and environmental change; and are often sector-specific. This creates an opportunity for small businesses to expedite the digitisation of their businesses in order to increase their robustness, efficiency, and capacity to benefit from the Fourth Industrial Revolution (Cilliers et al., 2020). To help businesses innovate and to keep businesses functioning, dynamic capabilities and digital transformation are required from entrepreneurs (Aldianto et al., 2021, p.2). The use of new technologies, and more particular digitalisation initiatives, fosters the progress deemed critical for small business sustainability and competitiveness (Das et al., 2020). Innovation has been the primary driver of improved living standards over the years. However, Bărbulescu et al. (2021) contend that innovation can be a very disruptive process, as it renders established technology obsolete. The Covid-19 crisis, which led to business shutdown, distance working, and the need for social distancing, has triggered an acceleration of digitisation and a rise in the acceptance of new technology (Klein & Todesco, 2021; Stephan et al., 2020). This, then, implies that timely interventions are required to support digitisation in the country and fast-track technology transfer. However, small firms confront unique resource constraints, compared to bigger corporations, and the ability to manage innovation successfully might be especially difficult for small enterprises (Dossou-Yovo & Keen, 2021). Added to this, is the growing divide between the rich and poor in the country, with income inequality constantly rising.

The National Planning Commission (NPC, 2020, p. VII) has found that, along with income inequality, a digital inequality paradox exists in the country. This suggests that, with greater connectedness, the digital gap is expanding. Similarly, as technologies develop, the lines are becoming increasingly blurred between people who have the technological and financial resources to utilise the internet efficiently, and those who are hardly connected. This includes people who have no access to high-quality or costly data services and cannot use these data-intensive services (NPC, 2020). This is especially worrisome for many small businesses, especially businesses in the informal sector, where the digital divide is limiting their ability to adapt to the changing environment. The OECD (2021, p. 3) thus recommends targeted interventions that governments can adopt, geared towards reducing these divides, including:

- accelerating technology spread to achieve inclusive digital transformation;
- fostering an environment and incentives conducive to innovation and growth in start-ups, entry of potential entrepreneurs and an entrepreneurial environment for resource redistribution; and
- assisting workers in transitioning to new jobs, particularly those from more marginalised communities. (OECD, 2021, p. 3).

Although digitisation brings many benefits for businesses, Stephan et al. (2020) warn that rapid digitalisation creates more complexity in business. Concerns include data security and legal obligations for securing consumer information. Additionally, new technologies such as ‘digital platforms; cloud computing; the Internet of Things (IoT); big data; data science; artificial intelligence (AI); and blockchain’, mean businesses can either scale up rapidly or fall behind quickly (Bărbulescu et al., 2021, p. 4). Since the majority of firms are financially insecure as a result of the crisis, concerted efforts and government assistance are required to stimulate entrepreneurial ecosystems to fast-track innovation (Thukral, 2021). This should be accompanied by more innovation centres and business hubs geared towards promotion of innovative entrepreneurial ventures, technology transfer, and pro-innovation initiatives. They should support small businesses and stimulate economic growth in smaller towns and remote areas, involving training and consultancy centres (Gorączkowska & Tomaszewski, 2019, p. 185) to grow technological skills. For small businesses, entrepreneurs and start-ups, co-working spaces can stimulate networking, co-operation, and creativity. They provide an adaptable, collaborative, rentable and community-oriented workspace for professionals from a variety of sectors (Fuzi, 2015, p. 462). These have been built mostly in urban areas, and there is limited knowledge of how they function in sparsely populated areas and small towns (Fuzi, 2015, p. 462). In addressing Covid-19, the improvement of access to co-working spaces and technology incubators could greatly assist small businesses, especially informal businesses lacking technological know-how and working spaces, to grow their businesses and become more resilient.

Entrepreneurship resilience and sustainability

Fatoki (2018, p. 3) contends that, although resilience has become more cross-disciplinary, it remains largely under-theorised. Resilience is identified as a necessary characteristic for coping with difficulties (Rodrigues et al., 2021). It is important to understand how firms respond to change (Thukral, 2021, p. 153). Entrepreneurial or organisational resilience is a dynamic adaptive process enabling business owners to remain focused on their goals in spite of turbulent market conditions and destabilising events (Aldianto et al., 2021; Fatoki, 2018; Santoro et al., 2020). An entrepreneur must be able to endure severe personal and market situations, along with destabilising occurrences, while being forward-looking (Fatoki, 2018; Klein & Todesco, 2021; Stephan et al., 2020). Large corporations, as well-established SMEs, are the most common subjects of organisational resilience research (Aldianto et al., 2021). Aldianto et al. (2020, p. 4-6) have identified five key drivers of organisational resilience that are of great significance during this pandemic: dynamic capability, which refers to a business's ability to alter its capabilities in response to changing conditions; technological capability, which refers to the ability of individuals to access, distribute, and integrate digital resources to enhance business strategies and business processes; agile leadership, which refers to a leader's capacity to respond quickly, adaptably, and flexibly to unexpected occurrences in an unexpected environment; knowledge stock, which speaks to organisational learning and the ability of a business to increase its knowledge stock to contribute to service or product innovation; and innovation ambidexterity, which takes advantage of existing abilities to facilitate disruptive technologies and explore new prospects. The author also notes that the impact of Covid-19 can either intensify or diminish innovation and knowledge stock, directly impacting on business resilience. Santoro et al. (2020) in exploring the relationship between entrepreneurship resilience and success,

found that the perceived resilience of entrepreneurs is mainly linked with their perception of success. Entrepreneurial success is, therefore, not only about organisational performance, but also individual accomplishment (Fatoki., 2018; Stephan et al., 2020; Rodrigues et al., 2021). As such, individual and organisational resilience must work in tandem to convert and adapt the material, human, and intangible resources associated with new strategies (Rodrigues et al., 2021). Entrepreneurial resilience may be a major factor in the success and sustainability of SMEs (Fatoki, 2018) and can be accomplished by creating favourable conditions and incentives for start-ups and would-be entrepreneurs. Furthermore, this relationship is found to be stronger for entrepreneurs with a widespread stakeholder network (Santoro et al., 2020). Networks of stakeholders can provide entrepreneurs with a significant amount of knowledge and social capital that can be used to withstand adverse conditions and help them thrive in the long term (OECD, 2021; Santoro et al., 2020).

Resilience enables entrepreneurs to weather internal and external disruptions, and could be a factor in their success or failure (Fatoki, 2018). Business resilience identifies and understands critical risks, including those related to products and services; management and employees; operations; buildings; and customers and vendors, including the value chain (Aldianto et al., 2021). Growing entrepreneurial and small business resilience, therefore, requires effective measures to be put in place. These include, but are not limited to, lowering compliance costs; reducing regulatory uncertainty; facilitating entrepreneurial skills; developing networks among various stakeholders in the entrepreneurial ecosystem; and fostering university-business collaborative partnerships (OECD, 2021). Furthermore, strengthening business vitality, promoting entrepreneurship and an entrepreneur-friendly environment is crucial in this regard (OECD, 2021). This emphasises the crucial role of government in initiating efforts to assist SMEs in the short run; otherwise, many of these businesses may be unable to continue operating and will shut down permanently. As a result, government assistance or public policy is critical in fostering small business resilience, leading to a more inclusive and sustainable growth (Thukral, 2021). The reviewed National Framework for LED (2018) perceives SMMEs as important drivers of LED. As such, it identifies the need to fast-track the introduction and intensification of innovative economic infrastructure provision to support business development; and to increase efforts in ensuring value chain development targeted at entrepreneurial opportunities and innovation (CoGTA, 2018). Business networks play a crucial role, especially for small- and medium-sized businesses in search of new business prospects (Santoro et al., 2020). Venter (2019) states the necessity to identify small businesses and entrepreneurship opportunities through facilitating networks and partnerships with local business and other key stakeholders. These include, amongst others, business chambers and associations; development agencies; all spheres of government and financial institutions; and NPOs and NGOs. All these stakeholders are crucial in supporting entrepreneurship and small business development to ensure their long-term resilience and sustainability. Consumers and businesses, alike, will face new demands as a result of the new normal. One can, therefore, only live in the new normal by embracing such opportunities (Bowmaker-Falconer & Herrington, 2020).

6. CONCLUSION AND RECOMMENDATIONS

From discussion and evidence presented, it can be said that the Covid-19 pandemic has compelled numerous businesses to shut down, and disrupted business operations and global trade. Small businesses have been disproportionately affected by the regulations implemented to curb the spread of the disease. The Covid-19 epidemic continues to challenge small businesses worldwide and influence digital transformation, as well as financial prospects in the long-term. Whether entrepreneurs and small businesses are ready to adapt to the ‘new normal’, is dependent on their ability to shift perspectives and tactical approaches for moving forward. The importance of resilience in entrepreneurs should not be understated. Small businesses need to be more resilient and seek opportunities to take risks, and capitalise on them. Businesses that have a strong dynamic and technological capability will be more resilient than those that do not. These capabilities can be seen in the introduction of new products/services, more efficient processes, and modifications intended to adapt to environmental changes (Aldianto et al., 2021). Both the economic crisis and growing business uncertainties call for fundamental adjustments. Small businesses ought to adjust to changing times with agility and flexibility. The study recommends enhancing structural improvements boosting opportunities, business vitality, resilience and sustainability with solid and affirming regulatory policy intervention to accelerate technology diffusion, cut costs in technology adoption. Entrepreneurship and small business support should focus on increased resilience, innovation, longevity and survival.

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EXPLORATION OF ECONOMIC VICTIMISATIONS OF ELDERLY PEOPLE AT MANDLHAKAZI VILLAGE IN LIMPOPO PROVINCE

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ABSTRACT

The economic victimisation of elderly people covers a wide range of aspects involving amongst others, the unlawful or improper use of elderly people's funds and their possessions. Some elderly people are economically exploited and deprived by strangers and family members of the liberty to spend their finances. Available statistics show that there is limited information on the topic because the cases of economic victimisation against elderly people are underreported by the victims. Across the globe, these social phenomena against elderly people are a contentious issue that will persist in the future for as long as crime exists. Nevertheless, efforts to combat and eliminate the occurrences still remain within the structures that are intended to fight crime. This paper explores in-depth information, knowledge, experiences, and the causes of economic victimisation against the elderly people at Mandlhakazi Village in the Limpopo Province. This research adopted a qualitative approach, which was guided by the exploratory research design. The method of sampling that was embraced in the study to select participants is the snowball sampling method which falls into non-probability sampling. Face-to-face interviews were conducted with 20 participants who were above 60 years of age. The interviews aided the researchers to get in-depth experiences of the elderly people on the crimes that were committed against them. Open-ended questions were asked by the researchers. Thematic content analysis was applied to analyse the collected data. The findings of the study established that the economic victimisations of the elderly people were due to the ignored high level of crimes and unresolved socio-economic issues such as drug abuse, gang related activities, improper amusement facilities, unemployment, and young offenders. It is recommended that the local law enforcement agencies should introduce by-laws that include strictly looking at the economic victimisations of the elderly people and restoring justice by ensuring that the perpetrators receive harsh punishment. The justice system should not be 'soft' on the crime perpetrators.

Keywords: Explorations, economic victimisation, Mandlhakazi Village, elderly people, Limpopo Province.

1. INTRODUCTION AND PROBLEM STATEMENT

Elderly abuse is recognised as a global social problem that is experienced by the aged population (Sebastian & Sekher, 2010; Deka & Patir, 2018; Curcio, Payàn-Villamizar, Jiménez & Gómez, 2019). In addition, Curcio *et al.* (2019) regarded the victimisation of the aged as a topic that is neglected by researchers. The economic victimisation that this study addresses forms part of the abuse that is directed to the elderly (Bachman, 2013). Payne and Strasser (2012) indicate that the elderly people are part of the most vulnerable group that suffer from economic victimisation. In most societies, the financial exploitation of the elderly people has become one of the common social problems affecting old people (Martins, Neto, Andrade & Albuquerque, 2014). Moreover, the problem is increasing or likely to increase because of the high number of the aged population (Frazão, Silva, Norton & Magalhães, 2014; Martins *et al.*, 2014; Curcio *et al.*, 2019). The elderly people are targeted because the perpetrators view them as a means of economic gain (Payne & Strasser, 2012).

Exploitative crimes against elders can be committed in various manners which include but are not limited to forced alteration of a will and other legal documents, clandestinely obtaining pins for bank cards to withdraw money and other acts that deprive the elderly of economic freedom (Bachman, 2013). In addition, the economic victimisation of elders also entails the manner in which perpetrators exploit elderly people by capturing their assets, or by assuring them lifelong custody or care in exchange of money but the perpetrators fail to adhere to the promise (Bachman, 2013). As such, this becomes one of the serious social problems which need urgent attention from the community, the scholars, government, and other agencies.

There are multiple factors that increase an elderly person's likelihood of becoming a target of financial victimisation and these include their age, as well as involvement in services such as telephone marketing where they are charmed into accepting telephonic contracts in insurance policies (Tueth, 2000). Moreover, the help that the elderly get from relatives can make it conducive for economic victimisation (Tueth, 2000), as there is minimum effort used by the perpetrators. Instead of societies honouring elderly people as individuals who are knowledgeable in maintaining bonds within families; they economically exploit them (Rabiner & Brown, 2004). The aged are deprived of their financial freedom and are sometimes intimidated into giving away their money or assets (Deka & Patir, 2018). Furthermore, this prohibition of access to finances could be as a result of the perpetrators telling the elders that their money has to be saved so that it may be used when they die to perform certain rituals, while the money is being used to benefit the perpetrator.

Even though it is well known that the occurrence of economic victimisation differs from other forms of elder maltreatment, particularly, physical abuse, abandonment, and hybrid financial exploitation, it comes across a number of important domains. Ceccato (2016) considers this form of victimisation to be unlikely to be reported, and when reported the chances of investigation and prosecution are minimal. Police play a significant role in encouraging reporting and in the successful prosecution of the perpetrators of the economic exploitation of the elderly population. Adib, Esmali, Zakerimoghdam and Nayeri (2019) found that in some instances, the police gave the perpetrators a chance to escape prosecution, by advising the elderly victims not to file official complaints, because to the police, abuse was not a serious problem. Moreover, the elders were advised to cope with the

abuse and address it as a family because they considered the abuse of the elderly to be a family conflict (Adib *et al.*, 2019). The elders may also not report because they do not want to cause problems for their family and also because they see the abuse as confidential (Deka & Patir, 2018).

Morgan and Mason (2014) are concerned that aging may result in certain diseases such as disabilities, and mental conditions as the body's ability deteriorates as people grow old. This makes elderly people easy targets because they are unlikely to retaliate. The chances of not seeking legal actions are greater when the elderly are victimised by a family member, than an outsider (Bristowe & Collins, 1998; Morgan & Mason, 2014; Long, Liu, Black & Molony, 2006). The abuser may also realise that the older person with poor health may not live long enough to go through with lengthy legal proceedings (Morgan & Mason, 2014). This study was aimed at exploring the nature, causes as well as the negative effects of the economic victimisation of the elderly.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Exploring the economic victimisation of elderly people

More understanding on the diverse nature of elderly economic victimisation, factors enforcing its occurrence and the consequences is accelerated through the exploration of the dynamics of elder economic victimisation. Reisig and Holtfreter (2013) as well as Kratcoski (2016) indicate that the economic victimisation of elderly people occurs because perpetrators identify them as suitable targets. Sales representatives are able to easily convince them to buy certain products by telling them about the excellence of the products. For example, because they are old, they may be easily conned into buying products that will supposedly remove wrinkles and make them look younger within a short period of time (Reisig & Holtfreter, 2013). In addition, the underreporting of the crimes committed against the elderly, increases the prevalence of this crime thereof.

Sebastian and Sekher (2010) as well as Kratcoski (2016) identify the following reasons for elderly people not reporting when they experience economic victimisation: their relationship with the offender, fear of further harassment and isolation, and also when they are convinced that reporting will not deter the perpetrator to discontinue the victimisation. Deka and Patir (2018) as well as Adib *et al.* (2019) highlight that elderly people do not report victimisation because they fear that; their children might not give them a dignified funeral, fear social stigma or rejection by family members that will lead to them experiencing a lonely death and or being sent to nursing homes. Interestingly, the research by Deka and Patir (2018) also found a link between culture and the non-reporting of elderly abuse in India.

In most South African rural communities, the majority of the young people are unemployed and depend on others. There are some social issues resulting from economic shortcomings among residents, poverty and crime which are amongst the pushing factors that are mitigating economic crimes among citizens. Price, King, Dillar and Bulot (2011) indicate that the advancement in knowledge in terms of understanding the matters of elderly people's economic victimisation, demonstrates that economic victimisation is one of the most conventional form of victimisation that is affecting the elderly population. The World Health Organisation [WHO] (2008) shows a major concern about economic victimisation and its connection to the physical and emotional injury of

elderly people. According to Price *et al.* (2011), the World Bank uses the term “economic victimisation” to generally describe the cruelty caused to another individual who is being financially exploited.

Moore (2010) states that in most cases, gaining possession of an elderly person’s resources is often achieved through exercising physical abuse. The perpetrator may promote physical contact, which allows them to use power if the victim refuses to provide what they are demanding. This manifests the occurrence of physical victimisation along the line of economic victimisation. Furthermore, Moore (2010) posits that blowing a whistle on economic victimisation may result in neglect, or abandonment of an elderly person.

2.2 Theoretical framework

This study was guided by the Rational Choice Theory (RCT) which is an overarching framework that explains the economic victimisation of elderly people at Mandlhakazi Village. The RCT is also known as a choice theory and a framework for gaining insights into the social and economic behaviour of individuals. The RCT argues that an individual can decide on how to behave in the society, based on the benefits and losses that the behaviour is likely to produce (Cohen & Felson, 1993).

The theory focuses on the determinants of individual choices. The theory assumes that individuals have preferences that allow them to choose their preferred option. In addition, Clark (1996) points out that the theory is a principle of criminology that views man as a reasoning actor who weighs means and ends, costs and benefits, and makes a rational choice. In this regard, this theory assisted the researcher to understand the economic exploitation that is committed against the elderly people. In addition, a perpetrator makes a calculated choice on who to target, before approaching their victim (Clark, 1996), who in terms of this study, is an elderly person.

3. RESEARCH METHODOLOGY

3.1 Research design and sampling

The exploration of the economic victimisation of the elderly people adopted a qualitative method, and the snowball sampling method was used to select participants from Mandlhakazi Village that is located in the Nwamitwa Area, 32 kilometres away from Tzaneen in the Limpopo Province. Elderly individuals who are aged above 60 years served as the informants of the study. Face-to-face interviews were conducted as a tool for data collection and the data was analysed through Thematic Content Analysis. Face-to-face interviews were held between 1 March 2018 and 31 May 2018. The study was guided by the exploratory research design to explore the forms, causes and the negative outcomes of economic victimisation against the elderly. The exploratory design enables researchers to gain new insights, while discovering new ideas and increasing knowledge about the people’s social experiences (Creswell, 2013). According to Burns and Groves (2003), Patton (2015) as well as Niewenhuis (2016), qualitative studies attempt to uncover the deeper meaning, experiences, and the significance of human behaviour. In this case, the researchers were interested in gaining an understanding of the elderly people’s economic victimisation experiences.

3.2 Data collection and analysis

Ethical clearance was sought from the Turfloop Research Ethics Committee (TREC/37/2018/PG) 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. Participants were informed about their rights to refuse to participate if they are not willing to. Confidentiality and the anonymity of 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 interrogations.

This research used snowball sampling to select elderly people who participated in the study. The snowball sampling technique is beneficial in studies where potential subjects are hard to locate (Polit & Hungler, 2004; Laher & Botha, 2012; Waller, Farquharson & Demsey, 2016). The snowball sampling method enabled the researcher to locate possible participants through referral by 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 (Bless, Higson-Smith & Sithole, 2013); until data reached saturation.

Face-to-face in-depth interviews were deemed suitable for the study to enable the researchers to collect rich data and to make a follow up on certain responses that were not clearly articulated (Patton, 2015; Niewenhuis, 2016). Some participants lived with their children and grandchildren within a single household, while some lived with their close relatives, or alone. Amongst them, there is no one who was sent to old age-homes. In this rural community, it is inappropriate to take elderly people to old age-homes. The definition of elderly people in this study is from Kuhn (1999), that refers to elderly people as individuals in the latest stage of their life cycle, often considered to be above 60 years of age (Kuhn, 1999). This definition is considered because the South African government regards elderly people as those that are above the age of 60 years, these are the people that are eligible to receive financial support in the form of social grants.

4. RESULTS AND DISCUSSION

This section presents and discusses the results of the study of the economic victimisation of elderly people in Mandlhakazi Village, in the Limpopo Province. The results show that elderly people are exposed to economic victimisation. The perpetrators of this crime weigh their gains over losses by choosing to victimise elderly people. Economic victimisation brings much insecurity to elders, which has negative consequences on their social and psychological well-being, and that can be very challenging in their lives as they can be susceptible to depression, heart attacks, strokes, social isolation, unnecessary tensions as well as situations that might lead to the premature death of victims.

Martins *et al.* (2014) as well as Mishra, Shekhar and Gouda (2016) found that the chances of victimisation increase because the elderly persons depend on others for care. The current study found that some participants live alone, while some live-in nuclear families. Those who live by themselves as well as those who live in nuclear families have been financially exploited. This is similar to the findings by Sebastian and Sekher (2010) in India and also by Curcio *et al.* (2019) in Colombia.

The elderly people residing in Mandlhakazi Village form part of the old age population who receive social care grants from the government. Due to the fact that they are living within the population that is characterised by poverty due to unemployment, they became potential victims of economic crimes. They are robbed or forced to use the money to cater for the needs of their children, grandchildren, care givers and even friends. Fraga, Lindert, Barros, Torres-González, Ioannidi-Kapalon, Melchiorre, Strankonas and Soares (2014) indicate that the risk of elderly abuse is higher in countries that are less wealthy. South Africa is a developing country, with an unemployment rate of 26.7% in 2019 (Statistics South Africa, 2019). Fraga *et al.* (2014), Martins *et al.* (2014), as well as Das, Naskar and Das (2019) found that women who have less education (primary) or are illiterate are more likely to be financially exploited. This corroborates the findings of the current study that found that women who have primary education and those who never went to school are usually scammed or robbed. In addition, Sebastian and Sekher (2020) found that in India women are exploited because they lack access to economic resources.

Based on the information gathered from the selected participants, several challenges were cited and are discussed in this section.

Theme 1: The nature of economic victimisation against elderly people

Some elderly people admitted to being concerned about economic victimisation because they are more vulnerable targets. The economic victimisation of the elderly people is a crime as the perpetrators' intention is to gain financially from the elderly individuals, which comprises fiduciary abuse, financial abuse, economic abuse, exploitation, and the financial mistreatment of the elderly population. As this act encompasses a broad range of conduct, it may occur in this way, shop attendants may be short-changing their elderly clients intentionally (Erdman, Palmore, Branch & Harris, 2016) or family members may be exploiting elderly members financially (Fraga *et al.*, 2014; Morgan & Mason, 2014; Mishra *et al.*, 2016; Kratcoski, 2016; Curcio *et al.*, 2019). One of the elderly people echoed the following in the current study.

"I have been defrauded and over charged several times in the informal markets while shopping, due to my poor financial competence when it comes to money. I am more likely to be robbed money when I am buying products in the public markets" (old man aged 79, P7).

The study conducted by Fakari, Heshemi and Fakari (2012) found that aged people have been economically exploited in varying degrees, with some being prohibited to access their money. Meanwhile, Deka and Patir (2018) uncovered that there was a transfer of an elder's property to the perpetrator's name, and this had been done without the elder's knowledge. Consequently, the act leaves the aged with no place to stay. The aforementioned authors also found that children who are addicted to drugs and substances can demand money from their aged parent(s) to feed their addiction. The following statement was made with regard to the use of substances:

"I consider the usage of substances among young people to be one of the contributing factors towards victimisation of elderly people. When they don't have money to buy, they rob elderly people" (old woman aged 89, P6).

Morgan and Mason (2014) regard family members as well as people who are familiar to the victims to be in the frontline in the economic victimisation of elderly people. Old people find it hard and challenging to serve themselves independently, which necessitate external assistance that may come from family members, relatives and even neighbours (Tueth, 2000; Fraga *et al.*, 2014; Kratcoski, 2016; Curcio *et al.*, 2019). The external help can produce a situation that makes them vulnerable to economic victimisation. Inevitably, perpetrators are more likely to be people who are well known to the elderly person, and they may have worked very hard to obtain their trust and confidence (Morgan & Mason, 2014). These may include their own children. In this regard the following was said:

“My family always borrow money from me and promise to payback, they keep on coming with request for money claiming to have emergency matters which needs financial assistance but fail to honour the promise of paying back” (old woman aged 70, P 17).

Theme 2: Factors contributing to economic victimisation

Sebastian and Sekher (2010) as well as Bachman (2013) indicate that there are several factors that make elderly people susceptible to economic victimisation. In addition, conditions such as disability, forgetfulness or other cognitive impairments make them targets for economic victimisation because they pose minimal risk to an offender being punished; more especially because they are less likely to take actions against the abuser, particularly when family members are the perpetrators (Bristowe & Collins, 1998; Morgan & Mason, 2014). It can be argued that these are some of the aspects that perpetrators take into consideration when they make a calculated choice to target elderly people. An elderly person indicated that forgetfulness makes her husband prone to victimisation in the statement that follows:

“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 it is the female elders who are the ones supporting their families with their social grant money. Most young people are unemployed and depend on their grandmothers to provide for them. Being a woman seems to increase economic exploitation among the elderly. This is in line with other studies such as those by Tueth (2000); Bernatz, Aziz and Mosqueda (2001); Curcio *et al.* (2019) that allege that targets for financial victimisation are generally women over 75 who are living alone. Martins *et al.* (2014), however, found that financial abuse is more likely to be experienced by women less than 75 years.

Dessin (2000) as well as Mishra *et al.* (2016) argue that women live longer than men, as such more women are available to be targeted for financial victimisation as compared to the elderly male. In addition, Fox (2007) states that perpetrators see women as weak and vulnerable in general. Women tend to tolerate abuse and are unwilling to cut relations with those who abuse them (Curcio *et al.*, 2019). Furthermore, Fakari *et al.* (2012) regards females to be silent victims who choose to remain unmarried when their husbands die. The marriage after the passing on of their husband in this instance could serve as a protective measure, as they will no longer have to live alone, but will have a

companion that can be their shield against economic exploitation. In an Indian context, Sebastian and Sekher (2010) allege that women are at a greater risk of exploitation due to the existing patriarchal society that discriminates women based on gender. In this study there were more females than males who admitted having been robbed.

“I have no access to my social grant; my children have extended family far from my house; they are all unemployed and rely on my social care grant for their survival. They come and take my card to buy basic things for their families and leave me with very little money” (old woman aged 80, P 9).

“I live in an overcrowded family under a single household, my children force me to financially support the entire family with the social care grant that I receive. I buy things for the house and remain with nothing for my own needs, this is a burden to me. Social care grant is not enough to cater for my entire family. I do this under pressure” (old woman aged 72, P 6).

Peri, Fanslow, Hard and Parsons (2009) found that cultural expectations contribute to the financial victimisation of elderly women. In this culture, the above researchers highlight that women are denied the opportunity of handling and making financial decisions. As such, when the husband dies, they lack knowledge of handling finances. This lack of knowledge makes them vulnerable to economic exploitation. In this research an elderly woman said:

“Financial illiteracy in my case increases chances of being robbed of my money, I always seek help from people around me. These people sometimes take chances and steal from me. I believe that if I was fortunate with financial knowledge, the chances of becoming a victim would be minimal” (old woman aged 79, P 1).

“I cannot read prices, as such I do not know how much an item that I want cost. I always have to ask around, sometimes retailers and vendors are not transparent, they lie about the price” (old man aged 73, P 15).

“My husband and I receive social grant, but all he does is to go and buy uMuquomboti and drink the whole day; when his money is finished, he demands money from me, which I sometimes don't have. We even fight because he uses his money recklessly” (old woman aged 85, P 20).

Theme 3: The impact of economic crimes against elderly people

Kelly (2000) states that economic victimisation is devastating because the elders who have been defrauded of their home, life savings and property may never recover from the loss. A study by Bachman (2013) confirms the rise in economic victimisation that causes anxiety in many communities. Meanwhile, Jackson and Gouesti (2012) 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 result in a stroke. Either way, economic victimisation 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.

“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, P 10).

The study found that economic victimisation has both financial and psychological consequences to the victims, as the participants echoed that overthinking and insecurities caused by fear of victimisation attracts stroke related diseases and unnecessary heart attacks. Fraga *et al.* (2014) indicate that the diseases that are associated with old-age are more likely to increase, when there is a prevalence of any form of abuse. Research by Kleinschmidt (1997) described that the elders who suffer from any form of abuse such as neglect, or exploitation are three times more likely to die of stroke related conditions compared to those who have not suffered abuse. This implies that economic victimisation against elderly people can devastate them to the point that result in premature death of the victim.

“Economic abuse may affect an elder’s health and causes stress that may lead to premature death.” (Old man aged 79, P3).

Theme 4: Perpetrators of economic exploitation against the elders of Mandlhakazi Village of Limpopo Province

This study found that economic exploitation was committed by the elders’ own children, neighbours, gangs, friends and even service providers such as shop attendants. In India, Sebastian and Sekher (2010) found that the elders are economically exploited by their own children and relatives. However, Mishra *et al.* (2016) found that in India and other selected states, the economic abuse of the aged was committed by the elders’ own children, relatives, and domestic helpers. Some studies found family members to be economically exploiting the elderly people (Bristowe & Collins, 1998; Morgan & Mason, 2014). While the Das *et al.* (2019) found that the elders are abused by their sons, daughters/sons in law, this study found that the elders are robbed by their children and friends.

“My daughter collects my social grant as I cannot stand in a long queue at the pay station. She takes some of the money to use for her own personal needs and claim that she has given me all the money” (old woman aged 77, P2).

“I was manipulated and deceived by my friend to deposit money on his son’s account as an investment. I was told that the money will mature, and I will gain interests in less than a period of a month which never happened, and the money disappeared. I was told that I forfeited the money because I did not make any deposit after my initial investment” (old man aged 69, P12).

“I have been robbed by my last-born son; my account was always in arrears due to previous purchases which was not done by myself, when my daughter inquired from SASSA officers, they gave her proof of airtime purchases to my son’s cell number. My son has been buying airtime for a long time with my social grant, as he knew my personal information and could access my financial account” (old man aged 81, P5).

Theme 5: Intervention and prevention strategies against the economic victimisation of elderly people

The researchers argue that refining programmes aimed at creating conditions in which the opportunities and 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 will then downgrade economic victimisation against elderly people. Based on the National Crime Prevention Strategy [NCPS] 1996, “crime casts fear into the hearts of South Africans from all walks of life and prevents them from” enjoying life to the fullest (Republic of South Africa, 1996; Fenelly, 2020). Prevention of crimes against the elderly population should be a concerted effort among various stakeholders including, the society, CJS, Department of Social Development, Department of Health, ward counsellors, civic, community leaders, and 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 courts giving appropriate punishment to the perpetrators” (old man aged 87, P15).

5. LIMITATION OF THE STUDY

The study was limited to Mandlhakazi Village in the Limpopo Province, the surrounding villages in the Nwamitwa area, Limpopo Province have not been studied. Data was collected from a small sample, as such the study cannot be generalised to all the elderly population in the Limpopo Province. The expressions of home based-caregivers and caretakers of elderly people, police officers, nurses, social workers, civil members, family member, community members or neighbours were not considered as data was collected directly from the elderly people.

6. CONCLUSION

The researchers conclude that resolving the socio-economic issues, such as drug abuse, gang related activities, improper amusement facilities, unemployment and young offenders among others, could reduce not only the economic victimisation of the elderly; but it could also reduce other crimes committed against them. The literature and the findings in this article show that there is a need to recommend the local law enforcement agencies to introduce by-laws that are strictly looking at the economic victimisations of elderly people and restoring justice by meting out punishment that fits the crime. The justice system should not be ‘soft’ on the perpetrators of this crime, they should serve punishment that is equivalent to the offence. Social structures such as the government, Non-Governmental Organisations (NGOs), families, Department of Social Development (DSD), Community Policing Forum (CPF), Community Safety Forums (CSF), Crime Prevention Through Environmental Design (CPTED) and the citizens must play a role in making the territory safe and secure for the elderly population.

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ORGANISATIONAL BEHAVIOUR AND PUBLIC SERVICE DELIVERY IN AFRICA: ISSUES, CHALLENGES AND THE WAY FORWARD

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ABSTRACT

When reference is made to public administration, what easily comes to mind is organisation. This is perhaps, due to the prominent position it occupies in government and society for every organisation is set up to achieve certain stated goals. Thus, its structures and institutions demand some set of behaviour and attitudes to make them functional especially in this era of Covid-19 pandemic. But in much of Africa, public organisations have not lived up to expectations of both governmentS itself and the people they are supposed to serve. Within the framework of managerialist and the symbolic-interactionist, an eclectic approach, the article analysed the nexus between organisational behaviour and public service delivery in Africa. This study, which is theoretical in nature, drew its arguments mostly from secondary data, which included textbooks, journal publications and internet sources totaling 30 in number. Subsequently, relevant sources of this research were fairly and professionally scrutinised, understood and tested with the available literature for the purpose of the research. It included scan-reading, comprehensive and critical reading and writing down ideas. Authoritative scholarly sources were reviewed, during a desktop study. The purpose was to identify the relevant publications and apply them in the research. It argues that behavioural is more crucial in explaining the poor service delivery of public sector organisations in Africa and until there is a change in the right directions, public service delivery in Africa will continue to suffer crisis of efficiency and effectiveness. It concludes that public organisations should develop code of ethics that should guide the conducts of officers. Such codes of ethics could impact positively on organisations and their employees if well channeled. A good code of ethics should be distributed to all employees, such codes of ethics should get the support of management, and they should aim at addressing ethical challenges faced by certain groups of employees, particularly in known areas of misconducts.

Keywords: Efficiency, effectiveness, organisation, attitude, performance

1. INTRODUCTION

When reference is made to public administration, what easily comes to mind is organisation with special characteristics that are directed at achieving efficiency and effectiveness in the society. This is perhaps, due to the prominent position public administration occupies in government of the public realm and society where they operate. While bureaucracy in general has special characteristics, it nonetheless, shares certain features with organisations as a conceptual variable and generic term. Every organisation is set up to achieve certain stated goals, therefore, its structures and institutions demand some set of behaviour and attitudes to make them functional. Therefore, good and well calculated service delivery is very essential for the smooth running of institutions (Omoruyi, & Chinomona, 2016). This has become imperative considering the ravaging coronavirus (COVID-19) epidemic which have sent both public and private organisations into survival mode. Like every other industry, research and economic activities have been disrupted by restrictions of movement and lockdown of major economies across the world to curb the spread of COVID-19.

In general, bureaucracy should aim at achieving not only private goals and objectives, but should impart positively on the society where it operates. Therefore, the extent to which organisation relates with its environment will go a long way in determining the kind of contribution it can make to it (Turyasingura & Nabaho, 2021; Sharma, Sadana & Kaur, 2012). Thus, academic discourse has come up with a classificatory scheme that emphasises organisations that are either open or closed. Service delivery efforts are driven without assessing approaches that can galvanise behavioural change and collective drive towards service delivery. Organisation should of necessity have rules and regulations that should be binding on those operating it. These rules are supposedly geared towards realising organisational goals, but should not be too rigid or strictly adhered to enable the human factor find its relevance in the scheme of things.

Organisation as a defined collectivity is made up of people who need to interact on a regular basis to realise the goals of the work place. In pursuance of this goal, there are standard methods required for doing things. Also, norms, communication and control techniques are put in place coordinated and these are repeated frequently. What then is public organization? What is their nature and how have they impacted on their environment and the people living within them? How can organisations be managed for better service delivery? These questions form the crux of this article.

2. METHODOLOGY

This study, which is theoretical in nature, drew its arguments mostly from secondary data, which included textbooks, journal publications and internet sources totaling 30 in number. Subsequently, relevant sources of this research were fairly and professionally scrutinised, understood and tested with the available literature for the purpose of the research. It included scan-reading, comprehensive and critical reading and writing down ideas. Authoritative scholarly sources were reviewed, during a desktop study. The purpose was to identify the relevant publications and apply them in the research.

3. CONCEPTUAL AND THEORETICAL INSIGHTS

It is customary for concepts to be analyzed and clarified with a view to setting parameters on which they can be used. These are useful epistemological devices in the social and management sciences. This is because most of these concepts are unstable variables in the sense that they cannot be pinned down to settled terms. One of these concepts is organisation. Organisation can be defined as a system of relationship that combines efforts of group of men and women to achieve specified goals (Chukwu, 2007). Foremost scholars of organisation and administration theories have put forward eye-catching definitions of organisation. Few of them will illuminate better the concept. Dimock and Dimock in (Polinaidu, 2004) defines organisation as “the basic tool by means of which the administrative process is kept operating”. Here organization is seen as a lubricant that keeps the administrative process going. But there are definitions which emphasizes the coordinating aspects of the concept. For example, Urwickin in (Polinaidu, 2004) defines organisation as “determining what activities are necessary to any purpose and arranging them in group which may be assigned to individuals”. Organisations themselves do not transmit into goal achievement. It needs a group of people with the right attitudes and behaviour to carry out organisational activities. Organisational behaviour is therefore, crucial to the realisation of organisational goals.

Bratton (2007) conceives organisational behaviour as involving “the systematic study of attitudes and behaviour of individuals and groups in organisations and provides insight about effectively managing and changing them”. Again, organisational behaviour is best understood as a series of complex active processes in which people participate formally and informally, at several levels including the micro, macro and global in ways shaped by organisational roles and power (Bratton, 2007). Organisations should be seen as places where social behaviours take place which are organised by extant management theory and practices. This social behaviour is conditioned by values, belief, continuity of practices, gender, ethnicity and national employment relations system and practices (Bratton, 2007).

Certain features distinguish work organisation from other forms of organisations such as the family. They are made up of group of people with certain things in common and designed in structure and processes; they have some form of hierarchy. In organisations, there are standards of doing things: communication, control technologies, among others. All these are done in a coordinated way as well as routine exercise in such organisations. People are the basic ingredients of organisation, they enter into relationships with one another and perform task that are directed towards achieving organisational goals (Anning-Dorson, Christian & Nyamekye, 2020). Many of these activities are contained in organisational charts and are said to take place in formal social structure (Akhakpe, 2017). There are other kinds of behaviour that are not contained in organisational chart but are rampant in organisation such as: communication of rumors, sabotage of equipment, arson, red-tapism, among others. These are said to take place in the informal social structures. Both the formal and informal social structures are the building blocks of an organisation.

In Africa, where the democratic culture is yet to take firm root and public officeholder are yet to fully come to terms with the nitty gritty of organisational life, the informal social structures tend to be more potent and valued than the formal ones (Anning-Dorson et.al, 2020; Akhakpe, 2014). This partly

explains why foreign ideas or policies being practiced in organisations are not effective as tools for promoting national development, state building and national integration (Akhakpe, 2014).

Organisations are distinguished by the goals or objectives they set out to accomplish. Profit organisations seek to make profit irrespective of what the conditions are or what other policies exist (Igbokwe-Ibeto & Aremo, 2013). They direct human and material resources towards achieving this goal (Igbokwe-Ibeto, 2011). But there are organisations that are nonprofit making and benevolent. They are oriented towards social services such as: educating students, giving out scholarships, helping the destitute etc. Another basic characteristic of organisations is that they have identifiable boundaries which seek to establish common membership and draws lines between those inside and outside the organisation (Armstrong, 2009). For this reason, some organisations set out guidelines for admission of new entrants into them. Such conditions may be very strident.

The fourth characteristic inherent in the view of organisation given above is that organisation could be connected to the external society and their actions and activities can actually influence the environment where they operate (Akhakpe, 2014; Armstrong, 2009). In developing countries such as Africa, the interface between organisations and their environment has not been very positive in the sense that they do not voluntarily make their presence felt in their host communities in terms of provision of social amenities such as: water, electricity, roads, educational institutions, medical facilities and cottage industries (Akhakpe, 2014). While they may argue that they pay taxes to government, they must find ways of affecting positively the environment they operate in consistently to improve the social conditions of the people living there otherwise known as service delivery.

Public service delivery simply put, is getting public goods and services as expected and as quickly as possible by (recipients) citizens (Fagbemi, 2006). In the view of O'Toole Jr and Meier (2011), service delivery refers to the achievement of public programmes and organisations in terms of output and outcomes that they produce. The above definitions of public service delivery are all encompassing and a close examination of the definitions suggests that public service delivery is the degree and hallmark of excellence in the public service (Igbokwe-Ibeto, 2019).

Theories of Organisational Behaviour

Having seen that behaviour of employees of any organisation is crucial to its development and fulfillment of stated goals, the human factor therefore, cannot be overemphasised. The task of making man in work organisation to produce the highest possible level of efficiency and effectiveness gave birth to the classical theory of administration and management. The classical theory of administration otherwise called the scientific management theory was pioneered by Fredrick W. Taylor. In this theory, “workers were seen as motivated by economic rewards and the organisation was characterised by a clearly defined division of labour with highly specialised personnel and by a distinct hierarchy of authority” (Etzioni, 1964). Being one of the foremost theories of administration, the characteristics of the formal organisation became the blueprint according to which organisations are to be constructed and followed.

Following the dehumanising nature of the scientific management theory, another school of thought emerged that is contrary to the former. It is called the Human Relation Theory. This theory as Etzioni

(1964) put it: Emphasised the emotional unplanned non-rational elements in organisational behaviour. It discovered the significance of friendship and social groupings of workers for the organisation. It also pointed out the importance of leadership in the organisation and emotional communication and participation.

Since the acknowledgement of these imperatives of noneconomic and non-rational factors that could increase workers' satisfaction and service delivery, the issue of moral hazard in formal organisations particularly the public sector remains what explains these developments. Organisational behaviour theorists have come up with some perspectives that may help resolve these issues. Some of these perspectives are discussed below.

The managerialist perspective: This is also known as the structural functional perspective, with its origin in sociology. It conceives of society and organisations within them as systems whose different parts should work together to bring about consensus and stability. The focus of the managerialists is on order, consensus, integration, commitment and performance in which cases, the manager rather than the managed is deemed to have the answer to questions within the organisation. Here, the organisation is seen as an epitome of rational decision making in which the role of the manager is merely that of mobilising employees to achieve formal organisational goals.

This perspective is not without its shortcomings. Its interest is on profit maximisation without taking into consideration other important factors such as: internal power relations, the dialectics of control and the larger dominant political economic paradigm of neo-liberalism (Bratton, 2004). It means that we cannot discontinue the influence of those who control power in the polity.

The radical theoretical perspective: This perspective views work organisation as a place of inequality and exploitation which on its heels produce conflict and change. Karl Marx, a critical thinker of notes, is of the view that industrial capitalism as represented by owners of means of production and employees on the one hand and labours on the other have diametrical opposed interests. The clash of interests arises from attempt of owners of means of production to increase production of workers at minimal cost. This becomes the primary cause of social behaviour.

The symbolic-interactionist perspective: This perspective centers on managers and other employees interacting in work places either on the job or in committees. In either case, they are regarded as social behaviours. This perspective centers on common forms of individual level of social interaction. In this perspective, communication is key and focus tends to be on the role of communication in social behaviour. Individuals engage in social interactions by reaching a shared understanding by the use of language, non-verbal clues, gestures and attitudes (Bratton, 2004). Organisation's controller produces work place activities and stimuli that could be appropriate and shared in order to produce commitment and motivate social action by workers. This can help workers to communicate what they do and what they have accomplished.

The feminist perspective: This perspective comes against the backdrop of what many feminists regards as discrimination against them by their male folk. They argue that there has been male bias in the way and manner researches are centered on men by men. Bratton (2004) notes that "feminist perspective and research have focused on gender differences and how they relate to leadership styles,

interpersonal communications, discrimination and inequality of opportunities in paid work. Feminist perspective not only reveals employment discrimination or the experience of oppression, they often point at limitations on how other aspects of organisational behaviour are examined and understood” It is clear that feminist perspective will for a long time to come be on the offensive of perceived marginalisation and bias against their gender.

From the account given on extant theories of organisational behaviour, it is clear that no particular one may be prioritised over the other as all of them have their strong and low points. The one adopted will be based on the issue to be investigated.

Environment of Organisational Behaviour

This article will explain some models on which the behaviour of people in organisation can be explained. Thus, the integrative model of Bratton (2004) has been identified. The integrative model has four components which are discussed below:

External context: The external environment affects organisational processes through a variety of ways such as: cultural and social influences, ecological pressure, government policies, among others. With globalisation, there is a compelling need to study organisational behaviour in its entirety. Organisations operate in a globalise environment where all parts of the world are interconnected. But what should be of interest to us is how globalization can help in the management of opportunities and constraints confronting them to make strategic choice when the need arises.

The organisational context: The structure of any organisation is patterned along the line of the interaction of individual, groups and organisational control. Here, the term organisational structure refers to the patterned nature of work activities, technology and processes which are continually carried out daily. At least, six variables affect the active relationship of people within formal organisational structure. These are: strategy, structure, work, technology, people and processes (Bratton, 2004).

Every organisation has to put out plans and programmes to achieve goals. Strategy when used in an organisational context refers to the activities of managers directed towards achieving an organisation’s goals (Armstrong, 2009). It could take the form of patterned behaviour consistently deployed to achieve performance targets. What should be prioritised?

Emphasis here is on strategic formulation of policies that will lead to evaluating the interaction of factors in making choices and exhibiting actions that would transform the organisation’s processes (Akhakpe, 2014). It is important to state at this juncture that the behaviour of organisational members at various points in the process of organisational change is critical in understanding organisational processes and changes. It is important to note that organisational behaviour is a body of theory that gives information that can be applied to management problems and to improve organisational effectiveness. This perhaps, put to rest the question of whether or not organisational behaviour can actually lead to high performance in an organisation.

Organisational structure: Organisational structure may be seen as the way in which organisations domesticate work activities and achieve coordination and control of their activities (Kreither, Kinicki

& Buelens, 2002). In the public sphere, a “mechanistic” organisational structure looks like a bureaucracy by virtue of its specialised tasks, hierarchical authority and control system and communication ladder. Consequently, the way and manner individuals and groups interact in such context will be influenced by the pattern of work design.

Technology: In most modern organisations, technology affects the behaviour of individuals, groups and operation processes. The literature is replete with views that knowledge development in the work place is associated with the introduction of new technology (Nisiforou, Poullis & Charalambides, 2012). But there are those who have debunk the positive relationship between Information and Communication Technology (ICT) with organisational behaviour in the area of skill development and learning. For example, research has shown that in Africa, those who acquire computer literacy do not have job to practicalise it (Akhakpe, 2014). Also, it has been empirically proven that “job structures deprive workers of opportunities to use their education and talent” (Igbokwe-Ibeto, Agbodike & Osawe, 2015). This may not be unconnected with the regimentation of work design and job processes (Igbokwe-Ibeto, 2019).

Causes of Unethical behaviour and Practices in Organisation

Perhaps, the most popular concern in contemporary public administration in developing countries is the state of ethics. While government by its formation, is expected to regulate the polity and provide goods and services to the people in the society, how it does this is as important as undertaking these tasks. Not many public administrators take serious the issue of ethics in service to the people. Often, the public complains of unethical conducts of public officials. Yet, these complaints are not timely and decisively dealt with according to extant laws and rules in the statute books, leading to poor policymaking and programme implementation (Akhakpe, 2014; Dorasamy, 2010; Lues, 2007). Consequently, the citizenry has come out worst off, as their social conditions deepen. The article in this section examines the factors responsible for this state of affairs.

To begin with, while many countries in the world do not have to contend with nationality question, in Africa, this is still very much an issue. There are so many issues that are yet to be resolved beginning with an agreement on how the country should be constituted and the basis of its continued existence. Power sharing, resource control and distribution, policymaking and participation of vast majority of African in decision making still remain unresolved (Osawe, 2017). By reason of these issues, many Africans do not feel that the state and its (government) agency are fairly constituted and operated in the interest of all. In this circumstance, the issue of ethics does not come to many as legitimate concern, due to a system that does not operate justly (Akhakpe, 2014).

Flowing from the above, the laws and codes of ethic though present in the statute books, are often not applied strictly to all irrespective of sex, religion, social status, among others. For example, in Nigeria, anti-graft agencies such as the Independent Corrupt Practices Commission (ICPC) and the Economic and Financial Crime Commission (EFCC) have come up. These institutions are expected to complement the traditional administrative watch-dog body like the Ombudsman or Public Complain Commission. Regrettably, many public servants who abuse official duties and positions are either not

prosecuted or given “soft” judgments that is not commensurate with their offences (Igbokwe-Ibeto & Okoye, 2014; Akhakpe, 2001).

The state of the economy is a strong factor that predisposes public officials to indulge in unethical practices. Over the years, the economy in most African countries has failed to guarantee reasonable livelihood for its people. Poor economic growth and development, increasing inflation, low foreign investment, and food crises as currently witness in the management of Covid-19, among other unfavourable development have combined to impoverish the people both in government and outside it. Therefore, to eke out a living, fend for extended family and the quest for materialism have made many public officials to engage in unethical practices in public organisations.

Following from the above, is the issue of poor remuneration and other motivational incentives that can reassure workers of their livelihood and guarantee a future of pleasure after retirement, public wages and salaries are poor and unsustainable. With high cost of living in most African countries, it is unreasonable to expect public employees to remain sincere and honest to their jobs (Olojede, 2001). What is paid in the public sector are not living wages but something like allowances that cannot take the employee to half of the working month (Akhakpe, 2014).

But it would seem that these problems may not be resolved for a long time going by the spate of waste, mismanagement and corruption in the public sector organisations in Africa. A typical example is the management of the current global (Covid-19) pandemic by African countries, where people are locked down for weeks with little or no support from the government. These problems have pervaded the whole of the public service to the extent that even efforts to reform the public service are resisted by powerful public servants to the embarrassment of successive governments who become almost helpless. Public sector reforms have failed to tackle corruption, reduce waste and mismanagement through appropriate and effective ethical structures (Igbokwe-Ibeto & Okoye, 2014; Akhakpe, 2001). Thus, ethical codes in the public service are like empty cymbals that make so much noise but no meaning.

The materialistic culture in the society affects negatively, the quest for sound ethical practices in public service. The average African is inclined towards materialism that in turn propels them towards primitive accumulation of wealth and other forms of personal aggrandisement. With the culture of throwing parties, marrying many wives, and buying exotic cars, houses and other paraphernalia of wealth, there is no way sound ethical climate in public service can be achieved and maintained in Africa.

The poverty of leadership is therefore, pervasive in the public realm of most African countries (Achebe, 1983). Every great nations of the world at one point or the other in their history had the privilege of having a dedicated patriotic and nationalistic leader that set the basis for growth and development of the nation-state. The deficit of this type of leaders in Africa is the bane of the continent (Achebe, 1983). Ever too often, the continent throws up leaders that are selfish, intellectually inept, morally bankrupt, politically and economically naive. They threw their countries into debt and play ethno-religious politics in order to remain in power (Akhakpe, 2014). They often lack vision and mission for their country.

Also, the administrative system in the public sphere in Africa lack experienced and skillful financial managers who can keep the book and not cook the book. Where they are available, they prefer to work in the private sector or go abroad to seek for greener pasture. These issues couple with the poor remuneration of staff in the public sector, has brought about poor resource management and waste in the public service (Igbokwe-Ibeto & Aremo, 2013). In what follows, the article shall briefly examine some steps for improving ethics and organisational behaviour at workplace.

Organisational Behaviour and Service Delivery: The Way Forward

Improving the state of ethics in any organisation is a task worth pursuing because ethical climate put the issue of ethics continually in the workers and management minds thereby reducing the chances of unethical behaviour.

In the first place, it is important that managers should be good example to their subordinates by first showing how ethical behaviour can be carried out. One must be a good example of what he/she wants. It is difficult to give what one does not have; a manager's behaviour can send a clear signal to others about the relevance of ethical conduct or misconduct. As role models, managers have a lot to do to promote good habit and behaviour in a workplace.

Screen potential employees. This is in theory what should be the case with regard to recruitment, selection and placement of employees. Conventional practices in large and established organisations demand that those in charge of recruitment and selection check references, credentials and other information in an applicant's curriculum vitae (Igbokwe-Ibeto & Agbodike, 2015). In the course of interviewing applicants for jobs, panel of interviewers can device means of detecting applicants with bad habits and character (Igbokwe-Ibeto, 2019). Integrity test could be another way to screen out those inclined towards fraud. In African public sector, this kind of exercise may not be possible because of the affective relationship that exists in African communal societies (Akhakpe, 2014; Igbokwe-Ibeto & Akhakpe, 2012; Bartel, Freeman, Ichniowski & Kleiner, 2011). Favouritism and nepotism are also rampant in deciding who to be given certain job or post in public offices in Africa (Igbokwe-Ibeto & Agbodike, 2015). Where favouritism and nepotism is the hallmark of recruitment, the quality of the human resources becomes secondary.

Organisations should develop code of ethics that should guide the conducts of public officers. Such codes of ethics could impact positively on organisations and their employees if well channeled. A good code of ethics should be distributed to all employees, such codes of ethics should get the support of management, and they should aim at addressing ethical challenges faced by certain groups of employees, particularly in known areas of misconducts. Also, ethical training should be conducted for employees that are targeted at specific areas of concerns. Some of these issues can be addressed during orientation programmes, workshops and seminars. Again, this depends on the importance workers place on such training. In African public sector organisations, most workers give little premium to training.

Ethical behaviours in workplace should not be treated as a stop gap measure. Ethical behaviour should be reinforced and repeated. This is certainly better than behaviour that is not repeated. In African public service, ethical behaviours are sometimes punished while unethical ones are rewarded

(Akhakpe, 2014, Olojede, 2001). In amoral society, no one seeks public office to serve the public rather they seek such offices to pursue personal interests.

Organisations should put in place mechanisms to deal with ethics. Codes of ethics and their implementation should be prioritised as a way of life, not one stop gap measures that are raised episodically. Organisations should have as one of its self-assessment programmes ethical audit to ascertain the level an organisation is adhering to its laid down ethical standards. However, most organisations in the developing countries assess their impact in the industry and the society within which they do business, by the level of profit even when their clientele are crying over poor service delivery.

4. CONCLUSION

This article has examined the nexus between organisational behaviour and public service delivery with an attempt of clarifying the intellectual cobweb surrounding the unethical conducts prevalent in the public service. In addition, searchlight was also beamed on the theoretical framework for a better understanding of the issues under analysis. Thus, the managerialist perspective, radical perspective, symbolic-interactionist perspective and feminist perspective have been examined as postulated by scholars. It contends that organisations share certain common characteristics. But the bureaucracy as special form of organisation is rationally structured to optimally deliver quality services to members of the public. But in Africa, formal bureaucracy has not lived up to expectations of both governments itself and the people they are supposed to serve. This article argues that, behavioural is more crucial in explaining this failure and until there is a change in the right directions, public service delivery in Africa will continue to suffer crisis of efficiency and effectiveness.

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THE LINGUISTIC AND SOCIO-LINGUISTIC BARRIERS AND EXPERIENCES OF AFRICAN FRANCOPHONE STUDENTS AT A UNIVERSITY OF TECHNOLOGY

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ABSTRACT

There is a growing trend among African Francophone students whose medium of instruction (MOI) at school was French to further their studies at South African tertiary institutions where English is the medium of instruction. In addition to a lack of English proficiency, these students encounter a number of obstacles which have a negative impact on their academic success. This article explores the linguistic and socio-linguistic barriers and experiences of Francophone students at a South African university of technology. A qualitative research method was used as it allowed the researchers to explore questions about experience and perspective. One-on-one, semi-structured interviews were conducted with eight students from the Democratic Republic of the Congo and from Gabon who were studying at a university of technology (UoT) in South Africa. Thematic analysis identified four themes regarding the linguistic and socio-linguistic barriers and experiences of Francophone students studying at the UoT under investigation, namely: 1) the difficulty of studying at an English-medium tertiary institution; 2) socio-cultural differences that exist between Francophone and South African students; 3) feelings of isolation and a fear of xenophobia; and 4) students' motivation to succeed despite negative experiences and challenges. A structured English language course that addresses basic and academic English proficiency is needed before students commence their education in South Africa. The data from this study can be used by tertiary institutions to ensure a better understanding of the difficulties that African Francophone students experience with regards to studying in another country where English is the MOI. Such an understanding can be used to find ways to support and create a better academic experience for these students.

Keywords: University of technology (UoT), African Francophone students, medium of instruction (MOI), linguistic and socio-linguistic barriers and experiences, socio-cultural differences

1. INTRODUCTION

The internationalisation of higher education has become a global trend. Encompassing the elements of both globalisation and internationalisation, it can be defined as the process of incorporating an international, intercultural or global aspect into the purpose, roles, and provision of tertiary education. Internationalisation in this sense refers to the policies and programmes that higher education

institutions (HEIs) and governments implement in a reaction to globalisation (De Wit, 2011). The phenomenon may be ascribed to students wanting to experience diverse cultures, connect with people from other countries, become global citizens and advance their careers (Forsey, Broomhall & Davis, 2011). Other motivations include the prestige of acquiring research knowledge and quality education at a leading tertiary institution (Tati, 2010). The internationalisation of higher education is also called a migration industry with students continuously entering and exiting the system. Through studying abroad, students want to experience independence, become more proficient in other languages, and expand their vision for the future (Serpa, Caldera, Serpa, Gonçalves, Montenegro & Rego, 2020:46).

HEIs perceive internationalisation as being of strategic importance because of globalisation and to ensure that they stay relevant in the market. It has become prestigious for universities to have an international student population, as they are seen as institutions of excellence with high rankings in global university standings. As a result of their high rankings, such institutions are successful in the recruitment of international students, obtaining funding for research and international research cohorts (Wihlborg & Robson, 2017:1).

International students play a positive role in changing the face of higher education. They contribute to research and create diversity in HEIs as well as a consciousness and appreciation for other cultures. What is more, international students financially benefit HEIs as they usually have to pay the full tuition fee (Lee & Rice, 2007).

HEIs in certain African countries, such as the Democratic Republic of the Congo (DRC), Zimbabwe and Angola, have been negatively affected by unstable governments and civil wars. Kwaramba (2012) remarks that South Africa is deemed one of the top 10 destinations for foreign students from Africa who wish to study abroad. South African universities, in the African context, are believed to provide first-rate qualifications because of competent lecturers and functional infrastructure (Kwaramba, 2012). Consequently, HEIs in South Africa have experienced an increasing number of enrolments of students from other countries.

This has also been the case at the university of technology (UoT) where the study was conducted. In 2020, of the approximately 20 000 enrolments, 1 058 were by African Francophone students. The majority of these students came from the DRC, followed by Gabon, Cameroon, and the Ivory Coast. The medium of instruction (MOI) of the students while they were at school was mostly French. At the UoT in South Africa, course content is in English, and lectures are officially conducted in English. When international students enrol at HEIs in South Africa, they experience “submersion education” (Piller, 2016:105). This means that they have to master the academic material at the same time as they learn a new language, generally without language support. Because the English language proficiency of submersion education students is usually below the required standard, as well as below that of South African students, international students often struggle with their studies in English. This has a negative impact on their academic success.

Pineteh and Mulu (2016) have found that many HEIs do not understand and meet the needs of international students. The contributions of such students are also not appreciated. On this point, Pineteh and Mulu advise that HEIs take into consideration the challenges – both academic and social

– that confront international students. Because HEIs are largely accountable for the academic accomplishment of international students, the institutions should create an environment where students feel welcome and supported.

Although research has been done about the linguistic and socio-linguistic barriers that international students studying in South Africa experience (Pineteh & Mulu, 2016; Ralarala, Pineteh & Mchiza, 2016; Tati, 2010), there are no studies about the specific linguistic and socio-linguistic experiences and barriers of African Francophone students at this institution. The aim of this paper is to address this gap. The research question posed is: “What are the linguistic and socio-linguistic experiences and barriers of African Francophone students who study in English at a specific UoT in South Africa?” It is expected that the data in the study can be used by the UoT and other HEIs in South Africa where African Francophone students are enrolled to create a better understanding of the challenges such students face. Thereafter, recommendations can be made to HEIs on how to support international students so as to create a better and more successful academic experience for these students.

2. METHODOLOGY

A qualitative research method was deemed fitting for a study that concerns itself with the thoughts, experiences, beliefs, and motivations of participants. Qualitative research is also best suited to address the research question regarding the linguistic and socio-linguistic barriers and experiences of African Francophone students.

2.1 Recruitment of the research participants

In order to collect the data to answer the research question, African Francophone students whose first language was French and who were studying in South Africa at a specific UoT were recruited. The students were enrolled for different degrees and diplomas at the institution. As the participants for this study had to comply with the criteria listed here, purposive sampling was used as a sampling technique. Purposive sampling is a suitable technique when researchers have to study a specific cultural domain or sub-group and participants are deliberately chosen for their qualities (Tongco, 2007).

The participants of the study were identified by means of a student language background questionnaire. The questionnaire was given to all students who attended a compulsory subject at the UoT. The questionnaire was designed to determine the linguistic repertoire of students. It consisted of general questions pertaining to the students’ mother tongue, language of teaching and learning at school, and other languages in their repertoire. The questionnaire functioned as a recruitment tool because it indicated which students were from African Francophone countries and had French as the MOI at school.

Data was collected through individual interviews. Potential participants were approached and invited to take part in the study via e-mail because social distancing restrictions caused by the Covid-19 pandemic prevented a personal approach. Informed consent forms in both English and French accompanied the e-mail invitation. A total of 12 students were recruited, but only eight participants were available when the interviews were conducted.

2.2 Background of the research participants

As stated in the introduction, an increasing number of African Francophone students with French as the MOI at school furthered their tertiary studies at South African HEIs where English is the MOI. The English language proficiency of the majority of these students was weak, thus impacting negatively on their academic success. Of the 12 participants recruited for the study, 11 were from the DRC and one from Gabon. The official language in both the DRC and Gabon is French, with French being the MOI in primary and secondary school. The linguistic repertoires of the participants from the DRC included French, Swahili, Lingala, Chiluba and English, while the linguistic repertoires of the participant from Gabon comprised French, Punu, Guisir and English.

2.3 Data collection

Data was collected through individual interviews. Due to the Covid-19 pandemic and social distancing protocols, individual interviews were conducted via MS Teams and Zoom, depending on the student's preference. Semi-structured interview questions centred on the linguistic and socio-linguistic experiences and barriers of participants while studying in South Africa. Data relating to the linguistic repertoires of these students was also collected, but falls outside the scope of this article and was therefore excluded. Interviews were recorded and transcribed verbatim.

2.4 Data analysis

As the research is sociolinguistic in nature, data was thematically analysed. Thematic research analysis is a method that identifies themes (patterns of meaning) and recognises recurring patterns, topics, and ideas through the systematic organisation of data while focusing on the meaning in the dataset (Braun & Clarke, 2012). Braun and Clarke's (2012) six-step approach was used to analyse the themes. The six steps comprise: 1) becoming familiar with the data; 2) generating initial codes; 3) searching for themes; 4) reviewing potential themes; 5) defining and naming themes; and 6) producing the report. After the researchers familiarised themselves with the data, codes were generated. Coding was done through a manual process on a hard copy of the data. This was done by identifying a code name and using colour to highlight the part of the text related to it. After the initial codes were generated, they were grouped into categories and analysed for potential themes. The emerging themes were then created, named, and defined, and subjected to an in-depth analysis. An inductive approach was employed in the analysis of the data. This means that the codes and themes originated from the content of the data and not from any theoretical frameworks or concepts brought to the data by the researchers (Braun & Clarke, 2012). Because the approach was inductive, earlier theoretical frameworks did not dictate the research project (Hawkins, 2018). To limit bias in the coding process as far as possible, both researchers worked through the data and coded individually. The two individual coding sets were then compared, yielding a high level of similarity between the two coding sets.

2.5 Ethical considerations

The researchers obtained ethical clearance to conduct the study from the research ethics committee of the UOT where the participants were enrolled. The research was done in compliance with the

university’s policy on research ethics. Participation was voluntary: no participants were compelled to participate or made to feel that they had to. During the recruitment phase, language background questionnaires were handed out to all students in one of the compulsory subjects at the institution. The rationale for the language background questionnaire was explained to the students. The researchers emphasised that no student would be penalised for not completing the questionnaire. Potential participants were assured that participation was voluntary and that they were free to withdraw from the study at any time with no repercussions. There were also no risks or discomfort associated with participation. All of the participants were assigned pseudonyms to safeguard their identity and ensure anonymity. Random sampling increased credibility.

3. RESULTS

After a thematic analysis of the data was carried out, four themes and seven related sub-themes regarding the linguistic and socio-linguistic barriers and experiences of African Francophone students studying at the UoT emerged. These are presented in Table 1 below.

Table 1: Emerged themes and related sub-themes

| Themes | Sub-themes |
|--|---|
| 3.1 The difficulty of studying at an English-medium tertiary institution | 3.1.1 English speech rate |
| | 3.1.2 Code-switching by lecturers |
| | 3.1.3 Code-switching by students |
| | 3.1.4 Group work |
| | 3.1.5 Studying in English |
| | 3.1.6 Writing tests and examinations in English |
| | 3.1.7 Academic English |
| 3.2 Socio-cultural differences | |
| 3.3 Feelings of isolation and the fear of xenophobia | |
| 3.4 Motivation to succeed | |

Each theme is described in more detail below, supported by verbatim quotes to ensure authenticity.

3.1 Theme 1: The difficulty of studying at an English-medium tertiary institution

All of the participants reported that they found it difficult to pursue their tertiary studies in English in South Africa. The seven related sub-themes that emerged in Theme 1 are elaborated on below.

3.1.1 Sub-theme 1.1: English speech rate

The participants could not always follow English speakers, mostly because of the rate at which they spoke. During lectures, the participants tried to translate what was being said. Because translation is time-consuming, they missed parts of the message. It appeared that the lecturers assumed that all of the students could speak and understand English or one of the native South African languages. Furthermore, Francophone students feared that South African students would ridicule them when they attempted to speak English.

3.1.2 Sub-theme 1.2: Code-switching by lecturers

Secondly, although the official MOI at the UoT is English, the participants relayed that the lecturers code-switched between English and one of the native South African languages such as Sotho. While this helped South African students to understand the learning material better, it caused confusion and frustration on the part of the African Francophone students. In this regard, one participant remarked:

“Sometimes the lecturer will say something in another language [South African indigenous language], blah, blah, blah, and people will start laughing and you are lost... but sometimes also the lecturer is saying something very important, but I can’t understand because it is in that language”. (P9)

3.1.3 Sub-theme 1.3: Code-switching by students

A third problem is that South African students are often not fluent in English and then communicate with one another in their native tongue. When African Francophone students attempted to speak English to their South African counterparts, they were often ignored. This led to feelings of exclusion, as expressed in the excerpt below:

“...when you are with people in your class, it won’t be easy. Not all of them want to help you. Most of them will just be discussing in the mother tongue. Some of them are not able to speak good English. Sometimes, we think everyone can speak English, but not all of them can speak good”. (P6)

3.1.4 Sub-theme 1.4: Group work

Closely related to the third problem is that Francophone students found it challenging to work in groups in class or when they had to do assessments. South African students in the group would often communicate with one another in the native South African languages and disregarded requests to use English. In this way Francophone students were isolated and could not contribute.

3.1.5 Sub-theme 1.5: Studying in English

A fifth challenge is the time it took the participants to study in English. They had to use a dictionary to translate words and make sense of the text. Because of the slower pace at which they studied, the participants could not keep up with the South African students. This is made clear by the following excerpt:

“... and also, when we are studying, we take longer to read the book. Not because we are stupid but because we struggle with the language. Where other students read 30 minutes, I will take one hour because it takes longer to understand”. (P9)

3.1.6 Sub-theme 1.6: Writing tests and examinations in English

It did not only take longer for Francophone students to prepare for assessments, but also to write assessments. They had to read a paper that was set in English, understand questions, and find the correct words to answer the questions. As a rule, the participants tried to translate the paper first. They had to do this without dictionaries, as dictionaries were not allowed in the test venues.

The participants presumed that they failed certain subjects on account of their lack of English proficiency. Subjects with much reading were considered more difficult because the students had to memorise the words and phrases that they may have to use in the test or examination. Subjects that tested understanding, such as mathematics, were described as “easier”. One participant’s struggle with writing tests and examinations in English is aptly captured in the following excerpt:

“... I must work hard the whole year. I make enough, ahm, enough time to memorise and learn the words, and when I don’t pass, I just have to do it again”. (P7)

3.1.7 Sub-theme 1.7: Academic English

A final obstacle to studying in English is the difference between English used in an academic context and English taught at South African language schools. While language schools prepare learners for everyday situations, such as greeting people or requesting directions, they do not equip students with the necessary academic English language skills. The following example illustrates this:

“... when I came here I was doing English [at the language school] and then, when I went to university, it was totally different”. (P2)

3.2 Theme 2: Socio-cultural differences

In addition to the difficulties experienced when studying at an English-medium tertiary institution, the participants remarked on the socio-cultural differences between themselves and the South African students. These prevented them from adapting. Examples listed included South African students’ behaviour in class, their perceived disrespect for lecturers and their surroundings (littering), the volume at which they spoke, their avoidance of Francophone students, and also the way in which they dressed. The following excerpts support the socio-cultural differences observed by the participants:

“Mmm, there is noise, noise here especially on campus. That is difficult for me. And people are just different from our country [laugh] ... They don’t like to spend time with foreigners. Maybe it’s just their culture, maybe it’s also in my country we are used to Congolese culture which we have more solidarity, mmm it’s maybe different”. (P7)

“I don’t feel like I can be part of their culture. I don’t find I have a relationship with them ... I don’t like the way people here do things. I will not do things that some of these students do ...

Culturally, I am different from them ... it's not the foreigners who give lecturers attitude ..."
(P10)

Because Francophone students could not relate to the culture of the South African students, and vice versa, they kept to themselves.

3.3 Theme 3: Feelings of isolation and the fear of xenophobia

The third theme identified is feelings of isolation and the fear of xenophobia. The participants felt unwelcome in South Africa, because, in their opinion, South African students tended to communicate and socialise only with other South African students. When South African students did speak to Francophone students, it was mostly for academic reasons. The participants had hoped that they would fit in after some time, but this proved not to be the case. In the following example a participant is told that international students are not desired in South Africa.

"... and she say[s] no, you have to go back to your country. You are coming here to steal our jobs ... and we are struggling with the works". (P5)

Another reason for the participants' sense of exclusion was that they could not speak one of the South African languages. The participants reported that when South African students realised that they were not from South Africa, their attitude toward them changed. Although the UoT officially promotes a policy of tolerance and mutual respect, the students from other countries were derided when they spoke in class. Not only did they feel disconnected from South African students, but they were also concerned about xenophobia. Hence, they avoided interacting with South Africans and devoted themselves to their studies.

3.4 Theme 4: Motivation to succeed

Regardless of the challenges faced on campus, the participants were resolved to succeed academically and obtain a qualification. They motivated themselves by visualising returning to their home country with a South African qualification, as the following student does when imagining his/her future career prospects:

"You have to be strong in your head when you come here to study because it's not easy. Many students from [the] DRC just want to go back home because it is difficult ... When I struggle or if someone is not nice, I think about my goal, why I am here. I think about my future, because when I have the qualification, I can do anything". (P9)

Francophone students devised strategies to overcome the barriers they encountered. While two-thirds of the participants did not ask their lecturers to clarify subject content, they did consult someone from their support network who was academically more advanced or understood English better to translate and explain the work to them.

To improve their English proficiency, the students watched English films and listened to music with English lyrics. Fifty percent of the participants pointed out that they spoke English as much as possible with one another, despite making mistakes, while the other half preferred not to converse in

English. The students, though, were advised by African Francophone students who had been in South Africa for a longer time to not translate everything into French but to use English as much as possible.

To overcome the obstacles posed by group work, Francophone students requested their lecturer to move them to a group with other Francophone students. If this was not possible, they volunteered to type and submit the document after the information had been gathered. This meant that they did not have to be involved in group discussions, but could still make a contribution and receive a mark for the assignment.

4. DISCUSSION

The data reveals that Francophone students who participated in the current study experienced difficulties when studying at a tertiary institution where the MOI is English. Challenges included the speed at which South Africans spoke English and code-switching by lecturers which hindered their understanding of the lecture content. South African students also code-switched, and this placed Francophone students at a disadvantage when working in groups with them. A fifth impediment was the time it took to study in English, translate words, and memorise some of these words. It also took time to read a paper in English, understand questions, and find the correct words to answer the questions. Finally, Francophone students felt that language schools in South Africa did not adequately prepare them to function in an academic environment where English was the MOI. They expressed the need for a structured language course that would bridge the gap between social and academic English. Diagnostic admission tests for foreign students could also be administered to determine the level of language support the students required.

Socio-cultural differences between African Francophone and South African students were presented as the reason why Francophone students kept to themselves and made friends almost exclusively with other international students. These differences included South African students' behaviour in class and toward lecturers, their "loudness", littering, and the way that they dressed. Francophone students, moreover, were under the impression that South African students did not want them in South Africa and were prejudiced toward them. This is in line with research done by Pineteh and Mulu (2016), Weber (2016), and Ralarala et al., (2016) who discovered tension, hostility, and discrimination in the association between South African and Francophone students.

Regardless of the challenges and barriers they came across while studying in South Africa, African Francophone students were resilient and motivated to complete their qualifications and achieve success. When faced with challenges, they envisaged a better future waiting for them after obtaining their qualifications. Francophone students established networks to support and motivate one another. They devised strategies to overcome the obstacles of studying in English and participate in group assessments.

5. CONCLUSION

African Francophone students who study in South Africa play an important role in the internationalisation of higher education. Nevertheless, the students who participated in this study reported a number of linguistic and socio-linguistic barriers they had to overcome. To create a better

academic and social experience for these students, institutions should sensitise lecturers and students to the challenges Francophone students experience and the socio-cultural differences that exist among people from different countries. Institutions should encourage students to report cases of prejudice, intimidation, and xenophobia, and create support systems for the students. Finally, institutions can perform diagnostic tests to establish the level of language support that international students need and offer fit-for-purpose academic English courses that will prepare them to pursue their studies at an English-medium institution in South Africa and achieve success.

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EFFECTS OF COMMUNITY BASED ORGANIZATION PROGRAMMES ON POVERTY ERADICATION IN THE EASTERN CAPE, SOUTH AFRICA.

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ABSTRACT

Despite the implementation of Expanded Public Works Programme (EPWP) by South African government to eradicate poverty in rural areas, children, the unemployed and individuals living with Human Immunodeficiency Virus (HIV) continue to struggle accessing food parcels from the government. Guided by Community Development Theory and Empowerment Theory, this study explored the effects of Community Based Organisations Programmes on poverty eradication in Idutywa, Eastern Cape Province. A mixed-method research approach was followed. Of the Ninety-Six (96) respondents who gave their informed consent to complete the closed-ended questionnaires, only six (6) further volunteered to share their experiences during the Focus Group Discussion (FGDs) as participants. To reduce bias as the study is the mixed method, the researchers ensured that they distribute to 96 participants and respondents in terms of qualitative and quantitative approaches. Participants and respondents were represented by ward councillors, community development practitioner, Public Work official, government officials and members from the Non-Governmental Organisations (NGOs) and Social Workers. None of the participants withdrew from the study. Tesch's data analysis method assisted in identification of qualitative themes while the quantitative analysis was done through the application of the Statistical Package for Social Science (SPSS). The descriptive statistics showed that 67% of the respondents benefited from the Community Based Organizations (CBOs). A further 34.4% indicated that the community based programmes were beneficial for early childhood while 15.6 % indicated that the HIV/AIDS programme is supported in fighting poverty. The FGDs participants cited satisfaction for the officials who promoted skill-development although it takes time for the indigent families' applications for food-parcels to be approved. A collaborative approach among stakeholders emerged as pivotal in poverty eradication although not completely. In this regard, there is a need for the CBOs to be encouraged to identify diverse sources of support.

KEYWORDS: Community-Based Organization, Empowerment, Government, Programmes, Poverty eradication.

1. INTRODUCTION

In the former homelands of South Africa (Transkei, Ciskei, Qwa-qwa and Natal), poverty has always been consistently high among blacks who suffered during apartheid as majority is still unemployed, and child-headed families are characterized by teenage motherhood owing to orphan hood as a result of HIV and single parenthood, respectively (Kheswa, 2017; World Bank Group, 2018). Poverty is defined as the failure to achieve basic competences such as maintaining decent healthy life, affordability in terms of education and possession of skills to participate in economic and social life (Baghebo & Emmanuel, 2015). It has exposed many households in Southern Africa to severe structural disadvantages that raise risks of ill health, disrupted education and mortality as unemployment rate continues to escalate (Kheswa, 2020 and Sherr, Yakubovich, Skeen, Tomlinson, Cluver, Roberts & Macedo, 2020). Despite the guiding national policies such as the Reconstruction and Development Programme enacted in 1994, the Integrated Food Security Strategy in 2012 and later the National Policy on Food and Nutrition Security, most South African people living in rural areas experience poverty (Misselhorn & Hendriks, 2017).

The recent Statistics South Africa's General Household Survey published in 2019 showed that social grants were the second-most important source of income for households in the country after salaries with 45.2% of households depending on the grants as compared to 64.8% of households receiving salaries, remittances, pensions, it is clear that more than 17 million South Africans live in poverty (Mantzaris & Pillay, 2020). Taking into account the COVID-19 pandemic that negatively impacted on the South African economy and job losses between 2.2 and 2.8 million among adults from February to April 2020 (Statistics South Africa, 2020), studies suggest that the government should demonstrate social accountability to the community based- projects in the form of financial support to protect people from starvation and opportunistic infections such as Tuberculosis (TB) and HIV (Tirivanhu, 2020). By social accountability, Tirivanhu (2020) emphasizes that it is the state's responsibility to exercise social justice for all so that each individual is entitled to rights to equal opportunity, fairness and engagement in various freedoms including educational, economic, social and moral. In this regard, the local government institutions should be active in service delivery for the community based organisations to equip people especially in rural areas with skills for self-reliance, mutual support, building up of neighbourhood integration (Bvuma & Joseph, 2019), and promoting community health care (Kheswa, 2020). Conversely, Munzhedzi (2020) established that when municipal officials have squandered money intended for poverty eradication in the communities, CBOs struggle in their endeavour to enable community members to be empowered. Supporting this assertion, Merten (2019) found that 14 South African unscrupulous municipal councils invested 1.5 million rands in the Venda Building Society (VBS) Mutual Bank despite being banned, according to Municipal Finance Management Act (MFMA). These are monies which were allocated for CBO service delivery. But since the bank collapsed, the municipalities automatically failed in executing community projects. Against this background, this study attempts to answer the following questions; (i) What are challenges and the effects of the CBOs related to poverty eradication in Idutywa, Eastern Cape? and (ii) To what extent are the CBOs fight poverty among people living with HIV in Idutywa, Eastern Cape?

2. RESEARCH OBJECTIVES

This study sheds light on two fundamental debate by:

- Identifying the challenges and effects related to poverty eradication by CBOs in Idutywa, Eastern Cape Province.
- Determining statistically the extent of the involvement of the CBOs in fighting poverty among people living with HIV.

3. LITERATURE REVIEW

Community Based Organizations

The CBOs are small, informal organizations which register with an official public agency to improve service delivery and develop the communities where they are located. Amongst other roles, CBOs serve as platforms and instruments of community empowerment (Chombo, 2020). They operate within the locality to ensure sustainability in the areas of education, health, social welfare for the disadvantaged. In South Africa, the CBOs are governed and underpinned by policies such as South Africa's Mental Health Care Act- (No 17 of 2002), which provides for the development of community-based mental health services and support systems that promote users' recovery and reintegration into society (Mental Health and Poverty Project, 2008).

Challenges faced by Community Based Organizations in South Africa

Some of the challenges facing the CBOs are numerous and hindered by lack funds, training of skills relevant to the projects, high level of illiteracy among project beneficiaries, lack of infrastructure, equipment and fraudulent use of projects funds (Zona, Minoja & Coda, 2013). The However, within OR Tambo, the King Sabato Dalindyebo (KSD) in the Eastern Cape, the Eastern Cape Regional Training Centre coordinated training for the Community Health Workers (CHWs) to undertake collaborative community based interventions such as conducting structured household assessments to identify health needs and prevent illnesses (Austin-Evelyn, Rabkin, Macheka, Mutiti, Mwansa-Kambafwile, Dlamini & El-Sadr, 2017). Naidoo and Gomez (2020) argue that when the donors contribute to the establishments of the CBOs they expect transparency and accountability regarding the disbursement of funds and whether these are expended for designated purpose. Research, in this perspective, provides evidence that even in the United States, from 2010 to 2015, the fraud cases of CBOs increased by 20 % and that created a deficit of \$ 20 billion for the government (Kummar, Singh & Best, 2015).

Effectiveness of Community-Based Organizations

The need for community based organizations cannot be overemphasized because in Zambia, malnutrition is the number one serious problem as children below 14 years live in poverty, as back as 2015, their plight was exacerbated by 85 000 of HIV/AIDS infections and exponential rise in TB, according to the estimates by Joint United Nations Programme on HIV/AIDS (UNAIDS) [Moramarco, Amerio, Kasengele Chipoma, Nielsen-Saines, Palombi & Buonomo, 2018]. Because the role of community-based organizations in advancing universal health coverage and meeting the

targets of the 2030 Agenda for Sustainable Development has received renewed recognition from major global initiatives (Lahariya, Roy, Shukla, Chatterjee, De Graeve, Jhalani & Bekedam, 2020), amplifying citizen voices, non-discrimination towards people living with HIV, equality and inclusiveness become significant principles that every country should adhere to (Tirivanhu (2020). For example, In India, polio elimination among children was effectively addressed through the active participation of faith based organisations and NGOs (Lahariya et al, 2020). This initiative was supported by Social Mobilization Network of the United Nations International Children's Emergency Fund [UNICEF] (Siddique, Singh & Trivedi, 2016). In the Western Cape, South Africa, Smith, Davey, Green, Cornell and Bekker (2021) found that CBOs play a significant role in mobilizing people living with HIV to adhere to antiretroviral treatment (ART), screen for hypertension and diabetes while protecting them from prejudiced nurses by bringing mobile clinics to their communities. In the same country, in a quantitative study conducted in Olieven township next to Centurion, Gauteng Province, a large proportion of participants living below poverty line reported home visitations by CBOs' volunteers eliminating transportation costs since they only survive on social grants.

It is for this reason that even in Zimbabwe, participation of the communities and local stakeholders had to be identified to enable a comprehensive HIV prevention and support for people living with chronic illnesses (Degroote, Vogelaers & Vandijck, 2014). Thus, Paudel and Barral (2015) encourage community participation for people living in poor communities such as in rural areas where transportation, employment opportunities and clinics are

inaccessible because poor health outcomes are linked with inadequate psychosocial support and low quality life.

4. THEORETICAL FRAMEWORK

Two theories inform this study, namely; (i) Community Development Theory and (ii) Empowerment Theory.

Community development theory

This theory was developed by Kazuko Tsurumi (1996). It was used to guides this study for its relevance in the field of sociology, social work and community psychology. It is anchored on the perspective of continuity through transformation that is driven by individuals within a particular society. It posits that community members should self-initiate the reduction of irrational burdens such as inequality or predicaments that the community may not be responsible for but affected by, owing to the social regime or system (Tsurumi, 1996). This initiative could emerge from the individuals within the communities following a realization to solve challenges such as natural disaster (Hayashi & Walls, 2019). In this study, the researchers employed this theory because in Idutywa, Eastern Cape, South Africa, where study took place, an alarming number of people live in poverty and afflicted by HIV.

Empowerment theory

The Empowerment Theory is embedded on the understanding the process and consequences of efforts to exert control and power over decisions that affect one's life, organizational functioning, and the quality of community (Zimmerman, 2000). It believes on promotion of mutuality, strength- building, recognising diversity and learning how to increase power in interpersonal and political context. It advocates leadership training, skill development and involvement in community activities (Francis-East & Roll, 2015).

5. RESEARCH DESIGN AND METHODOLOGY

A mixed-method approach was used as it allows collection of data from the participants and respondents by means of closed-ended questionnaires and FGDs. The choice of a quantitative research is that the items were written in statement form, easy for comprehension, and the results were interpreted easily after being analysed by means of (SPSS version 26.0) by a qualified statistician. In the first phase of data collection, a sample of volunteers of ninety participants (90) represented a population (people from Idutywa, Mbashe village), completed a survey on 5 point-Likert scale as suggested by Creswell (2013). The questionnaire was divided into two sections (Section A for biographical information and Section B for addressing the phenomena). A population refers to a group of individuals sharing one or more characteristics from which data can be analysed (Creswell, 2013). Owing to the nature of the study (community-based), the researchers focused on the people who benefit from non-profit organisations whose home language is *IsiXhosa*. Ethical principles were adhered to as the prior the study, a permission was granted by the chief of the village and government sectors. Rubin and Babbie (2011) on the other hand, recommend FGDs (Adopted qualitatively) offer number of advantages despite being time-consuming, as they enable the participants to share their own experiences in a natural setting without being interrupted. Thus, the researchers, in the second phase, only six participants were purposively selected and were comprised of a ward councillor, community development practitioner, Public Work official, government official and one member from NGOs and a Social Worker. To achieve anonymity and confidentiality, pseudonyms were preferred as the participants were named, P1, P2, P3, P4, P5 and P6. After data collection, one of the researchers, who is a qualified social worker, provided a debriefing. Debriefing is important following data collection as it entails counselling to deal with suppressed emotions (Creswell, 2013).

Validity, reliability and trustworthiness of the study

To achieve validity of this study, the researchers compiled the literature section from the peer reviewed journal articles which address the challenges and effects of the CBOs. By reliability, all the participants answered the questionnaires at the same time in a spacious room at one of the designated room at the Department of Social Work and Welfare. The Cronbach's alpha was used to determine the internal consistency of the 20 items. The table below shows the Cronbach alpha value is 0.643 which means the scale used is reliable. Cronbach alpha measures reliability, it normally ranges between 0 and 1. The closer the Cronbach alpha to 1.0 the greater the reliability. The Cronbach alpha of 0.643 respectively shows that the self-administered questionnaire is acceptable. To ensure qualitative trustworthiness, four Lincoln and Guba's (1985) principles, namely, *credibility, dependability, neutrality and transferability*, were applied. Firstly, the choice of the research method

provided relates to the credibility of the study. During the focus group interviews, researchers engaged the participants in a prolonged discussion by probing them to determine how the CBOs cope in navigating poverty in Mbashe village. The researchers asked the participants the same questions and to avoid researcher bias (neutrality), the responses were audio-recorded.

6. RESULTS AND DISCUSSION

Biographical information of the participants and respondents

Of the ninety-six participants in the study, 36 % (N=35) comprised males as opposed to 64% (N= 61) females. By age, 73% of the participants were between the 36 and 59 years old while only 27% ranged from 18 to 35 years old. Regarding marital status, 42. 2% indicated to have married while 38.9 % were never married. Divorced participants constituted 8.9% the same as widows/widowers relative to only 1.1% which did not specify. Table 1 further illustrates the socio economic status of the participants as majority (48.9%) of the respondents is unemployed, 37.5% work in projects compared to 9.4 % who indicated to be receiving salary or wages monthly or weekly.

Table 1: Description of the participants’ socio economic status

| Description of the participants’ socio economic status. | Number of participants |
|---|------------------------|
| Employment | N=9 (9.4%) |
| Unemployment | N= 47 (48.9 %) |
| Participants working in projects | N = 36 (37.5 %) |
| Students | N = 4 (4.2%) |

Descriptive analysis of the quantitative data

The descriptive statistics showed that 67% of the respondents benefited from the CBOs. A further 34.4% indicated that the community based programmes were beneficial for early childhood while 15.6 % indicated that the HIV/AIDS programme is supported in fighting poverty. Regarding the question: *Can you access your antiretroviral treatments with ease?* A staggering 93.4 % of the participants indicated that due to the support received from the CBOs, they no longer default like before.

Correlation analysis

It is clear from the table 2 that there is a strong correlation between accessibility of antiretroviral treatment (ARVs) and attitude of the beneficiaries towards CBOs ($r=0.44$, $p<0.01$). It therefore means, people who access the ARVs view the nurses as having positive attitudes towards the CBOs. Thus, the hypothesis is confirmed.

H_i: People who access the ARVs view the nurses as having positive attitudes towards the CBOs.

H_o: People who access the ARVs view the nurses as not having positive attitudes towards the CBOs.

From the table 2, there is another strong correlation between adaptive coping strategy and CBOs have effects on poverty eradication ($r=0.65$, $p<0.00$). The results show that people in the community cope because of the pivotal role played by the CBOs in eradicating poverty. Thus, the alternative hypothesis is confirmed.

H_i: People with adaptive coping strategies view the CBOs as eradicating poverty.

H_o: There is no relationship between people with adaptive coping strategies and the CBOs on eradicating poverty.

Table 2. Correlations

| | | CBOs have effects on poverty eradication | Attitude of the beneficiaries towards CBOs is positive | Accessibility of Antiretroviral Treatment | Adaptive coping strategy |
|--|---------------------|--|--|---|--------------------------|
| CBOs have effects on poverty eradication | Pearson Correlation | 1 | .359* | .383** | .651** |
| | Sig. (2-tailed) | | .010 | .006 | .000 |
| | N | 96 | 96 | 96 | 96 |
| Attitude of the beneficiaries towards CBOs is positive | Pearson Correlation | .359* | 1 | .442** | .430** |
| | Sig. (2-tailed) | .010 | | .001 | .001 |
| | N | 96 | 96 | 96 | 96 |
| Accessibility of Antiretroviral Treatment | Pearson Correlation | .383** | .442** | 1 | .574** |
| | Sig. (2-tailed) | .006 | .001 | | .000 |
| | N | 96 | 96 | 96 | 96 |
| Adaptive coping strategy | Pearson Correlation | .651** | .430** | .574** | 1 |
| | Sig. (2-tailed) | .000 | .001 | .000 | |
| | N | 96 | 96 | 96 | 96 |

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

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

Identified qualitative study themes

Prior the identification of the themes and categories, the researchers relied on Tesch's method of data analysis which explain how to identify similarities from the audio-taped responses of the participants. The themes identified following Tesch's method as conducive to the effects of CBOs for poverty eradication are; Support from the community leaders, monitoring and evaluation of the programmes. Two themes and categories with five sub-themes were identified.

Support from the community leaders

Community meetings

The participants expressed satisfactions as their community leaders would inform them about new developments in the village by calling the meetings. The extracts below illustrate strong leadership:

“If there is a conflict due to poor service delivery of food parcels, our community leader would inform us about a meeting through WhatsApp and request us to invite others” [P2]. “Community leaders would organize meetings to determine whether we performed the tasks delegated to us” [P5]. In contrast, P3 felt that the only challenge that is being experienced during meetings is lack of consistency in terms of readings of the previous meetings. “Although in these meetings we are informed, there is no documentation of the meetings”

Skills development

Empowering of the community seemed to be a number priority because the participants repeatedly mentioned how illiteracy and violence have decreased in the community. For example, P1 and P4 echoed the following sentiments, respectively; *“Because of the training received by some unemployed people, Mbashe village has HIV/AIDS peer counsellors and carpenters”. “The crime rate has decreased because the municipal councils encouraged the establishment of Community Police Forums (CPFs) and those who volunteered, were later hired as security officers”*

Donations

As part of support from the CBOs by holding meetings, three participants commended how their centres have been supported by donors. For example, P1 echoed the following sentiments:

“Children live in a secured environment as Nedbank assisted our centre with doors”. “The organization called World Vision gave us water tanks and that helped us with running the projects effectively” [P4]. “Boxer and Barons Supermarkets sponsored us by giving us grocery to give it to the needy” [P6]

Monitoring and evaluation of the programmes

Regarding the question: *“Who measures the progress of the CBOs as far service delivery is concerned?”*.

Two sub-themes emerge, namely accountability and fraud were reported by participants.

Accountability

With facial expression denoting life-satisfaction and personal growth, the participants were quoted as follows: *“Officials do their best in offering support because they monitor the implementation of services rendered to the vulnerable people” [P2]. “We have lay counsellors who report to the social workers about the people’s health, who, at first, were unable to take their treatment regularly because of long distance to the clinic”. [P3]*

Fraud

Negative responses which relate to monitoring of the CBOs showed that despite the accountability from the municipal officials and community leaders, P3 vehemently stated*For food parcels,*

there are officials who would refuse to process the names of the indigent families who do not belong to certain political parties and qualify those who afford". P2 reiterated that "Some of our leaders want bribery for job opportunities such as being a presiding officers for local government and national elections. Furthermore, women are being recognized even when they do not have proper skills for jobs in the municipalities".

7. DISCUSSION

As much as community engagement can be challenging particularly regarding sensitive health issues such as HIV/AIDS, the empirical findings in the present study reveal that people living with HIV from Mbashe village, have adaptive coping strategies because of the positive attitudes from the CHWs. From the table 2, a strong correlation between adaptive coping strategy and the CBOs' effects on poverty eradication ($r=0.65$, $p<0.00$) implies that the donations in the form of food parcels from the various donors such as Boxer and Barons supermarkets play a role to meet the physiological needs of the people and to build the CD4 count of those taking ARVs.

Participants reported the effectiveness of the CBOs because of training that has been offered to the unemployed to have skills, which, in turn, led to job-creation and poverty eradication because some community members got hired in the municipalities while others became self-employed. These findings resonate with the Capacity Building and Strengthening Framework as researched by Phale, Fanglin, Adjei Mensah, Omari-Sasu and Musah (2021), community development theory and empowerment theory as outlined in section 4.1 and 4.2 respectively. Thus, the narratives of P1 and P4 count on the crime-free environment and job-creation for people who used to live in poverty. When fraud was mentioned during focus group interviews, it was clear that there are officials who expect bribery for employment and sexual favours from women when they lack proper skills. Considering that there is a large number of unemployed (48.9%) as compared to the employed (9.4%), women empowerment in the areas of self-esteem, victim empowerment cannot be overlooked as the 18-35 age group participants in this study was at 27%. Practicing nepotism and depriving community members' food parcels because of affiliation to "out-group" political parties by unethical leaders in CBOs, emerged as eroding the purpose of the CBOs. This raises a concern because in OR Tambo district municipality and Nyandeni municipality, also in the Eastern Cape, a proportion of 15-19 teenage girls who gave birth in 2016 was 17.9% (Lehohla 2017). In this regard, there should be psycho-educational programmes for youth, in particular, to prevent sexually transmitted infections as in their desperation for jobs, they could be sexually coerced without the use of condoms. Finally, to overcome squandering of money at the municipal councils and bribery by community leaders serving in the CBOs, the government should periodically.

8. CONCLUSION AND RECOMMENDATIONS

This study concludes that community based approach stood out as pivotal in eradicating poverty because through meetings, people get informed and in the process, their plight is being tackled by the CBOs. Equally, the findings of this study shows that when people' physiological needs are met, their life-span can increase especially those living with chronic illnesses such as HIV. Although this study

attempted to achieve its objectives, it should be clear that for as long as there is exploitation of women and illiterate people in rural areas, the effectiveness of the CBOs would not be noticed.

Recommendations: In ensuring that the CBOs continue in curbing the scourge of poverty, a collaborative approach is recommended. Therefore, there should be expansion of agriculture and allied farm activities to focus of poverty eradication strategies in rural areas. Furthermore, the role of the Faith -Based Organizations (FBOs) alongside the Department of Health (DoH) in the Eastern Cape, should be to provide counselling and educating people about family planning as unemployment and poverty become the breeding grounds for unplanned pregnancies, violence, sexual abuse and criminal behaviour.

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GREENING UNIVERSITY EDUCATION: TOWARDS A NON-LINEAR INNOVATION MODEL

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ABSTRACT

Two universal programs, the 2030 Agenda for 17 sustainable development Goals and the Paris Climate Agreement, mandate and urge all in the 195-member countries of the United Nations to produce green knowledge and innovation. The changing institutional logic appears to change the isomorphism in producing the traditional disciplinary knowledge. Further, it demands non-linear collaborative, interdisciplinary, and transdisciplinary green knowledge and innovation for sustainable development from universities. Hence, this research aims to ascertain how universities' stakeholders perceive the reconfiguration of conventional curriculum (teaching), research, community outreach, and internal operation to new structures. A questionnaire of a five-point Likert scale was developed to collect non-parametric data. The questionnaire was administered among five university stakeholders, professors, senior lecturers, academic managers, non-academic managers, and students. A total of 89 respondents participated in the research. Chi-Squared tests were computed to determine if significant differences in perception regarding the greening of the university existed among respondents of the different categories. The computed Chi-square test statistics are lower than the chi-square value in all the four hypothesis tests. In consequence, the null hypothesis, that H_0 : There is no significant difference among the stakeholders for greening education, is not rejected. Accordingly, the findings confirm the reconfiguration of conventional structures to be green curriculum, green research, green community outreach, and green internal operations. Hence, the findings are significant to policymakers and university management to make necessary changes to produce green knowledge and innovation with a non-linear innovation model.

Keywords: Green university. Green education, Curriculum, Research, Community outreach, Internal operations, Non-Linear Model of Innovation. Non-parametric tests

1. INTRODUCTION

The 2030 Agenda for Sustainable Development Goals (SDGs) and the Paris Climate Agreement refer to complex social problems. Consequently, the knowledge and innovation needed to resolve complex social problems are called green knowledge and innovation. It is called *Glocal* (Global and Local) knowledge and innovation to resolve the domesticated SDGs. In the same spirit, Schneider et al. (2019) indicate that science must create knowledge and innovation to help humanity from achieving the 2030 agenda's vision beyond the conventional knowledge creation in earth system processes. Further, Klay et al. (2015) assert that interdisciplinary and transdisciplinary knowledge beyond disciplinary knowledge conventionally produced by universities is required for sustainable development.

Nevertheless, Conventional universities produce knowledge and innovation within their disciplines in isolation. In other words, they are generally neither interdisciplinary nor transdisciplinary. Another criticism is that there is a delay in applying knowledge and innovation produced with basic research not adequate to address complex social problems. Carayannis and Campbell (2010) metaphorically describe basic research as a first-then relationship in the linear model. It means that basic research is first conducted, then it is published. After that, the industry may choose to apply or experiment with one or more ideas of the published research. The 'first then' process creates a context in which the researcher and the end-user of basic research are unaware of each other. In other words, they are not accountable to each other.

Hence, Gibbons et al. (1994) introduced Mode 2 non-linear innovation model. Carayannis and Campbell (2010) metaphorically describe Mode 2 research as a 'simultaneous-simultaneous' application of knowledge and innovation. Later, Carayannis and Campbell (2010) expanded it to the next higher level called Mode 3 non-linear collaborative innovation model by introducing the Quintuple Helix Model of Innovation (QHM). It enables producing a superior quality of non-linear green knowledge and innovation. It has a more significant impact than the other non-linear and linear innovation models producing green knowledge and innovation. So, a green university means a university that enables producing green knowledge and innovation with QHM. It is a more appropriate helix model because it facilitates not only for collaboration, coevolution, co-specialization, and co-competition with Mode 1, Mode 2, Mode 3 of Quadruple Helix Model of Innovation, and the Triple Helix Model of Innovation but also adaptation with newer dynamics to produce green knowledge and innovation needed to resolve complex social problems delineated by 17 SDGs (Carayannis & Campbell, 2010).

In agreement with the non-linear collaborative green knowledge and innovation with QHM, Liyanage and Netswera (2021) propose reconfiguring eight universities' processes/dimensions to transform unsustainable universities into green universities. The proposed eight dimensions are Green Corporate Governance, Green Corporate Culture, Three Pillars of Sustainability, Green Teaching/Curriculum, Green Research, Green Internal Operation, Green Community Outreach, and Green Corporate Reporting. On this premise, a curiosity arises about how the internal stakeholders perceive the reconfiguration of conventional processes mentioned above.

Nonetheless, having considered time and spatial limitations to discuss all eight processes in one research paper, this study focuses only on green education. It is the umbrella word for four core processes, green curriculum, green research, green community outreach, and green internal operations (Lidstone et al., 2015). Therefore, this study aims to ascertain how the internal stakeholders of universities (professors, senior lecturers, academic managers, non-academic managers, and the students) perceive the necessity for reconfiguring the four core processes mentioned above. Accordingly, hypotheses are framed as follows.

The null hypothesis (H_0) is that:

H₀: There is no significant difference among the university stakeholders regarding the reconfiguration of greening education

In other words, different university stakeholders perceive in the same direction that the conventional *Curriculum, Research, Community Outreach, and Campus Internal Operations* are required to be reconfigured for greening a university.

Consequently, the alternative hypothesis (H_a) is that:

H_a: There is a significant difference among the stakeholders regarding the reconfiguration of greening education

In other words, different stakeholders of universities do not perceive in the same direction that the conventional *Curriculum, Research, Community Outreach, and Campus Internal Operations* are required to be reconfigured for greening a university.

After all, the literature review reflects that the quantitative measure of perceptions of different university stakeholders towards the production of green knowledge and innovation is rarely discussed. So, this study bridges a literature gap and further provides policymakers and university management insights to make necessary changes to produce green knowledge and innovation with a non-linear innovation model.

2. LITERATURE REVIEW

The knowledge and innovation needed for sustainable development contemplated by the 2030 Agenda can be termed green knowledge and innovation. Universities that are catalysts and leaders in innovation are expected to produce green knowledge and innovation by incorporating various principles and practices of sustainability in their education, consisting of four core processes: curriculum, research, internal operations, and community outreach. Among these four processes, academic research enables linking all the other three processes, i.e., curriculum (Lozano et al., 2017), community outreach (Steiner, 2017), and internal operations (Liyanage & Vishwanathan, 2020).

Green education produces green knowledge and innovation. It includes skills and competencies too. Knowledge is the understanding of sustainability. Skills are the abilities to do well in sustainability. Competencies are the abilities to do effective and efficient manner in sustainability. For example, Lozano et al. (2017) list sustainability competencies such as systems thinking, interdisciplinary work, anticipatory thinking, justice, responsibility, critical thinking, analytical work, interpersonal

relationships and collaboration, empathy and change of perspectives, communication and use of media, strategic thinking, personal engagement, assessment and evaluations, tolerance for ambiguity, uncertainty, and ethics. Accordingly, green education enables transforming unsustainable values and beliefs of university stakeholders into sustainable values and beliefs and further produces creative problem solvers and change agents (Burns, 2013). However, Vaughter et al. (2013) demonstrate that there is less progress in greening the curriculum even though there is progress in greening the internal operations. Zlotnikova & van der Weide (2015) indicate that the collaboration between the university and the community is essential to share green knowledge and resources among the university, students, and faculty (Steiner, 2017).

Innovation is the application of knowledge with a linear innovation model or non-linear collaborative innovation model. Universities produce knowledge and innovation with basic research in discrete disciplines, such as Management Science, Social Science, Chemistry, Physics, and Biology. These disciplines in basic research prevail in isolation rather than being interactive with each other. For example, when researching solar power project installed at a university, researchers from the Business and Accounting Faculty investigate the various financial aspects such as payback period, Internal Rate of Return, Modified Cost of Capital, Weighted Average Cost of Capital (Liyanage et al., 2020). For the same project, the Faculty of Engineering and Applied Science conducts a research about the optimization of solar energy harvesting. However, these two disciplines do not interact with each other in their basic research in general.

Another demerit of basic research is the delay in the application of knowledge and innovation produced with research that makes the economy less competitive. Bayh-Dole Act is the very first kind of legislation that remedied the delay in application. Before the Act, public universities did not own the intellectual property rights, such as patent rights. Any patent right of the university should be given to a governmental organization for commercialization. Nonetheless, the governmental organization could not effectively apply the research findings and caused further delay in application.

As a result, the Bayh-Dole Act was passed in 1980 in the USA, allowing funded public universities to own their intellectual property rights to commercialize. Following the Bayh-Dole Act, many European and Asian countries adopted similar legislation to facilitate the application of knowledge (Grimaldi et al., 2011) with academic engagement, such as collaborative research, contract research, consulting, and knowledge transfer between the industry and university (Perkmann et al., 2013).

Even though the Bayh-Dole Act and similar legislation facilitate applying research findings without delay, they cannot overcome the inherent disadvantages of the Mode 1 linear innovation model. Hence, Gibbons et al. (1994) conceive Mode 2 non-linear model of innovation. They termed the conventional production process of knowledge and innovation discussed above as Mode 1 Innovation Model and proposed the Mode 2 Innovation Model to overcome the Mode 1 demerits. According to them, the Mode 2 Innovation model, which has a greater impact in resolving complex social problems than Mode 1, is endowed with the following five characteristics:

- a) The research is conducted in the context of an application.
- b) It is transdisciplinary by blending with knowledge clusters outside the university.

- c) It is heterogeneous.
- d) There is organizational diversity.
- e) It is socially accountable and reflexive.

It is context-driven research because the research is carried out in the context of the problem to be resolved by the multidisciplinary team. It is transdisciplinary by the fact that knowledge is produced beyond the disciplines collaborating with other knowledge clusters, the government/political system, and the industry. The research is carried out in an environment where the researcher and the users are in a multidisciplinary team representing the university and other organizations outside the university. It is socially accountable and reflexive because the researcher and the users engage together in resolving the problem. In other words, the knowledge is co-created between the researcher and the users. Also, different quality control system beyond the conventional peer review system is used due to the interdisciplinary and transdisciplinary research (Nowotny et al., 2001).

From thereon, Carayannis and Campbell (2006, 2009) expanded Mode 2 Innovation to the next level called Mode 3 Innovation Model by introducing Quadruple Helix Model of Innovation. It extends the Triple Helix Model that advocates producing knowledge and innovation with three helices together: university, government, and industry (Etzkowitz & Leydesdorff, 1995, 2000). The Quadruple Helix Model of Innovation expands the triple helix model by including media-based and culture-based public and civil society as the fourth helix for a knowledge society and knowledge democracy (Carayannis & Campbell, 2009).

The Quadruple Helix Model of Innovation with its fourth helix incorporates the bottom-up approach, in contrast, the top-down approach previously introduced by the Triple Helix Model of Innovation (Carayannis & Rakhmatulin, 2014: 220). Carayannis and Campbell (2012) define the fourth helix by including various aspects of media and culture-based public and civil society such as values and beliefs, multiculturalism, culture, innovation culture, media, arts, art schools. Lindberg et al. (2012, 2014) endorsed the fourth helix emphasizing that it paves the way for the less privileged people to access the university, government, and industry resources. Further, the fourth helix strengthens democracy beyond constitutional democracy (Carayannis & Rakhmatullin, 2014: 220). Accordingly, the knowledge cluster, media-based and culture-based public and civil society, is recognized as a crucial part of the knowledge and innovation model.

Carayannis and Campbell (2010) further strengthened the non-linear collaborative innovation model, introducing the Quintuple Helix Model of Innovation. It is an extension of the Quadruple Helix Model of innovation by the inclusion of the fifth helix called the natural environment of society. The natural environment of the society refers to sustainable development. Sustainable development needs green knowledge and innovation. It is interdisciplinary and transdisciplinary knowledge and innovation (Klay et al., 2015). The fifth helix is fully committed to producing interdisciplinary and transdisciplinary green knowledge and innovation.

Despite the emergence of Mode 2, Mode 1 is still an important part of the production of knowledge and innovation. In the same line, Cruickshank (2013) mentions that even though the research landscape is changing towards applied research and funding is moving away from peer-to-peer

evaluation, both Mode 1 and Mode 2 have reciprocal benefits. Further, Carayannis and Campbell (2010) manifest that a hybrid combination of mode 1 basic research and Mode 2 problem-solving model can achieve society-wide diffusion of quality knowledge. Ferasso and Grenier (2019) explain the rationale behind this, endorsing that collaborative knowledge creation is superior to the non-collaborative production of knowledge and innovation.

Therefore, the Mode 3 Innovation Model has a greater impact than the Mode 2 Innovation Model in producing and applying non-linear collaborative knowledge and innovation for solving social problems. It ‘encourages interdisciplinary thinking and transdisciplinary application of interdisciplinary knowledge’ as well as ‘allows and emphasizes the coexistence and coevolution of different knowledge and innovation paradigms’ (Carayannis & Campbell 2010, pp. 51–52). Thus, Mode 3 innovation model with the Quintuple Helix Model of Innovation has the greatest impact than other innovation models for producing green knowledge and innovation needed for sustainable development.

3. METHODOLOGY

The research objective is to ascertain how university stakeholders, professors, senior lecturers, academic managers (such as deans and heads of departments), non-academic managers, and students (such as undergraduates and postgraduates) perceive the transformation of existing/conventional education of the university into green education. Their perceptions are subjective human feelings. Though subjective human feelings can be explored qualitatively, they can be transformed into objective reality (Joshi et al., 2015). Hence, this research is guided by the philosophy of positivism. It is an objectivist epistemology that measures the (quantifiable) observable social reality for generalization. The research question, the forerunner of the objective of this research is framed as a statistical method of hypothesis. The ontological position of researchers is independent of the research context by using a research instrument.

The numerical data collection and statistical analysis lead to the methodological choice of quantitative method research design. Boone and Boone (2012) point out that social scientists trust a quantitative measure of attitudes with a Likert scale instrument. Correspondingly, this research is a mono method quantitative study by collecting data with a single technique, the Likert scale instrument. After that, data collected are objectively analyzed to test the hypothesis framed in this cross-sectional research, and theory is developed deductively.

A pilot was run to test the instrument before administration, and it revealed that demographics questions and 24 Likert items for eight constructs need adjustments to meet the respondents’ discriminative capacity. In consequence, some demographics questions were omitted. Further, ten points of the Likert scale were reduced to five points to make the instrument readable and comfortable to the participants.

The five points of the Likert type scale were strongly disagree = 1, disagree = 2, undecided = 3, agree = 4, and strongly agree = 5. The values assigned for five points are not considered equal. For example, the differences of perceptions between strongly disagree = 1, disagree = 2, undecided = 3, agree = 4, and strongly agree = 5 on the Likert type scale cannot be considered equidistant even though numbers

were assigned. In other words, the numbers assigned are not interval data but ordinal data. Thus, non-parametric tests were considered as a more appropriate analysis of the data collected.

The sample size was determined as 65 observations as prescribed by Park and Jung (2009). According to the authors, when the number of Likert items is 3 for each construct, 90% confidence level, 5% relative tolerable error, and 0.5 pairwise correlation coefficient needs 65 observations, but 257 observations are required at 95% confidence level. In this study, 94 observations were collected from the stakeholders. While cleaning data, 5 of them were removed. Consequently, 89 responses were used for analysis.

Cronbach's alpha for the Likert Scale consists of three Likert items for each construct, Green Education, Green Research, Green Internal Operations, and Green Community Outreach are .684, .551, .658, and .516 respectively. They are sufficient for internal consistency because three items represent all the useful information. In support, Cronbach (1951) points out that even though the high alpha value is desirable, the critical point is if the score obtained is interpretable. The same author further explains that adding more items may be redundant if they provide little additional information despite increasing the alpha value but causes administrative difficulties.

4. DATA ANALYSIS AND FINDINGS

Likert Scale instrument with five points collected five types of stakeholders' perceptions concerning four dimensions of the green university. The four dimensions are green curriculum, green research, green community outreach, and green internal operations. Each of the five responses is a rank order. Accordingly, the ordinal data were collected from the respondents who were asked to rank for three Likert items for each construct: green curriculum, green research, green community outreach, and green internal operations.

When analyzing quantitative data for hypothesis testing, there are two statistical methods: parametric and non-parametric tests. Parametric tests are used for normally distributed data characterized by the mean and the standard deviation. The parametric test needs interval data or ratio data. The data collected in this study is neither interval data nor ratio data. In other words, the data collected in this study is ordinal. Cohen et al. (2000) elaborate that it is illegitimate to infer that the difference between "Strongly disagree" and "Disagree" is equal. In the same vein, Jamieson (2004) points out that parametric tests such as mean and standard deviation are inappropriate for ordinal data. Consequently, the non-parametric tests such as Chi-square, Spearman's Rho, or the Mann-Whitney U-test are used for non-parametric tests. In contrast, Blaikie (2003) endorses using the parametric tests with ordinal data stating that researchers frequently use. However, the debate is not yet concluded if the parametric test can analyze non-parametric data (Jamieson, 2004; Norman, 2010).

Therefore, as Jamieson (2004) points out that the non-parametric test is more appropriate for analyzing ordinal data collected from the Likert Scale Instrument in this study. Accordingly, Pearson's Chi-squared test (X^2) with a contingency table (Table 1, 2, 3, & 4) is used for each construct. The contingency table was designed as 2 X 5 table of frequencies. Two rows represent Agreed and Disagreed. The row disagreed includes undecided frequencies to avoid small values of expected counts. The five columns represent five groups of stakeholders, 15 Professors (Group 1), 24 Senior

lecturers (Group 2), 16 Academic managers (Group 3), 13 Non-academic managers (Group 4), and 21 Students (Group 5), respectively.

Pearson's Chi-Square test statistics with the contingency table are calculated based on the formulae below to reject the null hypothesis. Keys for Chi-Squared Formulae: r is row, c is column, $i = 1 \dots I$, $j = 1 \dots J$, Σ = sum, O = Observed value, and E = Expected value.

$$X^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{(O_{i,j} - E_{i,j})^2}{E_{i,j}}$$

H_0 is rejected if the distribution for the chi-square for H_0 is, for large N , approximately $X^2_{f(\alpha)}$, where f is the degrees of freedom are $(I - 1)(J - 1)$, namely, $(2-1)(5-1) = 4$; α is taken as .10. Accordingly, the significance test is as follows:

$$X^2 \geq X^2_f(\alpha).$$

Table 1- Contingency Table: Perceptions of Green Education

| Green Curriculum | | Group-1 | Group-2 | Group-3 | Group-4 | Group-5 | |
|-------------------|--|---------------------------------------|---------|---------|---------|---------|-------|
| Agreed | | 41 | 63 | 42 | 34 | 56 | 236 |
| Expected | | 38.09 | 60.94 | 40.63 | 33.01 | 53.33 | 226 |
| Disagreed & Undec | | 4 | 9 | 6 | 5 | 7 | 31 |
| Expected | | 6.91 | 11.06 | 7.37 | 5.99 | 9.67 | 41 |
| | | 45 | 72 | 48 | 39 | 63 | 267 |
| Sigma(O/E)^2/E | | 0.222 | 0.069 | 0.046 | 0.030 | 0.134 | 0.502 |
| | | 1.226 | 0.382 | 0.255 | 0.163 | 0.739 | 2.765 |
| | | chi-Square Statistics | | | | | 3.267 |
| | | D/F = 4 and at 10% significance level | | | | | 7.78 |
| | | D/F = 4 and at 5% significance level | | | | | 9.49 |
| | | D/F=4 and at 1% significance level | | | | | 13.27 |

Source: Authors

Accordingly, the Chi-square statistics of 3.267 is less than the critical value of 7.78, which means H_0 cannot be rejected. In other words, there are no significant differences among the stakeholders for greening curriculum at α at 0.1 level of significance.

(2015) point out that non-pedagogical activities can also be used to internalize sustainability values among the students. Therefore, the third Likert item queried if the non-pedagogical activities, such as guest lectures, green projects, could be incorporated into the pedagogies.

Another dimension that needs to be reconfigured is the conventional research to green research. Alkhayyal et al. (2019) advocate that universities should incorporate sustainability into their research to produce green leaders to benefit society. Accordingly, the first Likert item explored if the green research of universities is considered an important aspect of a greening university. Sammalisto et al. (2015) mentioned that teaching and faculty sustainability research enable imparting sustainability knowledge to students. Dmochowski et al. (2016) identified the importance of students' green research with the faculty. Along similar lines, the second and third Likert items examined if a part of faculty and students' research should be devoted to sustainability research.

Community outreach is also another aspect of greening university. de Hooge and van Dam (2019) contend that community outreach is a tool that can be used not only to apply research grants and individual assignments but also to share knowledge and resources. Zlotnikova and van der Weide (2015) assert that community outreach shares the benefits of common interests between the university and the community. Accordingly, the first Likert question examined if community outreach can also be considered an important aspect of a green university. Lopez (2013) recommends that pedagogical innovations in a green university enable students to foster community consciousness. In the same line, the second Likert question sought the intellections of the internal stakeholders if students could devote a part of their engagement with the community relating to sustainability. Steiner (2017) points out various benefits of scholarship engagement of the faculty with the community. In the same spirit, the third Likert question examined if the faculty could devote a part of their engagement with the community in relation to sustainability.

The fourth dimension sought the intellections for the green campus, in other words, internal operations of the campus. The green internal environment now includes the conventional environment and various projects to internalize CO₂ (Liyanage et al., 2020) and water conservation (Liyanage & Viswanathan, 2020). Correspondingly, the first Likert question explored if a green internal ecological environment created with renewable energy projects, green buildings are vital for a green university. Another critical aspect of internal operations is the conservation of resources. In the same line, Liyanage and Vishwanathan (2020) analyzed a water conservation project at a university. They demonstrated that the project relates to SDG 06: Clean Water & Sanitation, SDG 12: Responsible consumption and production. Correspondingly, the second Likert question explored if a green university could conserve resources. Another vital aspect of a green campus is the quality of life. Tiyyarattanachai and Hollmann (2016) assert that stakeholders in a green university perceive a better quality of life than stakeholders in an unsustainable university. In the same line, the third Likert question examines if a green ecological environment provides better living standards for all stakeholders.

6. CONCLUDING REMARKS

The conventional knowledge and innovation process with basic research at universities has been criticized in recent times. One of the criticisms against Mode 1 Innovation is that there is a delay in the application of knowledge. Another drawback is that it produces knowledge and innovation within their disciplines in isolation, but the knowledge and innovation needed for sustainable development are interdisciplinary and transdisciplinary. Hence, the reflections and the insights behind these challenges introduced several new approaches to producing knowledge and innovation.

These approaches include action research (Bradbury, 2015), transdisciplinary research (Hirsch Hardon et al., 2006), post-normal science (Ravetz & Funtowicz, 2015), Mode 2 Innovation Model (Gibbons et al., 1994), Mode 3 Innovation Model (Carayannis & Campbell, 2006, 2009), Triple Helix Model of Innovation (Etzkowitz & Leydesdorff, 1995, 2000), Quadruple Helix Model of Innovation (Carayannis & Campbell, 2009), and Quintuple Helix Model of Innovation (Carayannis & Campbell, 2010). Among them, this research advocates Mode 3 Innovation model with the Quintuple Helix Model. It is the most appropriate model to produce green knowledge and innovation because it accommodates collaboration, coevolution, co-specialization, and co-competition with the other models of innovation (Carayannis & Campbell, 2010).

However, the Mode 3 Innovation model with Quintuple Helix Model cannot be effectively incorporated into unsustainable/conventional universities without reconfiguring them. In this regard, eight processes could be identified for reconfiguration: Green Corporate Governance, Green Corporate Culture, Three Pillars of Sustainability, Green Curriculum/Teaching, Green Research, Green Internal Operation, Green Community Outreach, and Green Corporate Reporting (Liyanage & Netswera, 2021).

This study focuses only on four processes due to temporal and spatial constraints. Accordingly, this research aims to ascertain how the internal stakeholders of universities, professors, senior lecturers, academic managers, non-academic managers, and the students perceive the necessity for reconfiguring the conventional curriculum, research, community outreach, and campus internal operations.

The ordinal data collected with the five-point Likert Scale were analyzed by the non-parametric test of Chi-Square calculated with contingency tables. The Chi-Square statistics were less than the critical value of Chi-square. Hence, the null hypothesis that H_0 : *There is no significant difference among the stakeholders regarding Green Corporate Culture* could not be rejected. It indicates that the university stakeholders perceive in the same direction that the four conventional processes need to be reconfigured to transform into a green university.

However, this research was subject to certain limitations. These limitations provide spaces for further research. One of the spaces for future research is to collect a larger sample adequate to maintain 95% or 99% confidence level. Another opportunity for future research is to focus on the remaining untested stakeholders such as parents of students, sponsors of students, and potential students.

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PROJECTS AND PROGRAMMES: SIMILARITIES, DIFFERENCES AND IMPLICATIONS FOR RISK MANAGEMENT IN SOUTHERN AFRICAN INFRASTRUCTURE DEVELOPMENT

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ABSTRACT

The implementation of capital infrastructure projects is a strategic requirement for economic growth in Africa. There is increasing acknowledgement that programme management should be employed in the implementation of strategic change. Programme management refers to the coordinated management of multiple projects to achieve benefits and control not achievable by managing each project individually. However, managing the risks related to the implementation of capital infrastructure programmes is complex due to the dynamic nature, societal requirements and cost implications of such programmes. Accordingly, the importance of programme risk management as a supportive process of programme management is now widely acknowledged. However, executing programme risk management principles in practice has proved to be difficult. The purpose of this paper is to report similarities and differences between projects and programmes, and the practical implications of these similarities and differences for risk management in southern African infrastructure development. This qualitative study is based on (1) a literature review on programme risk management, (2) semi-structured interviews with southern African project and programme management practitioners on their experiences, and (3) inductive thematic analysis. I present challenges of programme risk management due to similarities and differences between projects and programmes, and their implications for risk management in southern African infrastructure development. This study provides theoretical and practical insights into a field that is important for the African development agenda, but where current knowledge appears to be inadequate to facilitate the transitioning from project to programme risk management. The study further positions programme risk management as a framework that bridges the gap between project risk management and portfolio risk management.

Keywords: Programme risk management, Programme risk management in southern Africa, Programme risk culture

1. INTRODUCTION

Programme management is gradually being used globally as a structural tool to implement strategic change. Consequently, the significance of programme risk management to support programme management is now widely acknowledged. However, despite significant risks associated with large project-based programmes, the field of programme risk management remains underdeveloped in practice and academically (Aritua, Smith, & Bower, 2010; Hillson, 2008; Rasheed, Wang, & Yaqub, 2015; Sanchez, Robert, Bourgault, & Pellerin, 2009). Executing programme risk management principles presents challenges that are different from those of project management (Smith, Bower, & Aritua, 2008). Such demands complicate the development and implementation of a generally accepted framework for programme risk management, and more academic work in this field is needed.

The objectives of this paper are to (1) review similarities and differences between projects and programmes, (2) explore programme risk management challenges as described in the literature and as experienced in practice in southern Africa, and (3) provide the implications of these differences for risk management in infrastructure development. The paper starts with a literature review to provide the reported differences between project and programme management. Then, semi-structured, open-ended interviews are described that were conducted with programme management stakeholders drawn from different economic sectors in southern Africa, to obtain independent information on their corresponding experiences. The findings from the literature are then compared with those from the interviews, to develop a consolidated list of programme risk management challenges, to provide theoretical and practical insights into this increasingly important area.

2. LITERATURE REVIEW

Definitions used in this study

The terms “programme” and “programme management” have several definitions (Shehu & Akintoye, 2010; Thiry, 2002). However, for the purpose of this paper, the definitions provided by the Project Management Institute (PMI) (Table 1) were adopted because of their prominence in the field. These definitions highlight the association between programme management and the attainment of strategic objectives and benefits in contrast with the typical on-time, on-budget and on-specification criteria for success associated with project management.

Table 1: Definitions employed in this study

| Terminology | Definition | Source |
|----------------------|---|--------------|
| Project | A project is a temporary endeavour undertaken to create a unique product, service or result. | PMI (2017a) |
| Programme | A programme is defined as related projects, subsidiary programmes, and programme activities managed in a coordinated manner to obtain benefits not available from managing them individually. | PMI (2017b) |
| Portfolio | A portfolio is defined as projects, programmes, subsidiary portfolios, and operations managed as a group to achieve strategic objectives. | PMI (2017a) |
| Project management | The application of knowledge, skills, tools and techniques to project activities to meet project requirements. | PMI (2017a) |
| Programme management | The centralised coordinated management of a programme to achieve its strategic objectives and benefits. | PMI (2017b) |
| Portfolio management | The centralized management of one or more portfolios to achieve strategic objectives. | (PMI, 2017a) |

Bridging the gap between project and portfolio risk management

The definitions of programme and programme management in Table 1 indicate that programme management (1) integrates individual projects in a programme to realise its strategic objectives and benefits; (2) is strategic in nature, whereas project management is tactical in character; and (3) focuses on multiple projects and their interdependencies, whereas project management emphasizes executing single projects. The requirements for programme management are therefore different from project management, so that the one should not be regarded as an extension or subsidiary of the other (Arto, Martinsuo, Gemünden, & Murtoaro, 2009; Hillson, 2008; Pellegrinelli, 2010; Shehu & Akintoye, 2009; Smith et al., 2008).

Standard *project* management approaches are therefore insufficient for implementing *programmes* in multifaceted and changing environments that require giving attention to portfolios of projects (Aritua et al., 2010; Pellegrinelli & Partington, 2006; Sanchez et al., 2009). There is thus a need for a programme-based approach to execute project portfolios strategically (Lycett, Rassau, & Danson, 2004; Nieto-Morote & Ruz-Vila, 2011; Olsson, 2008; Pellegrinelli, Partington, Hemingway, Mohdzain, & Shah, 2007; Shehu & Akintoye, 2009; Ward & Chapman, 2003). Programme management provides a link between project delivery and attaining an organisation’s portfolio strategy (Pellegrinelli & Bowman, 1994; Pellegrinelli & Partington, 2006; Rauner, Reiss, & MacNicol, 2013).

The main aim of managing programme risks in organisations is to enable programmes to meet their objectives. Programme risk management therefore forms an important part of programme management. Given the differences between programme and project management outlined above, project risk management techniques are insufficient for programme risks (Aritua et al., 2010; Hillson, 2008; Smith et al., 2008). Modified programme risk management processes and procedures are

therefore required. Programmes are risky undertakings, however, and yet their risk management is comparatively underdeveloped (Aritua et al., 2010; Hillson, 2008). To contribute to the body of knowledge on programme risk management, this paper reports and elaborates on the challenges of programme risk management described in the literature and experienced in practice.

3. METHODOLOGY

Research approach

Figure 1 encapsulates the approach followed in this paper based on a literature review, semi-structured interviews, and qualitative data coding. Coding refers to the process of aggregating data into categories or themes of information that share a common characteristic (Collis & Hussey, 2014; Creswell, 2013). We followed an inductive thematic analysis approach, in which data coding themes were identified from the literature and interview data without relying on a pre-existing coding framework (Braun & Clarke, 2006). These themes led to the establishment of a consolidated list of programme risk management challenges.

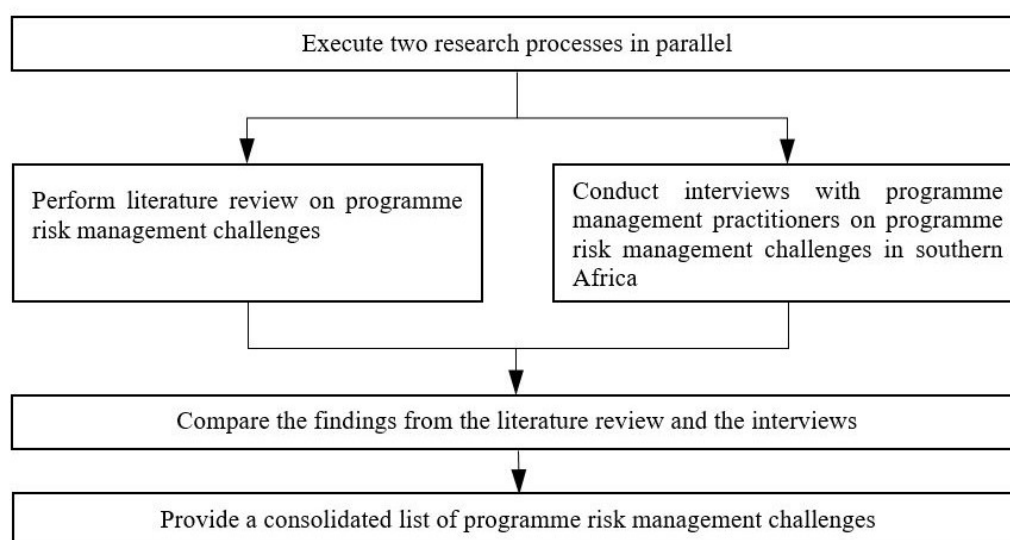


Figure 1: The research approach employed in this paper.

Data collection

This paper is based on the literature published by international organisations and journals specialising in project, programme and portfolio management. The research objectives informed the formulation of open-ended programme risk management challenge questions for semi-structured interviews with project and programme managers in southern Africa. The purpose was to obtain independent, practitioner-based information to see whether the widely reported challenges also hold in the subcontinent.

Literature-based thematic codebook

Project risk management is a well-developed domain in comparison with programme risk management, for which specifically written methodologies are difficult to find in practice (Sanchez

et al., 2009; Teller, 2013). In view of this practicality, there were no inclusion or exclusion criteria applied in this paper. The study involved an extensive search of all the literature using the key words *program management*, *programme management*, *program risk management* and *programme risk management*. It is worth stating here that the literature used in this article is the most recent and relevant that could be found at the time of writing, and that there is less knowledge and literature on programme risk management than on project risk management. The databases searched were accessed through the North-West University database.

Interviews

This study employed five interview questions. Question 1 was used to assess whether a communal definition and a communal understanding of programme risk management were used in practice. Question 2 sought to evaluate participants' experience of programme risk management compared with project risk management. Question 3 established programme risk management challenges. Question 4 prompted further data that supplemented data from the first three questions, with particular emphasis on enhancing the application of programme risk management. Question 5 allowed participants to expand their views on programme risk management.

The interviews were conducted in 2017 with participants from across southern Africa. Therefore, the COVID-19 pandemic prevalent at the time of writing this article had no influence on this study. Due to the geographical distribution of participants in the study, a combination of face-to-face and virtual interviews was used. Skype was employed for virtual interviews. All interviews were voice-recorded and later transcribed for purposes of data analysis.

Data analysis

Literature-based thematic codes

Using inductive thematic analysis, an initial list of programme risk management challenges was created from the literature (Table 2).

Interview-based thematic codes

The interview data were analysed and interpreted using a qualitative coding process. The constant comparative method of qualitative analysis was used in order to code the interview data per interview question (Glaser, 1965). Thus, any newly collected data were compared with those collected previously from earlier interviews. This process continued until there were few or no new codes found in the data, implying that adequate levels of data saturation had been achieved to satisfy the aims of the study (Saunders, Lewis, & Thornhill, 2009). This point was reached after the eighth interview, beyond which only two new codes were generated. Ten interviews therefore proved to be sufficient for this study as little new information emerged after the eighth interview, implying that adequate levels of data saturation had been achieved by then.

Coding the interview data independently allowed for the evaluation of the practitioner-based interview thematic codes against those from the literature and to produce a consolidated list of programme risk management challenges.

4. RESULTS AND DISCUSSION

Findings from the literature review and the interview data

The literature related to programme risk management reveals the immature nature of the field. For example, the terms programme and programme management were found to be inadequately standardised, with different context-based interpretations (Hillson, 2008; Lycett et al., 2004; Pellegrinelli, 1997, 2010; Pellegrinelli & Bowman, 1994; Shehu & Akintoye, 2010). Also, processes and practices specifically developed for programme risk management are difficult to find (Sanchez et al., 2009; Teller, 2013). These activities have either been developed for project risk management or are generic and require adapting to it (Sanchez et al., 2009; Smith et al., 2008). Furthermore, just as programme management has not yet reached the level of maturity attained by project management (Hillson, 2008; Pellegrinelli, 2010), programme *risk* management has not yet matured as much as project *risk* management (Sanchez et al., 2009). Table 2 illustrates the nine thematic codes based on the literature.

Table 2: Literature-based summary of programme risk management challenges

| No. | Challenge | Description | References |
|-----|--|--|---|
| 1 | Inadequate programme risk management strategy | Inadequate commitment and planning for institutionalising programme risk management in an organisation. | Papadaki et al. (2014); Rasheed, Wang, and Yaqub (2015); Shehu and Akintoye (2010) |
| 2 | Inadequate programme management standardisation | The terms programme and programme management are used in different ways, leading to confusion about what programme management is. Consequently, lower-level programme management processes, such as programme risk management, are inadequately defined. | Hillson (2008); Pellegrinelli (2010); Rasheed, Wang, and Lucena (2015); Rasheed, Wang, and Yaqub (2015); Shehu and Akintoye (2009); Shi, Zhou, Xiao, Chen, and Zuo (2014) |
| 3 | Programme complexity (interdependencies between programme management, organisational strategic management and individual projects) | Programme management interacts extensively with organisational strategic management and individual projects. Hence, programme risk does not simply equal the sum of individual project risks. | Hillson (2008); Rasheed, Wang, and Yaqub (2015); Smith et al. (2008) |
| 4 | Inadequate programme risk management awareness | Poor familiarity with programme risk management which may lead to incorrectly equating project and programme risk management, or simply applying project risk management processes to project programmes. | Artto et al. (2009); Hillson (2008); Pellegrinelli (2010); Shehu and Akintoye (2009); Smith et al. (2008) |

| No. | Challenge | Description | References |
|-----|--|---|---|
| 5 | Inadequate programme risk management skills | A shortage of experienced programme risk management resources to carry out programme risk management tasks or activities. | Papadaki et al. (2014); Rasheed, Wang, and Yaqub (2015) |
| 6 | Inadequate programme risk management knowledge | Frameworks, processes, procedures and guidelines specifically developed for programme risk management are difficult to find. | Papadaki et al. (2014); Rasheed, Wang, and Lucena (2015); Rasheed, Wang, and Yaqub (2015); Sanchez et al. (2009); Shi et al. (2014); Smith et al. (2008); Teller (2013) |
| 7 | Inadequate programme risk management communication | Lack of accuracy, completeness or timeliness for programme risk reporting. | Rasheed, Wang, Faiza, Rafique, and Di (2014); Rasheed, Wang, and Yaqub (2015); Shi et al. (2014) |
| 8 | Non-supportive programme risk culture | The programme-risk-related values, attitudes, beliefs, and understanding shared by employees of an organisation that create a non-supportive programme risk management environment. | Papadaki et al. (2014); Rasheed, Wang, and Yaqub (2015) |
| 9 | Low programme risk management maturity | Programme risk management has not yet achieved the level of maturity attained by project risk management. | Aritua et al. (2010); Hillson (2008); Sanchez, Robert, and Pellerin (2008) |

Source: Adapted from Mulambya and Zaaiman (2021)

The interview data were coded independently of the literature-based themes, resulting in an initial codebook with 28 codes shown in Table 3.

Table 3: The initial 28 codes generated from the interview data on organisational programme risk management challenges

| No. | Code | Description | Examples of interview quotes |
|-----|---|---|---|
| 1 | Programme risk management focus on benefits, not just on cost, time and quality | Programme risk management focuses on the realisation of business benefits rather than just looking at project cost, time and quality. | ‘Initially when you look at programmes, because now you are not worried about delivering pieces of artefacts, but you are actually worried about the benefits.’ ‘A programme is required to deliver projects, long-term benefits and other strategic objectives.’ |
| 2 | Inadequate programme risk management business case | Inadequate justification or rationale for businesses to consider programme risk management. | ‘My biggest light bulb moment is the fact that if you are busy with such a large change programme, all the parts are changing at the same time, risk management is the one thing that can pull those things together.’ ‘And also defining the benefits of implementing programme risk management, as well as the downside if you do not implement it.’ |
| 3 | Inflexible programme risk management governance | The rigidity of policies, procedures, practices and processes by which programme risk management is directed and controlled. | ‘The other aspect is that there are, for example, within the organisation some people that bypass the current processes.’ ‘There is too much governance.’ |
| 4 | Inadequate programme risk management strategy | Inadequate commitment and planning for institutionalising programme risk management in an organisation. | ‘If you think about causes, there is no clear risk management strategy with regard to projects and no clear roles and responsibilities.’ |
| 5 | No centralised programme office | The absence of a central office where the programme is run. This office can take different names. | ‘That is the office that pulled all the projects together. That would be the place where the programme would run. So, I think the thing that worked very well was the very close coordination of the programme and its sub-projects.’ (The lack of a central office could lead to bad programme coordination.) |
| 6 | Not understanding the business | Inadequate knowledge of, or familiarity with, the business. Risk management should be an integral part of the everyday running of the business and risk | ‘Because there was a programme running on top of this business, if you understand the underlying business, you could understand the integration.’ ‘But the fact that at that point I understood most of the other business units, it made it easy to integrate into |

| No. | Code | Description | Examples of interview quotes |
|-----|---|---|--|
| | | managers should understand the business. | the programme.’ (If understanding the business works well, the converse may not work well.) |
| 7 | Programme risk management definition-related issues | Issues related to the definition of programme risk management, or instances where the term programme risk management is not formally defined in the organisation. | ‘I am asking you to give me the definition of your understanding of programme management so that I can answer you in accordance with that.’ ‘I do not think that the organisation formally said that they were running a programme. Even though it was a big programme made up of quite a large number of sub-projects, they never called it a programme.’ |
| 8 | Inadequate programme management standardisation | The terms programme and programme management are used in different ways, leading to confusion about what programme management is. | ‘The standard practice of using a generic work breakdown structure for a programme, instead of a work breakdown structure specifically tailored for programme management.’ ‘That the procedure is not rolled out and standardised across the whole company.’ |
| 9 | Programme risk management process complexity | A programme risk management process that is not easy to understand, explain or use. | ‘And it was enormously complicated with an enormous amount of detail.’ |
| 10 | Interdependencies between programme management, organisational strategic management and individual projects | Programme management interacts extensively with organisational strategic management and individual projects. Hence, programme risk does not simply equal the sum of individual project risks. | ‘Which includes then also the management of business risks identification, and interdependencies between risks. So, a delay in one project could actually lead to delays all over.’ ‘I think it came as a result of understanding that there are interdependencies between a number of related projects which are delivering certain collective benefits. And what that sometimes entails is the crossing of business operational people and your programme delivery people.’ |
| 11 | Varying sizes of programmes | Programmes by their nature are big. Hence, programme risk management could be big. | ‘They were almost anxious by the enormity of the change.’ ‘Sometimes a project is so big and it’s got huge coverage. It could be at one site but with huge coverage, and could become a programme on its own purely because of its size.’ |

| No. | Code | Description | Examples of interview quotes |
|-----|---|--|---|
| 12 | Running many programmes simultaneously | The activity of running many programmes at the same time. | ‘Because if you are going to say let us do system change, together with a process change, together with a structure change, you are very much disrupting everything, and I think there is a need to plan properly.’ |
| 13 | Confusion between project and programme risk management | The inability to differentiate between project and programme risk management, or simply applying the project risk management process at a higher level, or simply aggregating project risks. | ‘And what I have picked up is that there is a lot of confusion in terms of the difference between project risk and programme risk. In their minds, it is one and the same thing. So, people tend to look at risk from a project perspective.’ ‘And what we find is that they have got infrequent risk management meetings and there is a bigger emphasis on project risk management than programme risk management.’ |
| 14 | Low programme risk management awareness | Poor familiarity with programme risk management. | ‘So, they were not aware of the process.’ ‘And I think there is also an awareness that is lacking in terms of elevating programme risk management to being a core function, so that it is resourced appropriately and given the right level of importance in the organisation to ensure that we have a more sustainable delivery of programmes.’ |
| 15 | Managing a programme in isolation | Treating a programme as though it was a single project. | ‘And what he or she tends to do is to try and manage a programme as if it is a project. So everything is managed in isolation.’ |
| 16 | Inadequate programme risk management skills | A shortage of experienced programme risk management resources to carry out programme risk management tasks or activities. | ‘The competency of people who have been put in programme management roles plays a huge role. A very good project manager is not necessarily a good programme manager.’ ‘It is not the methodology that is the challenge. You need to have the right people.’ |
| 17 | Inadequate programme risk management standards, processes and methodologies | Inadequate guidelines, practices, procedures, rules, frameworks, metrics and tools employed in programme risk management. | ‘Lack of a clear programme risk management framework, processes and guidelines.’ ‘It is the lack of clearly defined processes and procedures.’ |

| No. | Code | Description | Examples of interview quotes |
|-----|---|--|--|
| 18 | Scarcity of literature specifically for programme risk management | Programme risk management guidelines, practices, procedures, rules, frameworks, tools and literature are difficult to find | <p>‘Our organisation follows part of the PMI process. However, we have changed a little bit to match the needs of our organisation.’</p> <p>‘I do not view the frameworks as being very industry specific, which I think is a weakness in itself. I understand the methodologies are generic but the nature of our industry itself, I mean the entity touches a number of industries where internationally it will probably be three or four separate entities.’</p> |
| 19 | Inadequate programme risk management knowledge sharing | Inadequate processes of transferring or disseminating programme risk management experiences, lessons learned or information from one person or group to another person or group. | <p>‘So that is, there is obviously the closure and within the closure there is the learning as well, which is an ongoing thing to then say, whatever we have picked up in how we have executed it, how does it continuously feed back into other programmes?’</p> <p>‘Importantly, I would like to see the lessons learned cascade quicker. You get a lesson being learned, then there is someone asking for it again in the next programme. Some of these people are within the same office or the same geographical location.’</p> |
| 20 | Inadequate programme risk management communication | Inadequate reporting and receipt of programme risk management information for decision making. | <p>‘It became clear to me that risk management was now part of the programme dashboard. And I would put the risks in there. These are the risks to the project, different projects roll up risks to the programme.’</p> <p>‘And then obviously there is the normal management of the risks themselves, which is the ongoing reporting, monitoring and all of that.’ (These statements on reporting indicate what works well. Thus, the absence of reporting may not work well.)</p> |
| 21 | Non-supportive programme risk management tone from the top | Programme risk management tone from the top refers to how an organisation's leadership leads by example, | <p>‘It comes from the top of the tree. The captain of the ship affects how his ship operates.’</p> <p>‘What works well is what suits the programme managers and suits the</p> |

| No. | Code | Description | Examples of interview quotes |
|-----|--|---|--|
| | | thereby creating an atmosphere in the workplace where the programme risk management tone trickles down to the employees of that organisation. | client. It is very difficult to get programme managers to do something that the client is not prepared to pay for. The client is not always prepared to pay for risk management.' |
| 22 | Non-supportive programme risk culture | Inadequate values, attitudes, beliefs, and understanding regarding programme risk among employees of an organisation that creates a non-supportive programme risk management environment. | 'What we found is that if your risk culture in the company is wanting, then programme risk management won't work.' 'Setting risk culture to be pro-active in the identification and management of programme risks.' (Programme risk management values, beliefs, knowledge and understanding that support programme risk management create a supportive environment.) |
| 23 | Low programme risk management maturity | Programme risk management has not yet attained a level of maturity attained by project risk management. | 'I think programme risk management is gaining maturity.' (The interviewee implied low programme risk management maturity currently.) 'It is not really a mature space where you are able to go within the country to get a group of people saying that let us talk about programme risk. We are very good at project risk. You cannot say so for programme risk.' |
| 24 | Late involvement of programme risk management in programme execution | Programme risk management resources are not part of programme execution from the inception of the programme. | 'I think if I look at when they came to me, by that time, they were already six months to a year into the programme.' (The interviewee served as risk manager on an organisational strategic change.) 'But it means that upfront at the business case, we actually need to do proper risk management. Now that is where risk management starts. It basically starts in the option selection phase.' (Programme risk managers should get involved at the beginning of programme execution.) |
| 25 | Inadequate programme risk ownership | Programme risks are not appropriately assigned to persons or entities that will be accountable to ensure that the risk is managed. | 'The first one is ownership. Risks need to be owned and managed by either project directors or programme directors and the programme management office.' |

| No. | Code | Description | Examples of interview quotes |
|-----|---|--|---|
| 26 | Inadequate programme risk management process ownership | Inadequate persons or entities that have the accountability for the programme risk management process performance. | <p>‘So basically, to check all the risks, to have a risk register that has all the risks defined and the risk owners and the dates by which they should be closed.’ (Risk ownership is important for good programme risk management practice.)</p> <p>‘So, if you do not have people that are the guardians of the procedure and the guardians of the process, to make sure that it is done and that it is not done as compliance.’</p> <p>‘My involvement purely is to have line of sight of the risks, and then I also have to oversee the risks that they are being managed.’ (This person owns and monitors the process.)</p> |
| 27 | Inadequate programme risk life-cycle tracking | Inadequate tracking of the management of risks in a programme life cycle from the inception to the closure of a programme. | <p>‘There is a time horizon that you put on them as well because there is a cost of decision associated with each one of those risks or opportunities that we track.’</p> <p>‘Not reporting only, but monitoring and evaluating the risk performance until the end of the programme.’ (Risk tracking and monitoring is important. Merely reporting alone is not enough.)</p> |
| 28 | Programme risk management not aligned with other programme management processes | Inadequate alignment between programme risk management process and other programme management processes. | <p>‘So, I made sure that my process level involvement was aligned with their processes each and every way, at programme level and at project level.’</p> |

Source: Adapted from Mulambya and Zaaiman (2021)

Table 4 shows that the interview-based codes in Table 3 mapped to the literature-based codes in Table 2, with one new, practice-specific thematic code emerging from the interviews: ‘Inadequate programme risk management execution’. Therefore, the interview data yielded challenges similar to the literature. This equivalence of information from different sources leads to greater confidence in the credibility of the findings (Bowen, 2009). Therefore, the convergence of the findings from the literature and the interviews enhanced the credibility of this study.

Table 4: Interview-based codes mapped to literature-based codes

| No. | Literature-based codes (Table 2) | Interview-based codes (Table 3) |
|-----|--|--|
| 1 | Inadequate programme risk management strategy | 1. Programme risk management focuses on benefits, not just on cost, time and quality 2. Inadequate programme risk management business case 3. Inflexible programme risk management governance 4. Inadequate programme risk management strategy 5. No centralised programme office 6. Not understanding the business |
| 2 | Inadequate programme management standardisation | 7. Programme risk management definition-related issues 8. Inadequate programme management standardisation |
| 3 | Programme complexity | 9. Programme risk management process complexity 10. Interdependence of programme management, organisational strategic management and individual projects 11. Varying sizes of programmes 12. Running many programmes simultaneously |
| 4 | Inadequate programme risk management awareness | 13. Confusion between project and programme risk management 14. Low programme risk management awareness 15. Managing a programme in isolation |
| 5 | Inadequate programme risk management skills | 16. Inadequate programme risk management skills |
| 6 | Inadequate programme risk management knowledge | 17. Inadequate programme risk management standards, processes and methodologies 18. Scarcity of literature specifically for programme risk management 19. Inadequate programme risk management knowledge sharing |
| 7 | Inadequate programme risk management communication | 20. Inadequate programme risk management communication |
| 8 | Non-supportive programme risk culture | 21. Non-supportive programme risk management tone from the top 22. Non-supportive programme risk culture |
| 9 | Low programme risk management maturity | 23. Low programme risk management maturity |

- | | | |
|----|--|---|
| 10 | Inadequate programme risk management execution (new) | 24. Late involvement of programme risk management in programme execution 25. Inadequate programme risk ownership 26. Inadequate programme risk management process ownership 27. Inadequate programme risk life-cycle tracking 28. Programme risk management not aligned with other programme management processes |
|----|--|---|

Source: Adapted from Mulambya and Zaaiman (2021)

The ten programme risk management challenges, based on a review of the literature and interview data with programme management practitioners, are provided in Table 5.

Table 5: Programme risk management challenges based on the literature and the interview data

| No. | Theme | Description |
|-----|---|---|
| 1 | Inadequate programme risk management strategy | Inadequate commitment and planning for institutionalising programme risk management in an organisation, e.g.: <ul style="list-style-type: none"> • programme risk management focus on benefits, not just on cost, time and quality; • inadequate programme risk management business case; • inflexible programme risk management governance; • no centralised programme office; • not understanding the business. |
| 2 | Inadequate programme management standardisation | The terms programme and programme management are not standardised in the literature or in practice, leading to confusion about what programme management is. This is exemplified by: <ul style="list-style-type: none"> • programme management definition-related issues; • inadequate consensus on the basics of programme management. • Consequently, lower-level programme management processes, such as programme risk management, are inadequately defined. |
| 3 | Programme complexity | Programmes, by their nature, are expected to be complex, e.g.: <ul style="list-style-type: none"> • varying sizes of programmes; • many programmes are run simultaneously; • interdependence of programme management, organisational strategic management and individual projects. • Such issues complicate risk management in programmes. |

| No. | Theme | Description |
|-----|--|---|
| 4 | Inadequate programme risk management awareness | <p>Low familiarity with programme risk management, e.g.:</p> <ul style="list-style-type: none"> • low programme risk management awareness; • confusion between project and programme risk management, or treating project and programme risk management as being the same, or simply applying the project risk management process at a programme risk management level; • managing a programme in isolation, as one would do a project, thereby ignoring the strategic nature of project-based programmes. |
| 5 | Inadequate programme risk management skills | A shortage of experienced programme risk management resources to carry out relevant tasks or activities. |
| 6 | Inadequate programme risk management knowledge | <p>Frameworks, processes, procedures and guidelines specifically developed for programme risk management are difficult to find, e.g.:</p> <ul style="list-style-type: none"> • scarcity of literature specifically for programme risk management; • inadequate programme risk management knowledge sharing; • inadequate programme risk management standards, processes and methodologies. |
| 7 | Inadequate programme risk management communication | <p>Lack of accuracy, completeness or timeliness for programme risk reporting, e.g.:</p> <ul style="list-style-type: none"> • inadequate risk data aggregation methods or processes; • incomplete programme risk data; • lack of communication of programme risks. |
| 8 | Non-supportive programme risk culture | <p>The values, attitudes, beliefs and understanding about programme risk shared by employees of an organisation that create a non-supportive programme risk management environment, e.g.</p> <ul style="list-style-type: none"> • non-supportive programme risk management tone from the top. |
| 9 | Low programme risk management maturity | Programme risk management has not yet attained the level of maturity achieved by project risk management. |
| 10 | Inadequate programme risk management execution | <p>Programme risk management is poorly implemented and practised, e.g.:</p> <ul style="list-style-type: none"> • late involvement of programme risk management in programme execution; • inadequate programme risk ownership; • inadequate programme risk management process ownership; • inadequate programme risk life-cycle tracking; • programme risk management not aligned with other programme management processes. |

Source: Adapted from Mulambya and Zaaiman (2021)

Implications for risk management in infrastructure development

Most practical and theoretical development of project management has focused on single projects considered in isolation (Aritua et al., 2010). However, there is increasing acknowledgement that programme management provides a means to bridge the gap between project delivery and organisational strategy (Lycett et al., 2004). Many organisations perceive programme management as a framework that addresses the gap between an inward-focused and task-orientated view of projects, and the strategy-focused wider organisational view. Programme management provides a framework for structuring project work and relating project work to the strategic needs of the business. This paper describes challenges related to programme risk management as it supports programme management in executing strategic change. Project and programme management practitioners should be aware that programmes are not merely scaled up versions or extensions of projects or that programme management is an extension or variant of project management (Aritua et al., 2010; Pellegrinelli, 2010). This difference implies that project and programme risk management are different. It is important for stakeholders of project and programme management to be aware of these challenges when implementing strategic change.

5. CONCLUSION

This paper sought to review similarities between projects and programmes, and to explore programme risk management challenges as described in the literature and as experienced in practice in southern Africa, and to indicate the risk management implications of these differences for infrastructure development in the subcontinent. The paper started with a literature review to provide the differences between project and programme management based on the literature. It provides theoretical and practical insights into a field that is important for the southern African infrastructure development agenda, but where current knowledge appears inadequate to facilitate the switching from project to programme risk management. The findings of this study could assist in switching from managing single-focused projects in isolation to implementing strategic change through the awareness and knowledge of differences between projects and programmes, and the challenges of programme risk management.

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SAFETY CULTURE MISBEHAVING – TIME FOR CHANGE

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ABSTRACT

Over the last few decades, safety risk management has been built on increasingly more cumbersome and complicated systems. Notably, incident investigations include assessments of these safety systems with limited attention to culture and behaviours. While the safety systems approach significantly reduced accidents, a few major incidents in high-risk industries in the past decade blamed, amongst others, a “wrong safety culture”. The most striking increase in the behavioural safety literature since 2015 calls for a change in approach. The study reported here used an incident report where behaviour and culture were implicated as possible leading causes: the sinking of the BP Deep Water Horizon rig in 2010. A decade later, the authors have analysed this comprehensive report using a new sociotechnical safety questionnaire that represents the latest shift in safety investigations. Items related to safety systems yielded no additional insights into the incident, neither did the personal situation of workers help due to a lack of information reported. However, four categories of questionnaire items proved most useful to obtain new insights into the incident: perspectives of the workers’ own experiences, of colleagues, of management and lastly of taboo topics such as fear, judgements, blaming and hiding of critical information. A “do-not-go-there” culture driven by management resulted in inadequate communication on key risks identified by experts. This study highlights individual behaviour and group culture concerns in several job positions in contrast to what was reported in earlier accounts. These include the role of contractors where they constituted most of the workforce, the role of technical experts that dealt with major uncertainty yet remained outside standard procedures, and the actions of management driven by cost and time constraints to the detriment of safety. The sociotechnical safety questionnaire creates the opportunity for future incident investigations to follow a new line of inquiry to improve analyses of cultural and behavioural causes of safety incidents.

Keywords: safety systems, compliance, behaviour, culture, pressure

1. INTRODUCTION

Safety risk management has for many decades been built on increasingly more cumbersome and complicated systems (Kant, 2017). While these safety systems significantly reduced accidents (Xia et al., 2020), understanding safety behaviour as part of human behaviour is emerging as the next opportunity to reduce accidents. As a result, most investigations of safety incidents in the last 20 years ascribe some of the causes to what is called “wrong safety culture” or a “non-compliance culture” (Hodgson et al., 2013; Leveson, 2013). However, except for naming the deficiency in understanding as the role of human behaviour, the focus of incident investigations and corrective action remained focused on management systems and technology.

In recent years, however, a steep increase in the academic literature appears to describe human safety behaviour specifically. The past five years has seen the emergence of papers analysing the antecedents of safety behaviour (Hu et al., 2020). High-risk industries such as the petroleum and nuclear sectors have also developed detailed assessments of safety systems and controls in the workplace, including the role of behaviour (Dahl & Kongsvik, 2018; Mazlina Zaira & Hadikusumo, 2017; Zhang et al., 2019). Other papers focus exclusively on expected behaviours such as compliance as per the training manual and try to understand why there are deviations from these expected behaviours (Corrigan et al., 2020; Hu et al., 2020).

Do recent publications on behavioural safety and antecedents of behaviour provide new insights into old incident investigations? The lack of attention to safety behaviour posed a challenge to incident investigations in the past. The advent of novel assessment tools of culture and safety culture (Dekker, 2015; Dekker & Breakey, 2016; Hofstede & Minkov, 2013; Hofstede, 2015), and more specifically increased numbers of publications on safety behaviour (Corrigan et al., 2020; Hu et al., 2020), provide an opportunity to revisit past incidents with these newly developed tools.

The objective of the study reported here was to determine if recent behavioural safety questionnaires, as developed since 2015, will add new insights into the BP Deepwater Horizon oil drilling incident that occurred in the Gulf of Mexico in 2010, as described by Ingersoll et al. (2012).

2. LITERATURE REVIEW

Technical systems

The study of safety-related technical systems has been well established since the 1950s (Kant, 2017; Rasmussen, 1986), with an initial focus on safety engineering controls, supplemented in later decades by culture studies (Rasmussen et al., 1990). Since the 1980s, organisations implemented increasingly more extensive management systems to formalise the technology, compliance, and structures in their businesses (Leveson, 2004a; Schulman, 2020), which has become the major focus of safety management. Technical systems remain an important element of safety, especially in the age of automation. Building on incident investigations at NASA and Boeing, as well as refinery incidents such as the Texas BP refinery explosion in 2005 in the USA, Leveson et al. (2003) developed six elements that play a role in reducing the risk of events materializing. These elements range from the national government policies (the “blunt end”) to the

plant equipment where the accident happens involving an operator (the “sharp end”). The elements refer to the “written down” processes that exist and are mainly technical focus areas, which are usually addressed in safety incident investigations.

High-risk industry

High-risk industries, which have a rich history of incident reports, are mainly in the aviation, space, shipping, nuclear, chemical, mining and petroleum sectors. These high-risk industries are often used as sources of case studies where significant mishaps were recorded in recent decades (Leveson et al., 2003). High-risk industries have been leading the development of advanced safety management systems due to their focus on incidents and fatalities. Industries are not only exposed to the physical nature of their activities, such as high pressures, high temperatures and fast-moving equipment, but also their exposure to the natural environment from extreme weather events and other natural disasters. The traditional focus on management systems has been successful in reducing trips, falls, electrocution and other safety risks. However, a few, large-scale recent incidents remain a concern in industry, such as the Fukushima Daiichi nuclear disaster (Synolakis & Kânoğlu, 2015), the crashes of two Boeing 737 MAX aircraft in 2019 (CNN, 2020; Cruz & de Oliveira Dias, 2020) and the sinking of the Deepwater Horizon oil-drilling platform (Hollnagel et al., 2015; Leveson, 2013) in the past decade.

Social systems

Although Rasmussen (1997) and Leveson et al. (2003) focused strongly on knowledge and understanding of the tolerances in technical systems (Schulman, 2020), the actions of people have been cited increasingly as being the leading causes of incidents (Dekker and Breakey (2016). Hodgson et al. (2013) confirmed that three elements are important in safety practices: situational awareness, decision making and intra-team communication. More details of behavioural practices are provided by Marais et al. (2006), who used system dynamics to describe six safety system “archetypes” that result in flaws in safety processes over time:

- Management leadership roles such as the setting of goals and the tone-from-the-top serve as classic examples of behaviour in practice.
- Commitment by workers and leadership, also called capability and willingness by Schulman (2020), also appears useful to explain practices in safety management.
- Situational awareness, also called mindful safety practices by Dahl and Kongsvik (2018), is about knowing what is going on all around the worker in the workplace.
- Decision making is about taking capable and willing decisive action at critical times, when the worker takes a decision to act, to do nothing, or to wait.
- Communication requires the ability to communicate clearly and to the right people; when the decision to act or not to act is conveyed to colleagues, seniors or subordinates.
- Compliance emerges as a last practice of importance. Hu et al. (2020) distinguish between “deep” compliance, which has the intent to maintain workplace safety at all costs, as

opposed to surface compliance, which merely meets organisational requirements, with the simple tick-box exercise of audits as an example.

These archetypes are often listed as causes of safety incidents without further analyses to understand the prevailing culture or behavioural antecedents of this behaviour.

Pressure to perform

The pressure management imposes on subordinates to improve efficiency, and the constraint on workers to meet organisational and manufacturing goals, drive operations closer to the unsafe zone as far as safety is concerned (Casey et al., 2017; Rasmussen, 1997). Dekker and Breakey (2016), citing McDonald et al. (2002), found that within the aviation industry, up to 30% of procedures were violated and not compliant, since workers struggled to keep up with production pressure and getting the work done. Irreconcilable goals and pressures have been described as mainly arising from demands to either achieve financial savings or improve performance (Morel & Chauvin, 2006).

Examples of the multitude of pressures facing the worker today include the reduction of people in the workplace that leads to more responsibility being placed on the remaining employees (Hodgson et al., 2013). Automation and artificial intelligence are used to replace workers and rapidly change the technology in the workplace, which the workers either love or hate (Hodgson et al., 2013; Waterson et al., 2017), often causing fears regarding the technology (Berglund, 2016). Increasing system size and complexity leave workers with increasingly more regulations and procedures to be complied with (Leveson, 2004b). In addition, the need to make profits and reduced budgets put pressure on employees (Morel & Chauvin, 2006). Likewise, bonuses, incentives, fines and penalties influence the worker's decision making and affect outcomes (Hofstede, 2015). Personal motives of individual actors (Schöbel & Manzey, 2011), transferred from the leadership to the workers, are not always aligned with the objectives of the organisation, pointing to a concern about leadership guidance and clarity.

Complex systems

Increasingly, safety is viewed as involving a classic complex system (Waterson et al., 2017). The complexity arises from not only engineering factors in the system, but also from social and organisational aspects, software errors and human errors, and the learning that occurs over time that has to be considered (Leveson, 2004a). Recent incident investigations revealed a shift beyond the traditional cause-and-effect (linear) approach to diagnose these events with a simple "root cause" and a single "event" (Leveson, 2004a). The shift towards analyses of complex systems, to understand interrelated events and causes of incidents that are non-linear, includes feedback loops as described by Marais et al. (2006). Perfectly functioning relationships between parts do not guarantee success when the environment changes (Weber & Dekker, 2017). Artificial intelligence and the automation of processes has assisted in reducing the role of the human element and in aiding the design of safe technologies. However, the question remains whether complex technical systems can be operated safely if human role players are involved. The high level of dependence on appropriate human interventions was raised in a case study of the Bhopal chemical plant

incident that killed several thousands in India in 1984 (Ayres & Rohatgi, 1987), but the concern has not yet been addressed since.

Culture and behaviour

An insufficient focus on behaviour and culture in industry has been recognized as a growing concern by Rasmussen (1986). Since the 1990s, culture and workplace climate studies increasingly appeared in safety investigations. Dahl and Kongsvik (2018) summarized the broad body of knowledge about technologies, regulations and structures and stressed the importance of safety culture that has a positive relationship with the safety behaviour of employees in high-risk organisations. The size and extent of safety systems designed to enforce compliance are the result of a national and organisational culture, as well as of the type of risks under management.

Reason (1998) stated that safety culture is about the organisation's understanding of the importance of safety, more specifically the underlying beliefs and assumptions that influence decision making and behaviour. Behaviour-based safety as a systems approach has been in use since the 1970s, but beyond systems the underlying behaviours, omitted communication or aspects visible in symbolic actions is receiving attention since. Guldenmund (2000) provided a layered description including fundamental assumptions about safety, combined with espoused values and attitudes, and artefacts as manifested by behaviour. Even physical symbols such as safety posters, billboards, flags and signage express the value ascribed to safety. The terms safety climate and safety culture are often confused in the literature (Casey et al., 2017; Guldenmund, 2000). Safety climate is more often described as the features on the surface that are more easily changed than culture (Casey et al., 2017). Hodgson et al. (2013) provides context for non-technical system variables, by describing the influence of the Hofstede et al. (2010) national and organisational traits on the accident rates of sociotechnical systems. Hofstede (2015) wrote that the word "culture" describes the sharing of perceptions, values or practices as change self-organises while work happens.

The work of Kemper et al. (1984) added the essentials of relationships in groups considering the dynamics of status and power, that are also important in safety. By these authors' definition, power implies the ability to overcome the resistance of others to complying, whereas status refers to compliance that actors accord each other, without threat or coercion. Newer fields are emerging such as resilience engineering and, according to Casey et al. (2017), these tools attempt to incorporate sociotechnical systems thinking into investigations to prevent accidents.

Actual workplace behaviours

To assess the human elements associated with safety incidents, the dimensions from Dekker and Breakey (2016), and described in more detail by Dekker (2015) are useful. Although called "culture" by Dekker, for the purpose of this article these cultures were reinterpreted to develop a scale of extreme behavioural responses that becomes visible in a cultural context. The definition of "cultures" was modified for this study and can be described as follows.

- Engaged culture or controlled fears are required in dangerous safety situations. While fear

can induce positive action, on the extremes it can also result in extreme behaviours, from cowardice to recklessness.

- Flexible cultures should allow for balancing priorities between production on the one hand and safety on the other, a trait that becomes essential in most safety-critical workplaces. Knowing when to stop production for the sake of safety requires such a flexible culture. Pressure to produce is widely described but often overlooked in safety incident investigations (Dekker, 2015; Hodgson et al., 2013; Weber & Dekker, 2017)
- Just culture refers to a culture where judgement is seen by the worker to be just, especially in assessing complex systems such as safety. A just culture is fair, while on the extremes judgements could range from being too forgiving, where actions have no consequences and repeat themselves, to judgement being too harsh for common mistakes. Judgements to distinguish between human error, at-risk behaviour, and reckless action can help clarify what happened during investigations.
- Reporting culture. Useful reporting of incidents, mistakes and near misses is an ongoing challenge in many organisations. Prior to incidents, telling is often limited by hiding crucial information just to look good. After incidents occurred, learning should be the ideal approach during investigations but blaming comes to the fore. Perceptions on how interviewees will be judged often result in these natural responses by interviewees to hide information or blame others.

Leveson (2004a) avers that 70–80% of all industrial accidents are blamed on human error, while specifically in the aviation industry Pettersen et al. (2010) states that almost 80% of major civil aviation accidents involving fatalities and hull loss have a significant contribution from the ‘human factor’; others have lower estimates of 50:50. Since the 2000s, safety risk management has advanced from a strictly technology focus to the more recent shift towards an integrated sociotechnical systems approach (Casey et al., 2017). The realization has emerged that a combination of both sociological and technical systems is ideal over time (Dekker & Breakey, 2016). The greater responsibilities given to smaller workforces because of cost savings places greater responsibilities on the remaining few to manage increasingly larger and more complex systems, with more procedures, regulations and technology.

On 20 April 2010, the Deepwater Horizon rig exploded and sank, resulting in the Macondo oil spill which impacted many: 11 deaths and 17 injuries were recorded with massive ecological consequences. Moreover, BP lost five million barrels of oil valued at \$374 million and had to pay around \$20 billion in fines and compensation for impacting the energy, fishing, shrimping and tourism industries. The incident occurred in a country, the United States, where safety management systems and environmental legislation are leading the world. It was the largest marine oil spill in the history of the petroleum industry and is the topic of this study.

3. METHODOLOGY

Research design

This study involves qualitative document analysis. We reviewed the BP Deep Water Horizon incident of 2010 as an exploratory case study in the high-risk industrial sector, by considering the review prepared by the MIT Sloan School of Management under Ingersoll et al. (2012). That study extensively reviewed available investigations following the incident and summarized these in a 28-page report, which was used as the basis for our assessment. Many of the investigations of the Deepwater Horizon incident have detailed reports available on the causes of the event and are cited extensively in the source document of Ingersoll et al. (2012), including direct quotes from employees.

Analyses

To evaluate the report, we used a sociotechnical safety questionnaire (Goede & Hofstede, 2021) that was based on recent papers representing the latest shift towards considering elements of behavioural and culture items, in addition to the standard safety system items. We analysed the incident with the safety questionnaire that was developed based on six recent papers (Corrigan et al., 2020; Dahl & Kongsvik, 2018; Hofstede & Minkov, 2013; Hu et al., 2020; Mazlina Zaira & Hadikusumo, 2017; Zhang et al., 2019), to assess safety management. The safety questionnaire items are summarized in Table 1.

Table 1. Categories and examples of items used by Goede and Hofstede (2021).

| Category of items | Examples of items |
|----------------------------|---|
| Demographic information | Gender, age, education, years of experience in the position and the kind of role in the organisation. |
| Safety systems | Safety audits, safety policies, safety procedures, written safety documents that exist on paper. |
| Own experiences | Own knowledge of safety, understanding of safety risk and how easily the participant reports safety non-compliances. |
| Perspectives on colleagues | Colleagues reporting safety concerns, colleagues following procedures and colleagues assessing work safety. |
| Perspectives on management | Importance of safety to management, management investment in safety (time and money), management feedback to employees. |
| Vignette taboo topics | How well the participant deals with fears, judgements, priorities, transparency, blame, hiding and learning. |
| Personal situation | Views about social status and health, importance of pay, bonus, stress levels, and the importance of friends and having time for fun. |

The result is an interpretive approach from inside-out, using hearings and direct quotes from the hearings after the event, combined with a functionalist interpretation from the outside, looking at the event (Dekker, 2015). By using the latest questionnaire items, we hope to establish if any new emergent phenomena surface, when revisiting the earlier incident investigation report with a new tool.

First, the demographic items are questions common to most safety questionnaires. Second, items

were posed about the safety system that had been implemented in the organisation – also compromising the bulk of safety system questionnaires used in the past. Then, a third set of questions pertained to own experiences in the workplace, the “I” questions, followed by, fourth, views about “my colleagues”. A fifth category of items was about “management”. The sixth section was in the form of vignettes, which were applied to test taboo topics such as fears, priorities, judgement and learning, hiding or blaming behaviours derived from an excellent paper by Dekker and Breakey (2016) on culture: common no-go areas during incident investigations. The last category included items of a personal nature and were adapted from the Hofstede and Minkov (2013) Values Survey Module questionnaire. We searched for and tabled citations from the report by Ingersoll et al. (2012) that indicated that the line of questioning was used by them. Second, we indicated if this was a focus area of the incident report, before, thirdly, indicating if the items would be useful in future reports, to expand the inquiry towards cultural and behavioural aspects.

4. RESULTS AND DISCUSSION

The analyses below provide quotes from the source document for each category of items, followed by a description of the results of the investigation.

Table 2. Demographic information.

| Quote from report by (Ingersoll et al., 2012) | Incident investigation focus? | Items helpful in future? |
|--|---|--|
| p.9 “Adding to the complexities of decision making on the Deepwater Horizon was the fact that many of BP’s decision makers for the Macondo well had only been in their positions for a short time before disaster struck.” | Yes, the duration in positions was noted. | Yes, but requires interpretation to add value. |

The duration that the five key BP decision makers were in their job positions varied from 4 days, 18 days for two others, 3 months, to 6 months, the maximum duration, respectively (Ingersoll et al., 2012). It is not mentioned in the report if this contributed to uncertainty in decision making, nor whether it was further investigated. In future, the focus on language and gender in safety questionnaires can help investigators when studying a diverse workforce to understand the underlying cultural and behavioural challenges faced by workers.

Table 3 provides two examples of answers to the questionnaire related to safety systems. It is assumed that safety systems existed and were implemented; these are seldom mentioned in the incident reports despite comprising the key focus of safety work. Workers knew the standard procedures, such as how to jump from the rig. The questions related to the safety systems provided little help in understanding the incident but are assumed to eliminate most other safety incidents and why this rig performed so well over 10 years (before its catastrophic collapse). Another example of a safety system deficiency is where alarms are bypassed to allow work to continue. This happens when technical controls such as alarms are designed without consideration of the

workers who need time to sleep on the rig. The safety items in our questionnaire confirmed limitations in the safety system but yielded few new results in addition to what was already reported.

Table 3. Safety systems.

| Quotes from report by Ingersoll et al. (2012) | Incident investigation focus? | Items helpful in future? |
|--|--|---|
| <p>p.1 “Mike Williams already knew the standard procedure for jumping from a 33,000-ton oil rig: ‘Reach your hand around your life jacket, grab your ear, take one step off, look straight ahead, and fall.’”</p> <p>p.1 “Gas levels had been running high enough to prohibit any ‘hot’ work such as welding or wiring that could cause sparks. Normally, the alarm system would have gone off with gas levels as high as they were. However, the alarms had been disabled to prevent false alarms from waking people in the middle of the night.”</p> | <p>Seldom, almost nowhere referred to.</p> | <p>No. Assumed that the standard safety systems are in place.</p> |

Table 4. Own experiences.

| Quotes from report by Ingersoll et al. (2012) | Incident investigation focus? | Items helpful in future? |
|--|--|--|
| <p>p.6 “BP took several safety actions in response to the BP Texas City refinery explosion in 2005 as recommended in the Baker Report, related to leadership visibility, review of employee concerns, auditing and resources for plant, equipment and systems.” Yet, “between June 2007 and February 2010, 97% (829 of 851) of the wilful safety violations by an oil refinery handed down by the Occupational Safety and Health Administration went to two BP-owned refineries in Texas and Ohio.”</p> <p>p.8 “The crew had to be adept at developing workarounds to maintain the function of the rig. ... the three oversight computers that controlled the drilling technology... would frequently freeze. Williams frequently reported the software problems and the need to have them fixed.”</p> <p>p.15 “Walz wrote a lengthy email to Guide, the Macondo well operations manager, expressing his concern about using just six centralizers.” Guide revealed that no one had considered postponing or putting a stop work order on the cement job until centralizers of the right kind were located.”</p> | <p>Yes, extensively. Emails cited between managers clearly indicate that technical risks were analysed in detail, and workers reported their concerns.</p> | <p>Yes, especially items related to the importance of production as opposed to safety, and items dealing with behaviour.</p> |

Testimonies in Table 4 illustrate that interviewees were able to report their safety concerns and felt knowledgeable about their expertise, supported by a near-perfect injury safety record. It was known that safety is important and key players reported concerns. However, items such as stop work when unsafe, was not an option due to time and cost constraints. Other short-cuts were also exposed, for example, to check the integrity of the cement job; mud circulation was completed in only 30 minutes instead of a recommended 6–12 hours.

Table 5. Colleagues’ perspectives.

| Quotes from report by Ingersoll et al. (2012) | Incident investigation focus? | Items helpful in future? |
|--|---|--|
| <p>p.1 “British Petroleum (BP) held the rights to explore the well and had leased the rig, along with its crew, from Transocean.”</p> <p>p.1 “Of the 126 people aboard the Deepwater Horizon, 79 were from Transocean, seven were from BP, and the rest were from other firms including Anadarko, Halliburton, and M-1 Swaco, a subsidiary of Schlumberger.”</p> <p>p.9 “While the process of closing a well is always complex, closing the Macondo well proved particularly so due to competing interests of cost, time and safety, as well as the number of people and organizations involved in the decision-making process. As one example, 11 companies played a role in the construction of the casing for the Macondo well, all with different responsibilities for various aspects of setting the well.”</p> | <p>Yes, challenge in communication pointed out.</p> | <p>Yes, but clarify distinction between full-time owners and contractors, which influences behaviour on the rig.</p> |

Although BP held a financial share of 65% in the drilling project and overall responsibility for the project, only 5.6% of employees on the rig represented BP (Table 5). This illustrates the limited appreciation by BP for the human role in responsibilities for shareholding and incidents. Of Deepwater Horizon’s total of 126 employees, it can be assumed that the 79 from Transocean played a larger role in the safety culture on the rig than the seven senior BP managers.

Clearly, every day on the rig counted (\$1million per day; Table 6) and streamlined daily decision making, which strongly influenced the lack of a safety focus. When procedures did not exist, experts were called in by management, who reported their concerns. However, such risks were underreported by management and experts’ model results were questioned, until the faster and cheaper options were implemented.

Table 6. Management perspectives.

| Quotes from report by Ingersoll et al. (2012) | Incident investigation focus? | Items helpful in future? |
|--|--|---|
| <p>p.3 “Between 2006 and 2009, BP’s workforce fell from 97,000 to 80,300. In addition to cutting four levels of management, Hayward also spoke publicly about his desire to transform BP’s culture to one that was less risk averse. ‘Assurance is killing us,’ he told U.S. staff in September of 2007.”</p> | <p>Yes, mainly management interview transcripts exist.</p> | <p>Yes: learning and the importance of safety is neglected, while the importance of production is stressed.</p> |
| <p>p.4 “One trade-off with the asset federation model was that because each site manager managed their ‘asset’ autonomously and was compensated for its performance, there was little incentive to share best practices on risk management among BP exploration sites.”</p> | | |
| <p>p.8 “Transocean charged BP approximately \$500,000 per day to lease the rig, plus roughly the same amount in contractor fees. BP originally estimated that drilling the Macondo well would take 51 days and cost approximately \$96 million. By April 20, 2010 the rig was already on its 80th day on location and had far exceeded its original budget.”</p> | | |

The quotes in Table 7 point to a lack of a transparent culture and those facts were hidden when major risks were presented in specialists’ model results, which were not communicated to rig workers. Amongst others, pressure to save costs and time, but not to acknowledge safety, is apparent. Little learning was observed from the preceding BP Texas Refinery explosion (2005) and the BP Alaska Prudhoe Bay spill (2006). A culture of blaming continued, as well as hiding of critical information driven by a “do not go there” culture from management, during the incident and even in subsequent investigations, affecting communication. The vignettes could guide investigators to explore these taboo types of behaviour for a deeper insight into the causes of incidents.

Table 7. Vignette taboo topics.

| Quotes from report by Ingersoll et al. (2012) | Incident investigation focus? | Items helpful in future? |
|--|---|---|
| <p>p.15 "... after Guide and Walz decided not to use the additional centralizers, Gagliano sent the formal report of the OptiCem results as an email attachment to the Macondo well management team.</p> <p>Page 18 of the report included the following observation: ‘... this well is considered to have a SEVERE gas flow problem...’ However, the text of the email that Gagliano sent to the BP managers on April 18 did not say anything about the hazards of the Macondo well.”</p> | <p>Yes, but limited. The reasons for hiding information and blaming others were little explored by investigators.</p> | <p>Yes. Notably vignette questions on e.g. fears, perceptions on judgements, importance of cost, time pressure.</p> |

Table 8. Personal situations.

| Quotes from report by Ingersoll et al. (2012) | Incident investigation focus? | Items helpful in future? |
|---|--|---|
| <p>None.</p> | <p>No, very limited information available to assess.</p> | <p>Yes, description of personal situations could help explain the behaviour of workers.</p> |

State-of-mind issues of workers such as personal problems, financial difficulties, and health status could all distract from work focus and situational awareness and can result in even less time available for crucial decision making, which was critical in the Deepwater Horizon case. However, the value in personal information is not so much in incident investigations themselves, but rather before incidents that occur as major incidents could alter personal perspectives significantly, afterwards, resulting in hindsight bias of both the authors of the report as well as ourselves as researchers. Except for the lack of a learning culture in the context of previous process safety incidents, the word “culture” appears in the conclusion only as a suggested topic for further examination, in an otherwise very technical report by Ingersoll et al. (2012).

BP considered the incident as the result of a linear series of safety breaches that eroded layers of defence and identified eight technical issues. For example, when stating that the cement barrier did not isolate the hydrocarbons, the conclusion sounds very technical, yet the behavioural questions remain, such as who knew about it, where was it reported, what was done about it and what the prevailing workforce culture was like to manage such a risk.

5. CONCLUSION

Despite the risk of hindsight bias (Dekker, 2015), this study opens new avenues to understand cultural and behavioural challenges in safety investigations. The report by Ingersoll et al. (2012)

on the BP Deepwater Horizon disaster of 2010 was assessed using a more recent cultural safety questionnaire by Goede and Hofstede (2021). The results highlighted that the individual behaviour and group culture in the following roles can be questioned:

- Technical experts can overturn all the safety efforts of most employees implementing safety systems by expert opinion without considering safety.
- Ownership of the risk was insufficient, where only six BP workers were present out of the workforce of 126 employees, including 119 contractors from several companies. Hence questions remain as to which “culture” ruled on the rig, how well information travelled among workers and how ownership affected behaviour.
- Management that can overrule technical expert opinions and models to suit their cost-reduction and expediency agendas. An organisation’s reliance on the expert opinion of a few may make decision making prone to undue influence by management.

A vignette approach has highlighted several taboo topics that were inadequately covered in the incident reports. For example, the hiding of critical information prior to the incident prevailed, while after the incident the blaming of other parties increased. Although natural responses, learning and telling the truth are preferred. The preference given to budget and deadlines over safety was prevalent throughout the incident and subsequent investigations. Personal situations can also influence behaviour and contribute to incidents. However, since these are not reported in any detail in the 2012 report, the assessment does not allow conclusions on their value from this investigation of the incident.

Overall, a deep focus on technical failures (process safety) is apparent from the Deepwater Horizon investigation and underplays the fact that technical oversights are also social constructs, designed by people. We support the recommendation cited from the BP report (Ingersoll et al., 2012), indicating that incident investigations need a more inclusive approach, and that the role of culture and behaviour must be studied in much more detail to understand the relationship between workers and contractors, amongst others. Further quantitative research applying the questionnaire approach to a recent incident will improve visualization of results. Our study recommends that future investigations of such incidents follow a new line of inquiry to improve analyses of cultural and behavioural causes of safety incidents.

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A RISK CULTURE COMPARISON OF RISK PRACTITIONERS AND BUSINESS MANAGERS IN A TELECOMMUNICATIONS COMPANY LEADS TO ACTION

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ABSTRACT

Risk culture relates to the understanding of risk management as well as to mitigating the negative effects that events can have on reaching the objectives of an organisation. Organisations can be perceived by auditors and stakeholders, among others, as risk-immature. In this study, the reasons for risk-immaturity in one company were investigated and are reported. In an action research study, an online survey was conducted on a population comprising two independent groups, risk practitioners and business managers, at relatively junior levels in the business, to establish the perceived risk culture, as well as to determine if there were possible factors contributing to the level of risk culture that existed. The risk culture maturity of both groups was found to be high, but significant differences were observed for their understanding of risk. The results showed that in order to improve risk management in the organisation, the following needed to be addressed: responsibility and accountability for its practice; risk communication; risk training and awareness. The outcomes of the survey were subsequently used by the company to introduce measures to improve its risk management. One year later, its risk culture was again evaluated by means of an on-line questionnaire. The purpose of this subsequent investigation was to gather data and report on the risk management opinions of stakeholders after making changes to company practice since the initial survey. The follow-up survey showed that key success factors for risk management had to be introduced at junior organisational levels and that the risk culture of an organisation can improve over time with appropriate interventions.

Keywords: risk culture; action research; risk awareness; risk understanding; risk training; junior levels

1. INTRODUCTION

In the organisation reviewed, the perception existed that business managers understand risk management. However, the company was rated as risk-immature in an external audit of its risk

maturity because risk management had not been fully embedded in business procedures and processes (PWC, 2014). According to this survey, there was a lack of buy-in into risk management processes and the risk department had not succeeded at the time of the survey in showing the value of risk management. Furthermore, there was little collaboration between business managers and risk management practitioners, and the risk awareness of more junior staff members was almost non-existent. Moreover, risk concepts were introduced into the workplace without clarity about how they should be interpreted. Culture was not a new concept in the organisation, but a question to be addressed was: did all stakeholders understand what was meant by “risk culture”? Similarly, risk management was not new, but not all terminology was standardised when separate risk management departments were established.

In order to address the reported shortcomings in the company studied here with regard to the integration of risk management into its business, it was important that risk practitioners as well as business managers shared the same understanding of risk culture. Risk culture should be entrenched in business practices. Kunz and Heitz (2021) support this view. In their comprehensive literature review to consolidate research performed on how to improve risk culture in the banking sector, they concluded that all management control systems should support the desired risk culture. Furthermore, the level of understanding of risk management concepts and risk management in general needed to be established in the company under review here.

It was the responsibility of the enterprise risk management department to promote risk culture and risk management awareness in the organisation. The limitation of this approach was that it was driven by people who have a strong bias towards risk management, which was already entrenched in their way of talking, doing and thinking. This posed a challenge to business managers who did not have that same orientation. The starting point of the research reported here was to gauge and compare the risk culture between risk practitioners and business managers. The questionnaire used for this purpose aimed to establish how the different personnel understood and applied risk management and risk management concepts. Respondents could indicate also what type of training they required as well as what level of risk information they preferred to receive. Kunz and Heitz (2021) also highlight the importance of training and communication in the process of enhancing risk culture. After an initial study that assessed the state of risk culture between the two study groups and reported here, the results were used to implement measures to improve the risk culture. In a follow-up study, the plan was to investigate if the risk culture between risk practitioners (directly involved in risk management) and business managers (indirectly or not involved in risk management) had improved and also to investigate the effect of the measures on risk culture awareness and understanding in the organisation.

2. BACKGROUND

The research reported in this article was conducted in a listed South African telecommunications company, which has an African footprint. The majority shareholder is based in the United Kingdom and has a global footprint. Over 8 000 people are employed by the company. The core business is telecommunications, but in order to remain competitive, more focus is being placed on

alternative technologies to support the numerous services also offered. The organisation has well-established oversight structures for risk management, has a chief risk officer and a dedicated enterprise risk management department. Risk assessments are performed at various levels in the company, although the focus of these assessments is not at the organisational level as reported on in this article. An in-house research project was most appropriate for the following reasons: The original study could be completed in a short time with minimal cost involved and the cooperation of many employees was possible (Zikmund et al., 2013). The survey was conducted when some areas of concern arose out of one of the authors' responsibility as a risk manager. The original concerns were defined and then converted into research objectives.

The first area of concern was the potential lack of understanding of risk culture in the organisation. A second concern was whether the risk culture was the same across the organisation, especially as perceived by risk practitioners and business managers. A further concern was the presumed difference in understanding of risk management between risk practitioners and business managers in the organisation. The online survey not only included items about risk culture, but also some to test whether there was a similar or different understanding of risk management by the two groups in the company. Lastly, a concern about how to close the possible gap between risk practitioners' and business managers' understanding of risk culture and risk management was addressed by inviting recommendations for the purpose from both groups.

These concerns were translated into the following initial research objectives:

- Analyse the risk culture of risk practitioners and business managers.
- Compare the results of the risk culture survey between risk practitioners and business managers.
- Analyse the understanding of risk management by risk practitioners and business managers.
- Recommend approaches or actions to be taken to address any differences in understanding and training needs communicated by the respondents.

3. LITERATURE REVIEW

Risk culture forms an integral part of the culture of an organisation. Research has been conducted continually to attempt to provide the empirical evidence that risk culture and risk management are complementary and not substitutes for each other (Kanu, 2020), and that there is a direct relationship between risk culture and the ability to implement risk management in an organisation according to Wong et al. (2020). In their research, Kummerow and Kirby (2013) worked on the basis that organisational culture describes the unique personality and attributes of an institution related to its appearance, behaviour and beliefs. According to Vazquez (2014), culture was often to blame when security breaches or risk management breakdowns occurred. He claims that culture was identified as the reason behind a failure, to share unpleasant or difficult messages with leadership and for establishing the wrong incentives in an organisation. Culture seems to be a convenient excuse that everyone seems to understand and accepts when the precise cause of an adverse event cannot be identified clearly.

An organisation is a socially constructed environment that consists of individuals, committed to working in relation to meeting organisational objectives (McNiff, 2017; Stringer, 2013). Organisations are known to have their own culture. Hofstede et al. (2010) define culture as the collective programming of the mind to distinguish the members of one group or category of people from others and Alvesson (2012) declares that culture is best understood as referring to deep-level, partly non-conscious sets of meanings, ideas and symbolism. In his work on organisational culture, Schein (2004) believes that culture is established when a group has enough common experience and that a cultural group has a shared purpose, tactics, strategies and metrics. Schein (1999) explains also that even though culture is an abstract concept, it can put real and powerful forces in motion. Leaders should be aware of the fact that they are instrumental in managing organisational culture and guiding change in that culture (Oreg et al., 2018; Schein, 2010).

Risk culture

Banks (2012) describes risk culture as "...a state where risk management processes are so intuitive and so embedded in the fabric of an institution that they exist subconsciously and are practiced as a matter of course." The Institute of Risk Management South Africa (IRMSA, 2014) defines risk culture as "... the overall behaviour of all employees in how they view, handle, manage and communicate about risk." Risk culture has a very specific focus. It plays a critical role to ensure that effective risk governance endured even in times of organisational change. Supervisors focus on an institution's norms, attitudes and behaviours related to risk awareness, risk taking and risk management, or its so-called risk culture. How decisions are made is a key component of risk culture according to Fraser and Simkins (2010). The risk culture of an organisational group is manifested by the importance given to considering risk when the group makes decisions. The level of explicit inclusion of risk in decision-making represents the implicit, subjective value afforded to risk by the group (UARM, 2018).

In one of the McKinsey Working Papers on Risk, Levy et al. (2010) asserted that failures such as fraud, safety breaches and operational disasters, amongst others, had their origin in flaws in unique organisational cultures that allow particular risks to take root and grow. According to them, a strong risk culture demonstrates several critical and mutually reinforcing elements:

- a clear and well-communicated risk strategy;
- high standards of analytical rigour and information-sharing across the organisation;
- rapid escalation of threats or concerns;
- visible and consistent role-modelling of desired behaviours and standards by senior managers;
- incentives which encourage people to "do the right thing" and think about the overall health of the whole institution; and
- continuous and constructive challenging of actions and preconceptions at all levels of the business.

A risk culture is all about behaviour and the processes that are put in place to encourage and reinforce desired behaviour (Fraser and Simkins, 2010). Sheedy and Griffin (2018) confirmed that

risk structures are affected by the risk culture of an organisation and that all levels of managers should be involved in improving this culture. Levy et al. (2010) conclude that it is vitally important that organisations actively shape a risk culture in which their inherent risks are being managed and run.

Understanding risk and risk management

Risk management is what will ensure that the company's objectives are met. In order to avoid risk management being simply a "tick-the-box" exercise, it is vital that an effective risk culture is established. Only then will risk management create true value for the business (IRMSA, 2014). To provide further context one needs to understand the definition of risk and risk management. For the purposes of this study, it will suffice to use the ISO 31000 definition of risk as "the effect of uncertainty on objectives" and the definition of risk management as "coordinated activities to direct and control an organization with regards to risk" (ISO, 2009b).

Risk culture should exist consistently at all levels in the company. In its guidance for practitioners handbook, issued by the Office of Government Commerce (OGC, 2002) in the United Kingdom, the very first paragraph in the section about embedding risk management starts with what is needed to create a sustainable risk culture, and that it should be delegated to all levels in the organisation. Banks (2012) stresses the importance of responsibility and accountability for risk and that leadership in the organisation should reflect the fact that risk management is ultimately everybody's concern. The essence of culture and therefore also of risk culture is that there must be a group of people involved. If an entity wants to place the emphasis on a particular kind of risk culture, the company will have to place some emphasis on understanding what that risk culture entails. It is therefore important that risk practitioners as well as business managers share the same understanding of risk, risk culture and risk management. As pointed out by Fraser and Simkins (2010) and Sheedy and Griffin (2018), a risk-aware culture must extend throughout the organisation, to all levels and all individuals who contribute to decision-making. Therefore, risk management should be entrenched in business practices (Kunz & Heitz, 2021). Communication should be clear and convey the undiluted message from top management right through to the junior workforce. Risk management is important for an organisation that wants to maximise its ability to protect and create value, and to ensure proper corporate governance (IRMSA, 2014).

4. METHODOLOGY

In their study about organisational risk propensity, Harwood et al. (2009) highlighted the importance of being able to measure risk propensity (or risk culture in the context of this study) in companies because it influences the way decisions are made. If risk culture challenges are clear, corrective measures can be implemented. Iyer and Rogers (2010) analysed seven instances in ten academic studies which focused on senior or executive levels of risk management, for example, risk managers, the chief risk officer, chief audit executives, board members, senior risk executives and senior risk officers. Even previous research in the organisation reviewed here focused on the board, the oversight committees such as the Risk Management Committee and Audit Committee, and those responsible for establishing risk management in the company. As stated earlier, the aim of the research reported here was to investigate and address the understanding of risk and risk

culture maturity at the more junior work levels in one organisation.

According to Banks (2012), there are factors that will contribute to the success of risk management in a business and a few that are relevant to this research project have been highlighted:

- an organisation must have a clearly defined business strategy that reflects all dimensions of risk;
- an organisation's management must have an understanding of risks;
- an organisation must have the ability to communicate clearly at all levels; and
- an organisation must have an internal culture that is attuned to risk.

Research design

The typical action-reflection cycle used by McNiff (2017) was chosen and implemented in the research reported here. The action-reflection cycle comprises phases of observation, reflection, action, evaluation and modification, after which movement into a new direction could be possible. The first step of observation and second step of reflection in the action-reflection research cycle were realised when the first three objectives of the research were set and executed. The *first research objective* was to analyse the prevailing risk culture of risk practitioners and business managers; the *second objective* was to compare the respective results of the two study groups surveyed. At the same time, the survey instrument, UARM RCS-2016, was used to analyse the understanding of risk management by these two groups (the *third objective*).

Research instrument

A survey was administered using the UARM RCS-2016 (Zaaiman et al., 2021) scale, which contained 34 items about risk management and risk culture. The five-point UARM RCS-2016 Likert scale items categorised risk culture maturity in risk management from, at one extreme, not viewed as an integrated enabler of achieving an organisation's objectives to being a low, medium, high or fully integrated enabler. Factor analysis showed that the UARM RCS-2016 scale measured the following risk culture-related aspects:

- (1) Perception of integrated risk management in organisational decision making (25 items).
- (2) Participant perception of own:
 - (2.1) risk understanding (7 items);
 - (2.2) risk responsibility and accountability (2 items).

The scale's reliability was calculated using the PROC CORR procedure of SAS[®]. The high Cronbach's alpha value of 0.96 for this sample indicated a high internal reliability of the scale for purposes of the study. The instrument contained specific questions about risk terminology, policies and procedures, to gauge whether the target groups addressed were aware of measures that were in place to address risk. The necessary risk management oversight structures, as well as the necessary policies and procedures prevailed in the company although it was possible that only senior managers were aware of these key risk components and that they were unknown to the lower employee levels in the organisation.

The main aims of the survey were to assess how respondents view the levels of: i) integration of risk management into the business management of the company; ii) the practice of risk management as an essential enabler for achieving the organisation's objectives. Respondents could rate the statements on a 5-point Likert scale (from *Never* to *Always*; as well as from *Perfectly* to *Not at all*). Two items were added to test the perception of risk ownership in the organisation (by *Risk managers, Strategic managers, Operational managers, Auditors, and I do not know*) and what could be done to improve risk management (by means of *Communication, Accountability and responsibility, Management processes, Management systems, Data, Training, and Other*). Maturity levels corresponding to the Likert scales were defined for each factor. For example, the range for the sub-factor score of individual risk understanding was:

- $1.0 \leq FS < 1.5$ Do not understand risk in the organisation
- $1.5 \leq FS < 2.5$ Low level of understanding of risk in the organisation
- $2.5 \leq FS < 3.5$ Medium level of understanding of risk in the organisation
- $3.5 \leq FS < 4.5$ High level of understanding of risk in the organisation
- $4.5 \leq FS < 5.0$ Completely understand risk in the organisation

The sample maturity levels were used as initial indicators of a participant's perception of the risk management culture in the group studied. The responses aimed to meet the *second objective*, to compare the results of the risk culture survey between risk practitioners and business managers.

Data collection

To gauge the prevailing risk culture, the questionnaire was sent via e-mail to junior personnel in the organisation. A convenience sampling method was used to target these employees. All permanent staff on junior management and non-managerial work levels based in South Africa, a total of 3 478, received the questionnaire. In the company the managers, senior and principal specialists operate at work level 4. Work level 5 includes specialists, supervisors and team leaders. Risk practitioners can operate at either level 4 or 5 and can also have any of these titles. Apart from the questions included in UARM RCS-2016, a further nine, company-specific and peer-reviewed items were added as listed in Table 1.

Table 1. Company-specific questions

| |
|---|
| The aim of the risk management process in my organisation is not to eliminate risk, but to manage risk as best as possible. |
| <i>Yes / No / I don't know</i> |
| I understand how to apply my organisation's approved risk impact and likelihood scales when I make decisions. |
| <i>Not applicable / Not at all / Not well / Moderately well / Well / Perfectly</i> |
| I understand that controls are put into place to mitigate the effects of a risk materialising. |
| <i>Not applicable / Not at all / Not well / Moderately well / Well / Perfectly</i> |
| I understand my organisation's risk terminology. |
| <i>Not applicable / Not at all / Not well / Moderately well / Well / Perfectly</i> |
| I understand how risk management principles can add value to my business operations. |
| <i>Not applicable / Not at all / Not well / Moderately well / Well / Perfectly</i> |
| I involve the risk management department when I perform a risk assessment. |
| <i>Not applicable / Never / Infrequently / Sometimes / Usually / Always</i> |
| I would prefer to receive training on risk management principles in the following manner: |
| <i>High level, general awareness training</i> |
| <i>Detailed, practical training</i> |
| I would like to receive standardised risk information about my division's risk profile. |
| <i>Yes / No / I don't know</i> |
| I would like to receive standardised risk information that could impact on my objectives. |
| <i>Yes / No / I don't know</i> |

The purpose of the additional items was to establish the risk knowledge, understanding (*research objective three*) and application, as well as the risk training and information needs of the respondents. The survey allowed the study population to add some comments of their own that were reviewed and converted to recommendations as set out in the *fourth research objective*. After an initial pilot of the questionnaire with eight employees, which proved to be satisfactory as a test of validity, it was sent to the target population. The respondents were divided into two groups – risk practitioners and business managers – by virtue of their response to a question about their involvement in risk management. Those who indicated their involvement as “directly” fell into the risk practitioners group, and those who indicated “indirectly” or “not at all” were grouped together as business managers. An online tool, Research.net, was used and the link to the questionnaire was distributed by e-mail. The survey was conducted anonymously and respondents provided consent to participate. A total of 739 complete responses were received, a response rate of 21.3%.

Data analysis

The data gathered were statistically analysed in order to check for completeness and statistical relevance. SAS[®] procedures were used to analyse the reliability of the data, whose normality was also tested. Demographic information was analysed in terms of such attributes as age, gender, position in the company, and length of service. The demographic information was analysed using the PROC FREQ procedure of SAS[®]. Among the 739 respondents, a total of 242 (32.8%) operate at level 4 and 497 (67.3%) work at level 5. Risk practitioners made up 68 (9.2%) and business

managers 671 (90.8%). This sample constitutes 289 (39.1%) from a commercial division, 250 (33.8%) from an operational division and the remaining 200 (27.1%) from a support division. The majority of respondents had been employed for more than five years (534 or 72.3%).

The UARM RCS-2016 was analysed in terms of descriptive and inferential statistics. The test used to compare the two independent groups was the Wilcoxon rank sums (Mann–Whitney U) test. The additional nine items were analysed by applying the Wilcoxon rank sums test, as well as the two-way table chi-squared test. The results from the UARM RCS-2016 survey described in this research were compared to ascertain the prevailing risk culture at the more junior work levels in the company as well as whether risk culture maturity was linked to how well risk management was understood.

5. RESULTS AND DISCUSSION

Phase 1

The overall responses to the questionnaire indicated a very similar risk culture. A result of 3.9 for factor 1 indicates that risk management is viewed as a high integrated enabler for achieving the organisational objectives. Sub-factor 2.1 reveals a high level of understanding of the risk in the organisation. For sub-factor 2.2 business managers fall within the range of 3.5–4.4, which means a high level of responsibility and accountability for risks connected to their role. Risk practitioners' average score of 4.6 (4.5–5.0) indicates that they completely understand risk in the organisation. The PROC UNIVARIATE procedure in SAS[®] was used to test for normality of data. The histograms for the factors were skewed to the right. Since the parametric assumption of normality did not hold, the non-parametric Wilcoxon rank sums (Mann–Whitney U) test needed to be applied to test for differences between the groups, therefore the PROC NPAR1WAY procedure in SAS[®] was applied.

The Wilcoxon test results per factor for business managers and risk practitioners are depicted in Table 2. Risk understanding was significantly different between the two groups. At an item level, three items from factor 1, five items from sub-factor 2.1 and one item from sub-factor 2.2 indicated significant differences.

Table 2. The Wilcoxon rank sums test results per factor

| Factor | Group | n | Wilcoxon mean score | Chi-squared test statistic | p value | Significant difference at $\alpha = 0.05$ |
|--|--------------------|-----|---------------------|----------------------------|---------|---|
| Factor 1: Risk culture: Risk integration | Business managers | 462 | 260.19 | 0.12 | 0.73 | No |
| | Risk practitioners | 59 | 267.31 | | | |
| Sub-factor 2.1: Risk understanding | Business managers | 626 | 336.00 | 18.16 | 0.00 | Yes |
| | Risk practitioners | 66 | 446.05 | | | |
| Sub-factor 2.2: Individual responsibility and accountability | Business managers | 636 | 347.88 | 3.22 | 0.07 | No |
| | Risk practitioners | 67 | 391.13 | | | |

Observation and reflection phases

Ownership of risk related to work level was important for the organisation to identify, manage and mitigate risks occurring at work-levels in good time and before damage was done to the business. The negative perception of risk ownership in the company was that the risk owner would be the stakeholder responsible for causing the risk to occur and therefore one item tested required respondents to choose whom they considered should own the risk in the organisation; 10% of respondents indicated that they did not know. This item allowed respondents to choose any combination of risk owners, including the option of “I don’t know”, which proved problematic to analyse, because some respondents chose the “I don’t know” option as well as some of the company roles listed. The process did not allow the researcher to clarify these instances and all responses that also included the “I don’t know” option were added to the “I don’t know” total. The top options mostly chosen as risk owners were risk, strategic and operational managers, as well as auditors.

Considering that management (strategic and operational) owns the risk in an organisation and assistance is provided by risk managers and stakeholders (Cohen et al., 2017), it was surprising to see that risk ownership was allotted to others (Fig 1).



Figure 1. Risk ownership as perceived by respondents

Respondents could also indicate what might be done to improve risk management in the company. Accountability and responsibility, communication as well as training were highlighted as the top three areas that would assist in this regard.

As already mentioned, items were added to the UARM RCS-2016 to test understanding of risk with reference specifically to the company under review. Significant differences between the two groups were observed for the four items measuring the understanding of risk management (Table 3).

Table 3. The Wilcoxon rank sums test results per item

| Item detail | Group | n | Wilcoxon mean score | Chi-squared test statistic | p value | Significant difference at $\alpha = 0.05$ |
|---|--------------------|-----|---------------------|----------------------------|---------|---|
| The aim of the risk management process in my organisation is not to eliminate risk, but to manage risk as best possible | Business managers | 671 | 371 | 0.43 | 0.51 | No |
| | Risk practitioners | 68 | 360 | | | |
| I understand how to apply my organisation's approved risk impact and likelihood scales when I make decisions | Business managers | 653 | 349 | 25.14 | 0.00 | Yes |
| | Risk practitioners | 67 | 477 | | | |
| I understand that controls are put into place to | Business managers | 666 | 357 | 17.68 | 0.00 | Yes |

| Item detail | Group | n | Wilcoxon mean score | Chi-squared test statistic | p value | Significant difference at $\alpha = 0.05$ |
|---|--------------------|-----|---------------------|----------------------------|---------|---|
| mitigate the effects of a risk materialising | Risk practitioners | 68 | 466 | | | |
| I understand my organisation's risk terminology | Business managers | 666 | 358 | 15.98 | 0.00 | Yes |
| | Risk practitioners | 68 | 461 | | | |
| I understand how risk management principles can add value to my business operations | Business managers | 666 | 356 | 22.86 | 0.00 | Yes |
| | Risk practitioners | 68 | 479 | | | |
| I involve the risk management department when I perform a risk assessment | Business managers | 529 | 293 | 1.47 | 0.22 | No |
| | Risk practitioners | 62 | 320 | | | |

This result is similar to those obtained from the UARM RCS-2016 analysis. The results indicated that risk practitioners have a better understanding of risk management principles than business managers. Risk practitioners consistently answered “Well” and “Perfectly” more times than business managers for the items where a significant difference was observed. Only 45.6% of business managers answered “Well” and “Perfectly”, whereas 73.5% of risk practitioners did so. The sample group had another opportunity with the additional, company-specific items, to indicate what training they would like to receive with regard to risk management principles and whether it should be high-level, general awareness training or detailed, practical training. Calculated as a percentage per study group, 48.1% and 51.9% of business managers requested high-level and detailed training, respectively. The percentages for risk practitioners were 35.3% and 64.7%. Therefore, the risk practitioners mostly requested detailed training whereas business managers were 50/50 for detailed and high-level training.

A significant difference was observed between risk practitioners and business managers when the chi-squared test by means of a two-way table was applied on the item testing training preferences. The groups, however, displayed a similar need for relevant risk management information to be shared. For risk information relating to the division’s risk profile, 95.8% of business managers responded yes and 97.1% of risk practitioners. A total of 96.7% of business managers responded yes to standardised risk information that could assist in realising their objectives versus 99% of risk practitioners.

The results obtained from the UARM RCS-2016 as well as the additional company-specific items indicated that there was a similar and high perceived risk culture for both business managers and risk practitioners. However, the responsibilities and accountabilities were better understood by risk practitioners. Differences were also observed for risk understanding. It should be a concern that

10% of the respondents indicated that they did not know who owned the risk in the company. Even though ownership of risk lies with top management, risk accountability should form part of everyone's role and responsibility.

Common themes across the responses were clearly divided into issues that could either be improved or indicated a gap such as responsibility and accountability, communication as well as training. Among the recommendations highlighted in the free-format comments from respondents were improvements in the way risk information was shared and the desire for better channels of communication.

Phase 2

Action phase

The second phase of the action–reflection model was implemented when actions were planned to address and improve the risk culture factors affecting risk management in the company. Since the survey was conducted at the lower work levels in the business, the results provided insights into the challenges experienced by the staff. Although risk culture maturity was not as poor as was expected, the lack of understanding and knowledge of risk management so revealed, impacted the risk culture adversely. This is supported by the literature consulted, which provides guidelines about the various success factors for a mature risk culture. Fraser and Simkins (2010) mention risk awareness across the organisation, including full and transparent communication and accountability as some of the elements of a risk-aware culture. Blunden and Thirlwell (2012) state: “Clarity about roles and responsibilities is a key part of risk governance and of a good risk culture.” To establish a strong risk culture, Banks (2012) lists, amongst other items: tone at the top, making risk awareness actionable by using and applying your knowledge, promoting the free flow of communication, displaying strong expertise, and accepting accountability and responsibility. He also includes accountability, communication and expertise in his “simple rules of risk”.

The *fourth research objective* was to recommend approaches or actions to be taken to address the differences in understanding of risk and risk-related needs communicated by the respondents. Accountability and responsibility, communication as well as training were highlighted by the respondents as the top three areas that would assist in improving risk management in the organisation.

Participatory involvement of management stakeholders was necessary to improve current practices (López et al., 2019). The management of the organisation responded in a positive way and was eager to take action and improve the risk culture. The comments made by the study population were translated into practical actions that were subsequently adopted to address the shortcomings identified. The needs of the junior personnel had to be considered when measures were recommended to address risk management awareness and training limitations. Our subsequent objective was to implement the recommended risk culture improvement actions and then evaluate the outcome later in a second survey.

Based on the initial survey, the following measures were adopted:

- Risk management processes and procedures were changed to be more understandable and practical;
- The risk management department started to cooperate better with other departments where risk management was performed on a smaller scale, to align better the organisational risk management approach;
- Changes were made in the way of reporting on risk;
- Risk management policies were updated. The objective was not to contradict other policies, something that happened unknowingly in the past;
- Role definitions were revised;
- More risk champions were trained to become, directly or indirectly, involved in risk management and the focus was on
 - creating more awareness of risk and risk reporting;
 - definition of terms used;
 - understanding of risk roles and responsibilities; and
 - the importance of risk reporting for the organisation.

More risk champions were trained from more departments in the business and these stakeholders also received training in the use of an updated risk management system. The risk management protocol was changed to a Web-based system, designed and upgraded to a custom-fit for the organisation. Risk terminology was reviewed and revised to provide better definitions of terms used.

Evaluation phase

A year later, a follow-up study was performed in the organisation to evaluate the impact of the risk culture improvement measures. The follow-up survey, which was sent out to personnel at the same work levels to evaluate the impact of the implemented measures, was completed by 488 respondents. A comparison was now drawn between staff directly involved in risk management (by performing risk assessments and maintaining risk registers), staff indirectly involved (by providing input into risk assessments or risk action plans) and employees not involved with any risk management activities at all. Staff directly involved in risk management made up 59 (12%), people indirectly involved 217 (45%) and those not involved in risk management activities at all numbered 212 (43%). In the comparison survey of risk practitioners and business managers, the respondents included 68 risk practitioners (directly involved) and 671 business managers (indirectly and not involved in risk management). In the follow-up study, this ratio of respondents was 59:429.

The same six questions addressed in the original survey were posed to the second study population. Two additional questions were added to evaluate the perceptions on implemented change in the risk management of the company and organisational risk management performance. The areas of concern addressed by risk management measures implemented in the organisation, namely responsibility and accountability, communication and training, were once again evaluated. Significant differences between the two groups were found for the items measuring the

understanding of risk management (Table 4). There was also a significant difference observed for the item that measured the risk management department's involvement when risk is assessed.

Table 4. The Wilcoxon rank sums test results per item in the follow-up survey

| Item detail | Group | n | Wilcoxon mean score | Chi-squared test statistic | p value | Significant difference at $\alpha = 0.05$ |
|---|-------------------|-----|---------------------|----------------------------|---------|---|
| The aim of the risk management process in my organisation is not to eliminate risk, but to manage risk as best as possible. | Business manager | 404 | 232 | 0.32 | 0.57 | No |
| | Risk practitioner | 57 | 227 | | | |
| I understand how to apply my organisation's approved risk impact and likelihood scales when I make decisions. | Business manager | 411 | 225 | 19.82 | <0.01 | Yes |
| | Risk practitioner | 58 | 305 | | | |
| I understand that controls are put into place to mitigate the effects of a risk materialising. | Business manager | 423 | 235 | 8.35 | 0.00 | Yes |
| | Risk practitioner | 59 | 288 | | | |
| I understand my organisation's risk terminology. | Business manager | 428 | 233 | 24.72 | 0.02 | Yes |
| | Risk practitioner | 59 | 326 | | | |
| I understand how risk management principles can add value to my business operations. | Business manager | 424 | 237 | 5.41 | 0.02 | Yes |
| | Risk practitioner | 59 | 279 | | | |
| I involve the risk management department when I perform a risk assessment. | Business manager | 315 | 181 | 3.91 | 0.048 | Yes |
| | Risk Practitioner | 56 | 212 | | | |
| Have you noticed a change in risk awareness over the past 15 months in the organisation? | Business manager | 429 | 244 | 0.19 | 0.66 | No |
| | Risk practitioner | 59 | 251 | | | |
| Are we doing a good job at managing risk in the organisation? | Business manager | 323 | 189 | 0.78 | 0.38 | No |
| | Risk practitioner | 51 | 177 | | | |

There was a good understanding of the aim of risk management in the organisation (claimed by 89.8% of staff directly involved, 93.1% of personnel not directly involved and 85.4% of employees not at all involved in risk management). There were only 16.9% of stakeholders directly involved in risk management, and 7.8% not directly involved, who understood the organisational risk impact and likelihood scales perfectly well. Although the percentages are low for staff directly and indirectly involved in risk management and not understanding the organisational controls for mitigation of risk (3.4% and 4.1%, respectively), it is also important to note that 16.9% of those not involved in risk management did not understand that risk mitigation controls are needed in organisations. Understanding risk terminology is a problem for 17.5% of those staff members not directly involved with risk management and 34.9% for those not involved in risk management. The value added by risk management principles was understood by the majority of respondents; for those directly involved, indirectly and not involved in risk management, the percentages of not understanding well or not at all were 8.5%, 7% and 17.4%, respectively.

The results also indicated that it was not an established practice to involve the risk management department when performing risk assessments. Almost 56% of those directly involved in risk management and 60% of respondents considered that risk awareness had improved after measures for improvement had been implemented after the initial survey, but 54.7% of those not involved in risk management reported differently. It is noteworthy that there is still room for improvement of risk management in the company if 35.6% and 27.6% of the study population, directly and indirectly involved in risk management, have the same perception.

Modification phase

Even more interventions are necessary and need to be implemented to improve the risk culture of the organisation. Different departments have different risks and individual departments need to understand the impact of their risks on the business as a whole.

Training and awareness-raising. The focus here is mainly on the training of more risk champions, but in many instances, the risk department has been requested also to conduct risk management training for a whole department. Representatives from the risk department now explain the importance of their risk function at the monthly induction training sessions for new staff members on joining the organisation. A booklet on risk was designed in which key risk management principles, the oversight structures and rating scales are explained in word and graphically in a user-friendly way. Given the increased requirement for training and awareness, the focus in future will be to move to eBooks and other digital channels to conduct training. This will extend the training reach and reduce the time spent on organised, face-to-face training. As a consequence of the survey interventions, various personnel and associates are trained in their specific fields of risk management.

A comprehensive schedule is kept that *tracks the appointments of risk champions* and what training they have attended. This risk champion training project has been expanded to other countries with great success. The goal is to introduce training that tests ultimate understanding as well as keeps track of the outcome. The risk management team will be working more closely with different departments where some processes overlap, to incorporate their requirements or

guidelines and operational criteria into risk management policies. When there is cross-reference information, *alignment of policies* will aim to reduce confusion.

Another key future focus area is to start working on also *embedding a combined assurance model* and revising the responsibility of each assurance provider. The focus will be on the co-ordination of activities. This will be a huge step forward since most of the people engaged fall within the work levels of the organisation targeted in this research.

6. CONCLUSION

The main objective of the research reported here was to analyse and compare the risk culture maturity of risk practitioners and business managers in one South African telecommunications organisation. In an initial survey, implicating more-junior work levels, the focus was on investigating the level of understanding of risk and risk management in the organisation. Results showed that both groups scored the same for risk integration, with risk management viewed as a highly integrated enabler of achieving the company's objectives. Understanding of risk management by both business managers and risk practitioners was analysed. Statistical analysis of the items in the survey that aimed to test risk understanding indicated significant differences between these two groups. As expected, risk practitioners' levels of responsibility and accountability for risks connected to their roles scored somewhat higher than for business managers. The free-format comments and responses to questions about what information and training would be desirable, provided valuable input for recommending risk culture improvements. Measures of risk culture improvement were implemented and one year later, another survey was completed.

In the follow-up study, the majority of respondents understood the aim of risk management in the organisation. It was evident that not all the study population understood that risk mitigation controls are a necessity in organisations, as indicated by 16.9% of those not involved in risk management. Risk terminology is still not understood well by those managers who are indirectly or not involved in risk management. There is also still a significant difference in understanding between risk practitioners and business managers on how risk management principles can add value to their business operations. The lack of early involvement of the risk management department in risk assessment performances of other departments also seemed to continue to be problematic in the organisation; for example, in many instances big projects are embarked on, new processes are designed and new systems acquired without a proper risk assessment performed by the risk management department. Risk management still seemed to be perceived as something separate from day-to-day business management. Business managers also tended to spend all their time on immediate crises and not enough time on proactive preparation for any risks that might materialise. Due to the lack of understanding of how risk management can add value in the daily operations of the company, it is still perceived negatively and not everybody is willing to share the risks that they experience through their everyday work.

The value of this study was: first, it provided a baseline perceived risk culture index for the company and highlighted real concerns and needs from the business managers and risk practitioners. The findings also confirmed the expectation that risk practitioners would have a

better understanding of risk management than business managers. Second, the study provided an opportunity within the organisation to investigate the impact of factors such as roles and responsibilities; understanding of risk terminology, principles and controls; utilisation of risk practitioner knowledge and skills; and overall risk awareness of the risk culture of the business. The description and outcomes of the study might prove valuable to other researchers in the field of risk culture as well as to other organisations. Third, the measures that were implemented moved the organisation impressively into new, improved risk awareness and risk management directions, one of which was the training of more risk champions to assist in embedding a better risk culture and another where cooperation between the risk management department and other departments (risk practitioners and business managers) improved. The fourth and probably the most important value added was that the study promoted actions that increased the awareness and probability of more risk management initiatives to ensure that the risk culture of the organisation will continue to improve over time. Measures that were implemented to improve risk culture were: updating the risk management system to a Web-based custom-fit system; training more risk champions from more sections in the organisation; training in the use of the updated risk management system; updating risk policies and risk roles; improving awareness of the importance of risk reporting; revising risk terminology and creating better definitions; using risk champions consciously to improve the understanding of risk roles and responsibilities.

This study had the limitation that it focused on only two work levels in a large organisation. However, these levels also embrace most of the company employees and could be instrumental in driving a risk culture in the business. More often than not, training efforts and research are focused on the more senior levels in the organisation, rarely to consider what the perceptions are at lower work levels. People at lower levels who have to implement new policies and procedures, as well as apply risk management principles on a daily basis, are seldom fully trained or included in risk- and business-related communication. This is evident from the responses indicating a need for detailed, practical training. It will be possible to conduct future research in another action research cycle or a longitudinal study to investigate further the risk culture of this organisation and behavioural changes after sufficient time has elapsed and the proposed measures have all been implemented and taken effect.

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EXPLORING RISK CHALLENGE PRACTICE IN A SOUTH AFRICAN LIFE INSURANCE ORGANISATION

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ABSTRACT

Regulated financial services organisations are required to have in place risk functions that are not just gatekeepers but that also provide risk challenge when business decisions are made (BCBS, 2021). Although risk challenge is perceived to add to the successful practice of risk management in organisations, no study could be found in the literature on risk challenge practice in the financial sector of life insurance. A qualitative study was performed in a South African life insurance organisation where the purpose of the study was to explore the experiences of operational risk managers when risk challenge is practised. The study found that risk challenge practice should not be seen as an unnecessary, bureaucratic process when business decisions are made; its purpose is rather to strengthen the relationship between business and risk management. Risk challenge practice benefits the organisational decision-making process when buy-in comes from both sides and assists in timeously identifying risks that can be harmful to the organisation; it offers direction for action. The results of this study concur with elements found in the literature to show that the risk function, leadership and accountability, tone from the top, and information and communication in the organisation are necessary for successful risk challenge practice. The study, however, highlights, in addition, group dynamics and the credibility of risk practitioners involved with risk challenge to be contributing factors, and found that, at the time of business decision-making, operational risk managers are required to have the courage to speak without fear of being perceived as bringing too much challenge or being out of line with business objectives. Risk practitioners ought also to have the ability to deal with strong-minded leaders. Although strong regulatory guidance and ongoing review of practices of risk challenge may assist practitioners, lack of product knowledge in a complex environment may limit the application and practice of risk challenge. The outcomes of this study could be useful not only in the life insurance sector but also in other business environments where application of risk challenge appears to require review and improvement.

Keywords: risk challenge practice; operational risk management; life insurance organisation; risk culture indicators

1. INTRODUCTION

The life insurance industry is currently dealing with challenges such as having to offer premium relief options to its customers, dealing with loss of value of customer investments, modelling mortality rates, and a higher claims ratio from deaths. Even in stable conditions, risk challenge has an important part to play in the life insurance industry, but even more so in the volatile context precipitated by the COVID-19 pandemic (Goodell, 2020). Decisions taken by organisations need more than ever to include risk challenge.

There are three lines of defence in risk management (IIA, 2013). Distinct from management, which is the first line of defence where business decisions are taken, is operational risk management, which forms part of the second line of defence in risk management, the third line being internal and external audit (IIA, 2013). One of the roles of operational risk management is to challenge business decisions by revealing potential risks, thereby playing an important part in ensuring that the organisation is not exposed to undue risks, and assisting management in making proactive and informed business decisions after due consideration of potential risks. Another key function of operational risk management is to ensure that adequate business continuity plans are in place and tested in preparation for a disaster or crisis event such as the COVID-19 pandemic. In addition, operational risk management plays a key role in steering activities that take place in the crisis management committees set up to manage issues related to such events. Inadequate risk challenge is often cited as a contributing factor for risk management failures in insurance organisations, according to Roeschmann (2014) whose study shows that insurers, compared to the banking sector, have neither sufficient understanding of the role played by operational risk in terms of risk challenge, nor of how this feature contributes to a sound risk culture.

In the US, the insurance industry is governed by the National Association Insurance Commissions (NAIC, 2006), and conduct and culture are cited as issues for this industry. The study by the Financial Markets Supervisory Board in the UK (FMSB (2018) of 390 misconduct cases over a period of 100 years contributed to the current NAIC legislation in the US that governs insurance organisations. As in Europe and America, it became necessary in South Africa for banks and insurance regulatory bodies to cooperate with each other. This resulted in the formation of Twin Peaks legislation, regulated by the National Treasury of South Africa (National Treasury, 2018). Under this regulation, the soundness and conduct of the financial services industry are governed by a single regulatory framework, without separate regulations for insurance and banks. The whole world is currently dealing with the impact of the COVID-19 pandemic and especially the life insurance industry (Goodell, 2020). The practice of risk challenge in this difficult operating environment becomes more than normally relevant for the industry, and particularly for risk managers, when financial business decisions are made related to the impact of the pandemic. The present study contributes to research on the topic of risk challenge in the life insurance industry, of special use given the limited amount of literature available in this field.

The study was undertaken in a South African life insurance organisation after it had gone through a restructuring process. The objective of the research was to explore how risk challenge is applied

and practised in the organisation when business decisions are made, and its role in assisting an organisation to avoid or minimise failures. The study provided feedback from stakeholders involved with risk management in the organisation, which could be related to indicators of risk culture found in the literature. Participants also offered comments about ways in which risk challenge practice could be improved to assist in enhancing the prevailing risk culture of the organisation.

2. LITERATURE REVIEW

To contextualise the study, three key concepts are defined: risk, operational risk and risk challenge. Operational risk in the financial sector, which features strongly for regulators, is also discussed. However, the study focus was mainly on exploring perceptions of operational risk managers on risk challenge, which is most important when business decisions are taken in the financial sector, and particularly in insurance organisations. The literature relating to risk challenge in the financial sector and its impact on business management are therefore discussed. The literature review concludes with the relationship between operational risk, risk challenge and the risk culture of an organisation.

Key concepts

The International Standardisation Organisation ISO (2009) framework for risk management defines risk as an uncertain future event that may materialise. Operational risk refers to failures of people, processes, and systems or loss due to external events (BCBS, 2015, 2021; NAIC, 2006). Risk challenge refers to critical discussions of risk and debates on risk-related decisions; it includes actions such as testing current risk-related practices as well as creating an environment that is open to constructive discussion about business decisions that may otherwise increase the possibility of the organisation being exposed to unforeseen risks (FSB, 2014; Zaaiman et al., 2021).

Operational risk management

According to IIA (2013), operational risk management as a second line of defence plays a key role in providing oversight on key risk discussion and risk related decisions in order to minimise the impact of uncertain future events in the financial sector, should they materialise. As defined, the scope of operational risk management usually comprises four elements – namely, people, processes, systems and external events – often referred to as root causes of risk. Operational risk management's oversight role includes challenging business management to address potential failure in any of the four elements (BCBS, 2015).

Examples of the first element, operational risks related to the behaviour and actions of people, include unauthorised employee activity; weak adoption of the corporate code of business ethics; ineffective or non-existent fraud detection and prevention measures; illegal or unethical selling tactics; falsification of client records; and enabling money laundering or rogue trading. To address the second element, processes, operational risks in organisations need to be managed where processes are not clearly documented, where there is a lack of accountability for certain processes, where processes do not take cognisance of environmental and regulatory requirements, or where

there are inadequate mechanisms to identify, escalate and rectify deficient or obsolete policies and processes. Failures related to the third element, systems, occur mostly as a result of deficiencies in information technology (IT) strategic planning processes: IT plans not aligned to organisational strategy; deficiencies in IT systems' architectural designs; inadequate consideration of IT systems' impact on business units and customers; ongoing system changes, system enhancements or upgrades; continuous hardware and software failures; and inadequate system security. Finally, in relation to the fourth element, external events, operational risk management needs to challenge business management with its preparedness for uncertainties brought by external events such as criminal activities of non-employees; outsourced services to third parties or suppliers; threats from regulatory breaches; litigation, fines and penalties; fire, floods, load-shedding, civil disobedience, riots, and protests (Girling, 2013).

Guidelines are provided by the Basel Committee on Banking Supervision BCBS (2015) on the classification of operational risk event categories, and Pakhchanyan (2016) shows that it is possible to quantitatively measure losses suffered due to an operational risk incident classified into one of seven event categories: internal or external fraud, damage to physical assets, employment practices, workplace safety, client products, business practices, and execution and delivery process management. These categories are also used to measure total operational risk exposure from failed management action/inaction, which may include poor execution of external regulation and excessive risk taking; employee misconduct; lack of control such as failure to disclose risks, insufficient compliance to risk regulations and poor documentation; and general omission such as failure to test new products before launch, failure to comply with policies and procedures and lack of employee supervision (Chernobai et al., 2011). Operational risk management's role includes setting a proper governance structure, frameworks and policies to guide the ways in which risks in an organisation should be identified, managed or mitigated (Van Asselt & Renn, 2011).

Risk challenge practice in the financial sector

Identification and management of risks in financial organisations are usually needed when new initiatives are undertaken, such as the introduction of a new product, when an organisation enters into new markets different to its current jurisdiction, or when other changes are pursued which could introduce new risks. During any of these activities, the role played by operational risk managers is vital in ensuring that the process of risk challenge expedites the required risk governance processes; it is therefore deemed acceptable that they, as a second line function, challenge first line management by asking critical, risk-related questions and by fostering discussions and debates on risk-related decisions (Chernobai et al., 2011). The risk culture model of Ashby et al. (2012) (Centre for Analysis of Risk and Regulation at the London School of Economics and Political Science) includes the competency of risk practitioners, amongst other things, as one of the necessary features that will enable risk challenge. The present study focused on the role of operational risk managers as real-world practitioners, with an emphasis on their perceived ability to challenge how risks were considered and managed when business decisions were made in the organisation.

Stulz (2008) highlights inadequate risk identification, lack of communication of risks and inadequate governance structures as among the reasons for the financial crisis at the time. The study by Lang and Jagtiani (2010) adds the view that failure to understand risk management practices contributed to the financial crisis. Risk challenge, as defined earlier, relates specifically to the space allowed for critical consideration of identified risks before business decisions are made. The study by Du Plessis and Blom (2020) on organisations in South Africa, which reported that middle managers decided to keep quiet for fear of victimisation, presents an example of the difficulty of successfully performing risk challenge. Unless risk managers, including operational risk managers, perform their primary duties of raising risks without fear when business decisions are made, risk challenge cannot be effectively practised. Failure by operational risk managers to challenge the plans and decisions of first line management could result in higher exposure to risk (Lang & Jagtiani, 2010).

Risk challenge in the financial sector, according to the UK's Financial Stability Board (FSB), is noted as one of four indicators of risk culture: tone at the top, accountability, incentives, and communication and effective challenge (FSB, 2014). These indicators all play their part and have been acknowledged in previous studies (Van Greuning & Bratanovic, 2020; Walker et al., 2015; Zaaïman et al., 2021), but the aspect of risk challenge practice has been notably underexplored in the literature.

Operational risk and risk challenge in the context of risk culture

Lack of sufficient risk challenge is often partly responsible for risk management failures in financial organisations (Roeschmann, 2014). Many financial organisations have governance structures to support the work of operational risk managers, following the requirements of regulators such as the Basel Committee on Banking Supervision (BCBS, 2015) and codes of governance such as King IV (IoDSA, 2016). Andersen et al. (2012) single out the failure to manage operational risk as the particular reason for the financial crisis of 2008. Since then, many studies have reported that risk regulation in organisations leads to an improved risk culture in which risk management governance structures support business decisions when risk events are envisaged or happen (Gandz & Seijts, 2013; Porretta & Fabrizio, 2021).

In 2015, the Basel Committee on Banking Supervision issued more stringent capital adequacy requirements under Basel 3 with equivalent regulation for insurance under ORSA BCBS (2015). The UK's FSB issued a framework for assessing risk culture (FSB, 2014). Its common implementation not only in different regions but in different countries may prove to be difficult, as highlighted by Carretta et al. (2017), who claim that poor integration of risk culture by the European Union banking regulators highlights the challenges and complexities of implementing a common risk culture framework. In essence, these regulations and guidelines affect not only the banking environment but also the related, massive insurance industry. South Africa, as a global player in the financial services industry, is not immune to issues related to risk culture and conduct. As Porretta and Fabrizio (2021) point out, governance structures and risk management practices are reviewed as part of mandatory, periodic, supervisory reviews by regulators, who also consider

the risk culture of organisations and how it extends to the organisational culture.

Minimising the uncertainty of a future event has been associated with the maturity of an organisation's risk culture (Barton & MacArthur, 2015; Walker et al., 2015). Roeschmann (2014) refers to the way in which organisations' risk culture determines the way risks are identified, understood, discussed and acted upon. These concepts need to be viewed in a group context, as they would be applied and practised regularly by operational risk managers of an organisation playing their vital role in the application of risk challenge. The definition of risk culture offered by Ring et al. (2016) adds a dimension related to norms and values influencing behaviour, citing the example of how a strong-minded director can impede both the culture of risk challenge and risk challenge practice as an indicator of risk culture. Risk culture more broadly has been identified as a key contributor to the overall effectiveness of risk management, including operational risk management, a view supported by Barton and MacArthur (2015), who justify the need for a "challenge" culture in enterprise risk management. The risk culture of an organisational group should be outlined in its strategy, with clear risk-related programmes owned by most senior executives (Pirson & Turnbull, 2011). Risk challenge, however, relates specifically to the space allowed for critical consideration of identified risks before business decisions are made, and to the active inclusion and encouragement of alternative 'devil's advocate' views.

The UK's FSB highlights effective challenge as one of its four key indicators of risk culture (FSB, 2014). A European study by Gorzen-Mitka (2018) uses the concept of risk markers to determine how these can be considered by small and medium enterprises to improve risk culture. With action plans in place to address risks related to these markers, organisations are better able proactively to make decisions in which risks are taken into consideration. Eight different risk markers have been identified, namely, risk leadership, responding to bad news, risk governance, risk transparency, risk resources, risk competence, risk decisions and rewarding appropriate risk taking. Ten risk culture indicators are included in the RiDC model of Zaaiman et al. (2021): group dynamics, risk accountability, risk-based incentives, risk communication, risk information, risk leadership: tone, risk management framework, risk role, risk understanding and risk challenge. Evidence of a culture open to risk challenge is reflected in decision-making processes as well as in broader interactions and processes (Zaaiman et al., 2021). Whereas the level of explicit inclusion of risk in decision-making represents the implicit, subjective value afforded to risk by the group (Pirson & Turnbull, 2011; Zaaiman et al., 2021), such inclusion of risk in decision-making processes may not necessarily mean that risk managers are or feel free to raise concerns without fear of being viewed as 'negative' to organisational progress. To understand what occurs in practice, the present study, therefore, undertook to explore in detail the actual experiences of risk practitioners as they attempted to pose challenges in their organisation.

3. METHODOLOGY

A qualitative research method was chosen for this study. Qualitative research provides a way for exploring and understanding the meaning that individuals or groups ascribe to a social or human problem (Creswell & Guetterman, 2019; Golafshani, 2003; Remler & Van Ryzin, 2015). As

described by Robert (2004), “qualitative research is highly descriptive and often recounts who said what to whom as well as how and why”. Qualitative research is often challenged for reliability and credibility of outcome, and is at times regarded as a collection of personal opinions as pointed out by Noble (2008) so trustworthiness and rigour are required. Bailey (2017) also confirms that the researcher must ensure that the results of a study have rigour as far as possible and can be trusted by other researchers. To ensure rigour and trustworthiness in the present study, a research assistant attended one of the interviews and checked all the transcriptions of the interviews as well as the codes.

Data collection

The study conducted interviews with individual risk managers, who were asked how risk challenge was practised by operational risk managers when decisions were taken in the South African life insurance organisation under study. Thirty-five risk managers involved with risk challenge were employed by the organisation, of whom 18 were operational risk managers, the balance comprising compliance managers and four enterprise-wide risk managers. The purposive sample, described by Palinkas et al. (2015) as individuals who are knowledgeable about the organisation, consisted of 13 participants. Initially, one divisional executive in operational risk and eight operational risk managers were interviewed. To obtain more input from other risk managers, two additional enterprise-wide risk managers and two compliance managers were included in the sample. Of the purposive sample, 90% comprised participants who had been working for the company for longer than 12 months, and they provided more meaningful input than those who had been in the organisation for less time.

The interview questions included general as well as specific ones. All were linked to the research objectives of the study, which were to explore the extent to which risk challenge was practised by operational risk managers in a South African life insurance organisation, and to assess the situation and find ways to improve the practice of risk challenge (Appendix A).

Interviews were conducted with the aim of achieving thematic data saturation, described by Ando et al. (2014) as a process that involves analysing data from interview transcripts in a step-by-step manner. Learnings from the research by Dai et al. (2019) and Bailey (2017) were also considered regarding the number of interviews to conduct if data saturation was not reached. Interviews continued until no new codes emerged from the transcripts; data saturation was reached after 12 interviews had been concluded. One further interview was conducted to ensure that data saturation had indeed been reached. Owing to the COVID-19 pandemic and the impact of government lockdown and social distancing rules at the time, all interviews were conducted virtually, using the Microsoft Office Teams application, which enabled remote meetings and allowed them to be recorded.

Data analysis

To transcribe the interview data, a speech-to-text application, Otter.ai, was used. Transcripts were coded according to the participant classification system, P1 to P13 (Appendix A). The responses were analysed thematically. A summary of answers to every interview question was extracted and

coded from each participant's transcript using an existing codebook as a guide, based on the RiDC model of Zaaiman et al. (2021). A customised codebook for the study was then compiled and themes were extracted (Table 1).

4. RESULTS AND DISCUSSION

Overall analysis of the transcripts revealed that current risk challenge practices do not happen in isolation but, as some participants pointed out, they happen when related enablers of risk challenge are in place. Five themes were constructed for the study: current risk culture practices, the role of risk function, leadership and risk accountability, the consultation process, and information and communication.

Table 1. Summary codebook

| Theme constructed | Codes |
|------------------------------------|--|
| Current risk challenge practices | <ul style="list-style-type: none"> • Deemed equivalent experience levels of those posing challenge and those initiating decisions (P1, P2) • Courage to speak (P11) • Unquestionable credibility of those posing challenge (P1) • Depth of knowledge (P2) • Triggered by a recent actual experience (P9) • Nature of individual professional training (P3) |
| Role of risk function | <ul style="list-style-type: none"> • Everyone understands their role (strong governance structure) (P2, P3) • Partnership between business and risk (P10) • Role of risk is clear and practised (P12) • Appropriate invitation to a seat at the table (P5) • Professional judgement (sceptical optimist) (P1) • Diplomacy and tone of judgement (P11) • Not being bold (P7) |
| Leadership and risk accountability | <ul style="list-style-type: none"> • Leadership style (P1) • Role of CEO (P7) • Executive buy-in (P3, P6) • Tone is set at the top (P8, P9, P11) |
| Consultation process | <ul style="list-style-type: none"> • Reason for seat at the table (P3, P4) • Substance over form (P1) • Scope of assessment (P2) • Approach and consultative process (P8, P13) • Timing allowed for risk challenge (P2) • Embedded practices (P6) |
| Information and communication | <ul style="list-style-type: none"> • Timing of information and agile practices (P1, P2, P11, P10) • Language used in the debates and discussions (P11) • Simplified communication (P11) • Transparency of information (P11) |

THEME 1: CURRENT RISK CHALLENGE PRACTICES

When asked about whether they believed that risk challenge, as defined, was commonly practised, more than half of the participants answered “no”, and additional comments indicated factors that they saw as contributing to different levels of ‘risk challenge’ practice across the group. Effective

risk challenge was assisted, according to operational risk practitioners in the sample, when those of them posing the challenge were viewed as being as experienced as those initiating a decision or a point of view, and when their deemed credibility or level of seniority was high enough. Further enablers suggested by participants included their having both the courage to speak and in-depth knowledge of the issues of concern. Experience of past events, too, they suggested, could assist the practice of risk challenge, as well as the nature of an individual's professional training.

Critical discussion and debate about risks related to decisions are enabled by risk practitioners who have credibility in terms of seniority as well as experience in the industry in which they operate, according to an operational risk executive:

Experience levels of those posing challenge and consistency when those levels of decisions are challenged by a deemed equivalent in the organisation are seen as a credible challenge. I think sometimes when the challenge comes from a more junior person to a senior person, there isn't necessarily that deemed credibility. (P1)

An executive ERM participant also cited fear as a feature that hinders risk challenge especially in someone who may be less senior:

People are scared for their jobs. They are scared, they don't feel safe to speak up, especially when a decision is made by a person with a lot of power, like the CEO. (P11)

The courage to speak was an attribute previously associated by Ring et al. (2016) with the ability to deal successfully with strong-minded business directors who could impede the culture of risk challenge.

By way of illustration, after the Volkswagen emissions scandal in 2015 in Germany was exposed by the Environmental Protection Agency, a senior manager of operational risk described, from experience in previous employment in a bank, the danger of clashing values when profit and risk are in opposition (P9). Apart from a focus on profit, a head of operational risk saw training and development in the professions (that is, the types of qualification and levels of understanding achieved) as a further factor shaping individuals' views of risk challenge (P3).

Overall, there was consensus among participants that risk challenge currently took place at board and committee levels, and that more needed to be done to promote risk challenge at lower levels in the organisation.

THEME 2: ROLE OF RISK PRACTITIONERS

The role of risk practitioners as a theme received the second highest number of responses from participants. Risk role was documented in the risk management structure and framework of the organisation. Although the 'role of a risk practitioner' was described there, it did not necessarily mean that risk challenge was practised. Participants commented on the importance of understanding the roles of the different people involved in risk challenge with specific reference to the roles of business management, referred to as having a first line role, and risk practitioners who played a second line role. The importance of the role of risk function in the organisation was emphasised by Roeschmann (2014) as playing a large part in how risks are identified, understood, discussed and acted upon, all of which contribute to risk challenge.

The present organisational structure and risk management structure of the company seemed to contribute to the lack of effectiveness of risk challenge by risk practitioners. This view was supported by the executive operational risk and senior manager ERM:

The lack of effectiveness of the role of risk practitioners challenging business decisions is based on the structure of the organisation. (P1)

When asked whether they practised risk challenge, more than half of the participants answered “yes” but felt that the way in which they practised risk challenge was affected by the fact that business managers lacked understanding of this kind of risk role. Seven codes linked to the role of risk function emerged from the transcripts (Table 1). Being invited to a seat at the decision-making table was seen by participants as a demonstration that their risk roles were understood. The executive of operational risk suggested that risk practitioners should at times use their professional judgement in terms of expressing themselves as being sceptical but optimistic when they ‘played devil's advocate’ during debates and discussions around business decisions to be made. Diplomacy and the tone of the challenge were identified by the executive ERM as useful contributors to the way in which risk practitioners should fulfil their risk role, and the head of compliance added that tailoring one’s approach during debates and discussions was also necessary. To enhance the quality of debates and discussions when decisions were being made, an operational risk manager said that risk challenge should not be a one-sided activity from risk practitioners only, but should also come from business management’s side.

By way of summary, when participants were asked if they had any recommendations to improve how risk challenge is practised, the heads of compliance and executive compliance, respectively, suggested:

Tailoring one's approach when dealing with first line function. (P13)

... be humble, be respectful and polite, be honest but respectful, honest in how you are being challenged and in how you're challenging. (P11)

THEME 3: LEADERSHIP AND RISK ACCOUNTABILITY

After the organisational restructure in 2019 of the company under study, the newly appointed CEO introduced risk challenge related measures that were experienced by most participants as positive. He encouraged debates and discussions about risk and he challenged business executive on issues raised in risk reports. He also moved accountability for risk to those who take the risks (first line management). This led to more accountability, as business executives had to understand their obligation to include considerations of risk when taking business decisions.

Participants were asked to provide instances of difficulties they experienced when faced with business decisions that they challenged. The executive operational risk emphasised the role of leadership and its influence by sharing an experience he had had which had led him to feel that risk challenge was not taken as seriously in the past as under the current CEO.

The current CEO initiated a programme in 2019 to enhance the risk and control environment within the organisation. Tone at the top has been noted as one of the indicators of a sound risk culture FSB (2014) and this was illustrated when, owing to the CEO’s direct involvement with the

programme, accountability for risk was strengthened. The executive ERM commented how this programme had assisted him in the practice of risk challenge, adding the direct influence of leadership in motivating him to do what was needed:

I mean, that was the programme sponsored from the top. So, I guess that ushered me in to be able to challenge people. (P11)

THEME 4: CONSULTATION PROCESS

The value that organisations place on risk management is determined by internal consultative processes before and after risk debates and discussions have taken place. Important enablers during the consultation process when business decisions are taken include having the right person at the decision-making table, the timing of risk challenge, substance over form (meaning that risk challenge takes place without documentation of the debates and discussion), and embedded organisational practices. These five elements constituted notable input provided by participants, and were therefore identified as codes and grouped into the theme of ‘consultation process’ (Table 1).

The manner in which the business is structured, including governance structures, allows for risk challenge to take place effectively. With governance structures in place and the risk practitioner at the decision-making table to offer risk challenge or advice, it becomes easier for everyone, including those involved with the business decisions, to understand the organisational objectives. These participant views are supported by Zaaiman et al. (2021), who identify risk understanding as an indicator of risk culture. Roeschmann (2014) agrees when referring to how an organisation’s risk culture determines the way risks are identified, understood, discussed and acted upon. Risk practitioners also need an understanding of the scope of what is required from them when approaching debates and discussions, and of the time required to complete a risk assessment. How to respond is determined by how well the organisation’s consultation processes are embedded.

THEME 5: INFORMATION AND COMMUNICATION

Many business decisions were happening across the organisation, and the existing number of risk practitioners was insufficient for them to keep up with the pace and be able to practice appropriate risk challenge. In these conditions, it was crucial for information to be made available to risk practitioners on time, to allow them to provide the right input in debates and discussions. Where business decisions are communicated without previously engaging risk practitioners to challenge those decisions effectively, the practice of risk challenge is hampered and its value is diminished. Traditionally, risk practitioners had enough time to debate and discuss possible risks associated with business decisions; in an agile organisational environment where business decisions are made at a faster pace, the traditional way of thinking about risks and preparing for potential business challenges becomes a problem.

A European study by Gorzen-Mitka (2018) uses risk markers as indicators of the maturity of risk culture in an organisation. One of these, stronger transparency of risk information, is relevant to the present research. When quality information is made available in good time, risk practitioners can more easily engage business management proactively before decisions are made. Group

dynamics can either enable this process of communicating or complicate it when the environment is fast-moving and dynamic, as was pointed out by a senior operational risk manager:

I think the bigger challenge is for business where generally the environments are quite dynamic, and discussions and decisions need to happen without too much consultation. Otherwise, too much consultation kind of stifles the process. (P4)

Management practices and information structures are cited by Ashby et al. (2012) as key issues that contribute to overall risk culture, and, as this theme of communication and information reveals, they can also affect the practice of risk challenge.

5. CONCLUSION

A restructuring process undertaken by the South African life insurance company under study presented an opportunity to explore the practice of risk challenge. The literature revealed risk regulation as well as risk challenge to be integral to operational risk in the financial services industry, and to contribute to better risk management and improved decision making. To address the gap in the literature relating to the practice of risk challenge in the financial sector of life insurance, this study aimed to explore real-world experiences of risk challenge as applied and practised in a South African life insurance organisation when business decisions are made. Qualitative data were obtained from interviews with risk practitioners who offered their perceptions of risk challenge practice in the organisation, and further views came from two compliance managers and two enterprise-wide risk managers.

Most of the participants felt that risk challenge practices could be improved in the organisation and that decision-making processes could benefit from well-informed and justified risk challenge by risk practitioners. Moreover, they felt that risk challenge should not be seen as a “loose standing” action but needs to be supported by other risk management features such as risk function, tone from the top, leadership and accountability, the consultation process, and information and communication. The study data were therefore found to support indicators and markers of risk culture found in the literature that have been identified as contributing to informed and risk-tolerant decision-making in organisations.

The study also found, from the participants’ descriptions of practice, that risk challenge should not be a threat to business managers; its purpose is rather to strengthen the relationship between the two parties and the decision-making process when buy-in comes from both sides. In addition, key features of particular interest to operational risk managers were revealed through the research – the credibility of the risk practitioners posing the challenge; their courage to speak; and their professional ability to challenge business operations. Group dynamics was also found to be a necessary element required of risk practitioners to improve the practice of risk challenge.

The results of this study are not generalisable, but they nevertheless offer suggestions that could enable operational risk practitioners to practice risk challenge with confidence and thereby assist the business in proactively considering risks that may impede the meeting of business objectives. The study outcomes could also be a useful starting point for to risk industry bodies such as the Institute of Risk Management South Africa to consider what characteristics to look out for in a risk practitioner. This research provides valuable insights on risk challenge from a risk

practitioner's perspective. Future research could add additional insights from business managers and other decision makers about their views of risk challenge as they encounter it.

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APPENDICES

Appendix A

Interview questions

| Question | General or specific question | Reason for the question and link to objectives of the study |
|--|--|---|
| <p>1. Risk challenge usually refers to risk discussions and debates on risk-related decisions and includes actions such as:</p> <ul style="list-style-type: none"> a. allowing the testing of current practices, b. fostering positive constructive critical culture amongst employees, and c. creating an environment that is open for constructive engagement. <p>2. Do you have anything to add to this description of 'risk challenge'?</p> | General | <p>To ascertain and confirm that there is the same level of understanding of the concept of risk challenge.</p> <p>Note: Although Question 1 was a statement, it was reiterated to all participants and Question 2 was the follow-up question related to the statement.</p> <p>Question is related to understanding of risk challenge in the organisation.</p> |
| <p>3. Based on your understanding of the concept of 'risk challenge', do you believe there is a common practice of risk challenge across the organisation? If your answer is "No", please proceed to Question 4, if "Yes" please proceed to Question 5.</p> | General | Question was asked to explore the extent to which risk challenge is practised by operational risk managers. |
| <p>4. In your opinion, what do you believe contributes to different levels of 'risk challenge' practices across the group?</p> | Ideal position question | Purpose of question was to assess the situation and suggest guidelines to improve the practice of risk challenge |
| <p>5. Based on your role as a risk professional, how well do you believe you practise 'risk challenge' in your organisation?</p> | Specific to risk practitioners Opinion and value question | To identify any potential gaps in the way risk challenge is practised. |
| <p>6. Please provide instances where you experienced difficulties when faced with business decisions that you challenged.</p> | Specific to risk practitioners | To identify any potential gaps in the application of risk challenge. |

| | | |
|--|---|---|
| | Experience and behaviour question | |
| 7. What are the recommendations that you believe will assist risk managers to improve the culture of 'risk challenge' in the organisation? | Specific Ideal position and knowledge question | Purpose of question was to assess the situation and suggest guidelines to improve the practice of risk challenge. Participants were provided with the opportunity to contribute towards possible changes to how risk managers apply risk challenge. |

Participant roles and allocated legend

| Role | Participant allocated legend | Number of participants |
|--|------------------------------|------------------------|
| Executive Operational Risk | P1 | 1 |
| Heads Operational Risk | P2, P3 | 2 |
| Senior Managers Operational Risk | P4 to P7 | 4 |
| Managers Operational Risk | P8, P9 | 2 |
| Executive Enterprise Risk Management (ERM) | P11 | 1 |
| Senior Manager ERM | P10 | 1 |
| Heads Compliance Risk Management | P12, P13 | 2 |

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CYBER SECURITY RISK CULTURE: TELECOMMUNICATIONS RISK REPORTING

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ABSTRACT

In a digital world, telecommunications companies provide computer-based technology (referred to as cyber technology) that allows people and businesses to communicate and conduct business. To protect these users against the dangers and threats associated with cyber technology, cyber security must ensure that the technology is operating as expected, cannot be tampered with, and is available when required. The present risk culture study investigated perceptions of internal risk reporting for decision making by two groups of participants: cyber security practitioners working in a cyber security unit, and senior managers responsible for cyber security but not working directly in the cyber security unit. The research used a qualitative approach to collect data in a telecommunications company, based on a review of the literature, document analysis, and semi-structured interviews, followed and underpinned by qualitative data analysis. Cyber risk reporting that fails to meet the objective of enhancing decision making could result in risks to the organisation and its customers. Our findings showed that although the company's cyber security unit had all the textbook policies and procedures in place for risk reporting, in practice the guidelines for risk reporting seemed not to be adequate to the task. It is recommended that organisations in which cyber security is a key pay close attention to appropriate reporting guidelines for risk data aggregation and reporting. As this was an exploratory study on internal cyber risk reporting, the findings highlighted interesting areas for further research. These include challenges in cyber risk reporting, the monitoring of the contribution of cyber risk reporting to enable decision making, the importance of the accuracy of information gathered, risk reporting to internal audiences, and organisational structures and responsibilities for risk reporting.

Keywords: Risk reporting, Risk data, Risk management, Risk culture, Risk awareness, Cyber security.

1. INTRODUCTION

In a world where the media increasingly features cyber security attacks, breaches and threats, decision making under difficult circumstances requires timely, accurate and comprehensive reporting. Such "risk reporting" forms an integral part of decision making. However, the academic

literature does not seem to contain clear guidelines on risk reporting for decision making related to cyber security risk management in a telecommunications environment. Formulating risk reporting standards within the cyber security risk management framework could strengthen governance, risk management and compliance through risk-based decision making.

Telecommunications service providers connect and enable the world to communicate and interact through email and social media, and to use technology to transact and conduct day-to-day business. Technology supported by people and processes needs, from a cyber security perspective, to adhere to the Confidentiality, Integrity and Availability Triad (CIA triad) (Gordon, 2015, pp. 7-8) as core security concepts or controls identified by the Federal Information Security Management Act of 2002 (FISMA, 2002) in the United States of America. Their function is to mitigate or reduce the risks of loss, disruption, or corruption of information (FISMA, 2002). In summary, the CIA triad represents the following: (1) confidentiality – ensuring that only the intended authorised people have access to the information; (2) integrity – providing assurance that information is accurate and cannot be tampered with; and (3) availability – assurance that systems and information are always in working order when required (FIPS PUB 199, 2004). These three cyber security principles apply to risk management people, processes, and technology (SABS, 2009).

Risk management is a coordinated process with activities designed to understand, direct and control the potential threats to an entity's attempts to achieve its corporate objectives (CIMA, 2008; ISO, 2009). Risk in the context of the present paper refers to uncertainties that could negatively or positively impact on the achievement of business objectives (Purdy, 2010). Table 1 provides further definitions used in this study.

Table 5: Definitions

| Term | Explanation | Sources |
|--------------------------------|--|---|
| Cyber | Refers to anything which relates to, or characterises, the culture of computers, information technology, and virtual reality. | (Gcaza, von Solms, Grobler, & van Vuuren, 2017) |
| Cyber security | The collection of tools, policies, security concepts, security safeguards, guidelines, risk management approaches, actions, training, best practices, assurance and technologies that can be used to protect the cyber environment and organisation and users' | (von Solms & van Niekerk, 2013) |
| Cyber security risk management | Refers to the identification of the requirements (asset values, threats, vulnerabilities, existing safeguards, etc.); the analysis of threats, vulnerabilities and the scenario risk measurement; the acceptance test; and the selection and implementation of safeguards. | (Fenz, Heurix, Neubauer, & Pechstein, 2014) |

To manage risks in a landscape with ever-increasing cyber security threats, reporting could be the vehicle for transforming risk data into usable information by ensuring that the right information is available for decision making to manage and act on security risks.

According to the United Kingdom's Institute of Risk Management (IRM, 2012a), risk reporting refers to the development and implementation of a risk measurement, performance and reporting framework. Despite decades of research and various security risk frameworks, the security risk management domain still faces numerous challenges (Fenz et al., 2014). Various important variables have been identified as requirements for cultivating a cyber security culture (Gcaza et al., 2017). Transparent and timely reporting as well as the encouragement of risk reporting is one of these variables, and an indicator of a good risk culture (IRM, 2012b).

The objective of the present risk culture study in a telecommunications organisation was to assess perceptions of internal risk reporting for decision making as it applies to (1) cyber security practitioners working in a cyber security unit; and (2) senior managers not working directly in the cyber security unit, but responsible for business decisions based on the reporting from the cyber security unit.

Reporting requirements differ for cyber security practitioners and senior management because of the nature of their functions. Security practitioners need reporting from a governance, risk management and assurance perspective to ensure compliance and coverage of all the cyber security controls. They further need real-time reporting on cyber incidents to actively and proactively manage and address security risks as and when they occur. Senior managers have a supporting role concerned with the general health of the company's cyber security posture. From a logistical perspective, they drive regulatory requirements and need to ensure that the security unit is governed adequately. Together with the cyber security practitioners, senior managers must make certain that the organisation follows a comprehensive security risk framework to cultivate a security-aware culture (Da Veiga & Eloff, 2010). In the world of cyber security, it is a known fact that you are as safe and secure as the weakest link within your armour. It is therefore important to ensure that the organisation's investment in cyber security is built on a risk culture of best practice risk reporting.

This study aimed to improve cyber security risk culture through the application of best practice risk reporting, thereby enhancing decision making by cyber security practitioners and senior management. As what seems to be the first study on risk culture within a cyber security environment, this research was designed to contribute to the maturity of the cyber risk framework for risk data and reporting in the organisation under study and to demonstrate the value of integrated risk reporting.

This article is structured as follows. First, a literature review of best practice for risk reporting is presented as part of the background. Next, the research methodology is described, followed by the results and discussion. The final section summarises the key issues and draws conclusions from the document analysis, literature study and interviews.

2. BACKGROUND

In February 1903, shortly after London's *St James Gazette* reported that the Italian radio (telecommunications) pioneer Guglielmo Marconi had claimed that his new wireless invention was secure, the first instance of a cyber-attack took place (Marks, 2011). Nevil Maskelyne (the

hacker), who breached the wireless invention, publicly acknowledged in *The Times of London* that his motivation had been to prove that his prank (hack) was for the public good, warning of the holes (risks) in the “secure” Marconi network (Marks, 2011).

A century later, telecommunications and information technology (IT) have evolved and provide 24/7 communication and data services on a global scale to millions of users. In South Africa alone, the two largest telecommunication operators service approximately 70% of the population, which amounts to almost 60 million subscribers (BusinessTech, 2017). Huge subscriber bases, and the fact that cyber criminals and attacks escalate by the day, mean that cyber security is currently viewed as one of the top ten risks (threats) to organisations globally (IRMSA, 2018).

Technology within a telecommunications environment requires more than just applying security controls to govern an organisation’s cyber security requirements (Da Veiga & Eloff, 2010). It also requires a security-aware culture to minimise technology-specific security risks, address people-specific risks relating to employee misbehaviour, and assist with the protection of information assets by applying risk driven processes (Da Veiga & Eloff, 2010). Furthermore, organisations need to assess and regularly report the state of their internal security culture within the organisation (Da Veiga & Eloff, 2010). The basis for any organisational risk reporting used for internal and external decision making starts with the risk framework used to perform risk management (Epstein & Rejc, 2006). Risk reporting therefore has the important function of providing guidance and support to practitioners and management for decision making and could therefore have a significant impact on an organisation’s security culture (Knapp Kenneth J, Marshall Thomas E, Kelly Rainer R, & Nelson Ford F, 2006).

To manage cyber security efficiently, it is important to ‘build a strong organisational risk culture in cyber security’ (Corradini & Nardelli, 2018). This is especially important from a regulatory perspective, and regulators within the financial sector support and promote a risk culture based on voluntary disclosure and reporting (BIS, 2012; OECD, 2014). Telecommunication in South Africa is regulated by the Independent Communications Authority of South Africa (ICASA, 2018) from a communications, broadcasting and postal service perspective (ICASA, 2018), while integrated frameworks addressing corporate risk disclosure for cyber security have been defined in the United States by regulators in the Payment Card Industry Data Security Standard (PCI, 2018) and the United States by the Sarbanes-Oxley Act (SOX, 2002), and by the International Organisation for Standardization (ISO, 2018). The King Report on Corporate Governance in South Africa (Corvino, Doni, & Bianchi Martini, 2020) facilitated the transition to integrated reporting as defined by the International Integrated Reporting Framework (Wachira, Berndt, & Romero, 2020). Despite the South African Protection of Personal Information Act (POPIA, 2013) and the Cybercrime and Cybersecurity Bill (Bill 40487, 2020) formalising disclosures, the expectations for cyber reporting guidelines remain generic. Consequently, the key risk culture guidelines for business are taken from the Financial Services Board (FSB) (FSB, 2014) and the Basel Committee on Banking Supervision (BCBS) (BIS, 2015). The guidelines they provide for risk culture became effective in July 2015 (BIS, 2015) and the Principles for effective risk data aggregation and risk reporting (“the Principles”) became effective in January 2016 (BIS, 2017).

The FSB and BCBS emphasised the responsibility of senior management for setting the tone within an organisation to facilitate a risk culture (BIS, 2011, 2017; FSB, 2013, 2014, 2017). This is done by management defining a governance framework with a formal risk management strategy consisting of a policy, risk framework and risk appetite for the organisation (Epstein & Rejc, 2006; ISO, 2009). The function of a policy in this context is to define the framework for a cyber security risk programme, thereby ensuring that roles and responsibilities have been defined while communicating the organisation's cyber security goals and objectives (Gordon, 2015, p. 119).

To enable management to take the right decisions in a timely manner, the BCBS (BIS, 2012, 2013, 2017) published Standard 239 in January 2013 ("the Principles"). The objectives of these Principles are to manage data and enable reporting needed for decision making based on key risks identified across an organisation (BIS, 2017). Good decision making could be achieved by ensuring that a supporting IT infrastructure is in place and by striving to reduce the probability and severity of possible losses resulting from weaknesses in risk management processes (BIS, 2017). By improving the requirements to provide reporting sooner rather than later for quicker decision making, the quality of operational, tactical and strategic planning would enable stakeholders to manage the risk of new products and services (BIS, 2017).

It is noteworthy that when management reports on measurable facts, such as commercially sensitive information, the reports tend to be generic to avoid and protect the organisation against competitors, rather than specifying company-specific risk requirements (Linsley & Shrivess, 2005). This results in unclear communication, especially when management is defending and promoting organisational reputation, rather than explaining how the organisational activities impact many areas within the organisation (Haji & Hossain, 2016). Consequently, risk reports do not always provide a complete picture of the actual risks facing organisations, which implies that concise reporting seems to be more symbolic than instrumental (Hrasky & Smith, 2008). A South African study that investigated reporting over a ten-year period found that corporate risk disclosures immediately before and after the 2007/2008 global financial crisis were largely 'non-financial', 'historical', 'good news' and 'qualitative' in nature (Ntim, Lindop, & Thomas, 2013). Failure to integrate risks fully into strategic and operational decisions could therefore be linked directly to inadequate risk reporting (Epstein & Rejc, 2006). More frequent use of automated tools for reporting large amounts of data could assist with the improvement of reporting, but could also lead to a false sense of security if the content and context of the reporting are incorrectly analysed (Finn, M., Eliot, & J., 2007). In addition, harmonizing reporting standards could improve the comparability and reliability of information, making reports easier for investors and decision makers to analyse and to understand (Daniel & Michael, 2014).

The Principles, effective January 2016 as a regulatory requirement for banking and a leading instrument in this field, provided guidelines that were used as the basis for best practice reporting (BIS, 2017). Even though much has been written and published on reporting within the financial world (BIS, 2013), no specific material or research could be found specifically relating to the sphere of cyber security, where reporting is vital to manage the danger of cyber threats. The present study therefore investigated the alignment of risk reporting to recommended best practice in the

cyber security unit of a South African telecommunications company and sought to obtain a better understanding of the associated risk culture. The aim was to improve the risk culture through improved risk reporting, thereby enhancing decision making in the cyber security unit within the company.

3. METHOD

Research approach

This exploratory study followed a qualitative approach based on a literature review, document analysis, and interviews. The literature review established best practice in risk reporting. The findings from the document analysis and interviews were then compared with the reporting best practices established from the literature.

Sampling and data collection

Participants

The study employed purposive sampling (Lewis & Saunders, 2012, pp. 138-139) for the interviews, targeting the six senior cyber security practitioners and five senior managers directly associated with the cyber security unit. These participants were selected because they could (purposefully) offer information based on their professional qualifications, roles and executive experience in the cyber security domain. The demographic description of the participants is provided in the findings section below. The roles and functions of the participants in the workplace included the creation, analysis, and interpretation of risk reporting for decision making. This was an important consideration for the present study given the serious nature of cyber security threats and the focus here on risk reporting. The engagement with the participants was primarily through the researcher's employment in the cyber security unit of the organisation under study.

Literature review

A review of the academic literature was conducted to situate the study in terms of best practice risk reporting. Special attention was placed on Standard 239, used as a reporting guideline in the financial sector to provide specific principles for risk data aggregation and risk reporting (BIS, 2011, 2012, 2017). The following key items provided substantiation for the principles of risk reporting established from Standard 239: 'The reporting of organisational risks for internal and external decision making' (Epstein & Rejc, 2006); 'Risk culture Resources for practitioners' (IRM, 2012a); 'Guidance on supervisory interaction with financial institutions on risk culture: a framework for assessing risk culture' (FSB, 2014); 'Guidance on supervisory interaction with financial institutions on risk culture: a framework for assessing risk culture' (FSB, 2014); 'Supervision of behaviour and culture: foundations, practice & future developments' (DNB, 2015) and 'Information paper – Risk Culture' (APRA, 2016).

Document analysis

As suggested by Bowen (2009), document analysis was performed on existing internal risk data and reporting practices within the cyber security unit to contextualise the research and to provide

institution-specific supplementary data. The information derived from these documents was compared with the findings from the literature review.

Interviews

Semi-structured interviews with the cyber security practitioners and senior managers were conducted to obtain their perceptions about risk data and risk reporting. Open-ended questions, based on a pre-defined interview guide, were employed to gain detailed understanding of their views. Prior to the actual interviews, three pilot interviews were conducted to test the data collection process and to make adjustments where necessary.

Data analysis

The interviews were voice recorded and later transcribed for the purpose of data analysis. Coding was used to identify structures and patterned uniformities and to determine inferences on the basis of keywords and themes identified from the literature (Collis & Hussey, 2013, p. 171). A three-step process was employed as follows:

- (1) Establishing from the literature the prescribed best practice requirements for internal risk reporting. This entailed aggregating the codes or principles from the literature into themes or code categories. Themed or code categories are broad units of information that consist of several codes aggregated to form a common idea (Creswell, 2014, p. 99).
- (2) Document analysis of internal documentation governing the cyber security unit and comparison of the results to the prescribed best practices established from the literature; and
- (3) Coding the interview data and comparing the transcribed results to the prescribed best practices established from the literature.

The coding of the interview data was conducted by using Quirkos (Quirkos, 2018), a qualitative data analysis software application (Stuckey, 2015). Further statistical analytics were done using “Microsoft Excel” (Meyer & Avery, 2009).

Ethical considerations

All ethical requirements prescribed by the Faculty of Economic and Management Science of the North-West University were followed. These included obtaining the approval of the Faculty Ethics Committee as well as informed consent from those participating in interviews. Owing to the sensitivity of cyber security, special permission was also requested and granted by the company to conduct the study.

4. RESULTS AND DISCUSSION

For the purpose of explanation and analysis, four key themes were identified (Table 6). These align with the Principles (BIS, 2017) defined for reporting in financial institutions and were used as a baseline for the present risk reporting study.

Table 6: Principles of risk data aggregation and risk reporting

| Primary risk data and reporting topics | Source |
|--|-------------------------|
| A. Risk Governance Framework and IT Infrastructure | (BIS, 2012, 2013, 2017) |
| B. Risk Data Aggregation Capabilities and Quality | (BIS, 2012, 2013, 2017) |
| C. Risk Communication and Reporting Practices | (BIS, 2012, 2013, 2017) |
| D. Decision Making and Risk Culture | (BIS, 2012, 2013, 2017) |

Standard 239 (BIS, 2012, 2013, 2017) defined 14 Principles associated with the four themes in Table 2 and formed the main codes for comparison with the codes from the document analysis and the interview data. These 14 codes were expanded to 20 codes after examination of further literature supporting these principles.

The 20 codes were used for the document analysis of the institution-specific cyber security documentation relating to risk reporting, thereby providing supplementary data relating to the existing processes in place for risk reporting in the organisation, and a baseline for understanding the perceptions of the practitioners that emerged in the interviews.

Demographic statistics of interview participants

Table 3 provides the demographic profiles of participants in the study. Cyber security still seems to be predominately male orientated, as distinct from senior management where males and females were more equally represented.

Table 3: Participants demographic profiles

| Demographic characteristics | Frequency (%) | |
|-----------------------------|--------------------------------|----|
| Gender | Male | 73 |
| | Female | 27 |
| Role function | Cyber practitioner | 55 |
| | Senior management | 45 |
| Age in years | 20 to 29 | 9 |
| | 30 to 39 | 45 |
| | 40 to 49 | 18 |
| | 50 to 59 | 27 |
| Experience in years | 1 to 5 | 28 |
| | 5 to 10 | 27 |
| | 10 to 15 | 45 |
| Education | University bachelor's degree | 73 |
| | University postgraduate degree | 27 |

The experience and the qualifications of the participating cyber security practitioners and senior managers confirm global acknowledgment that cyber security is a highly specialised area which requires knowledge and experience (Kennedy, 2018).

Perceptions of risk reporting within the cyber security unit

Table 7: A comparison of the findings from the document analysis and interviews with the principles of risk data aggregation and risk reporting

| No | Principle code (best practice) | Code description from the literature | Example from document analysis | Examples from interviews |
|----|--------------------------------|--|--|---|
| 1. | Risk Governance Framework | ‘An organisation should design, build and maintain data architecture and IT infrastructure which fully supports its risk data aggregation capabilities and risk reporting practices not only in normal times but also during times of stress or crisis, while still meeting the other Principles.’ (BIS, 2017) | ‘This implies that information assets shall be identified, valued, assessed for risk and protected cost effectively from threats.’ | <i>‘I think from a framework point of view, from what risk is and a risk and controls point of view, we have proper governance with a team that looks at what is required from a strategy point of view, set programs that ensure we are at the best practise level from a security point of view.’</i> |
| 2. | IT Infrastructure | ‘An organisation should design, build and maintain data architecture and IT infrastructure which fully supports its risk data aggregation capabilities and risk reporting practices not only in normal times but also during times of stress or crisis, while still meeting the other Principles.’ (BIS, 2017) | ‘...to apply an effective and consistent level of security to all Technology Systems used over the organisation’s Technology infrastructure.’ | <i>‘We do have tooling in place to assist with this process, we have information covering our infrastructure and from an assurance perspective, we build some validation processes in to assure we scan what we need to and if not, we can identify the gaps, where they are and manage it to make our coverage and information as accurate as possible.’</i> |
| 3. | Governance | ‘An organisation’s risk data aggregation capabilities and risk reporting practices should be subject to strong governance arrangements consistent with other principles.’ (BIS, 2017) | ‘Information Security and Technology Security policies, standards, guidelines and procedures shall be developed to communicate security requirements and guide the selection and implementation of security control measures.’ | <i>‘If I had to put it on scales say 1 to 3, with 1 properly governed and 3 poorly governed, I’ll put it at a 1.5 Reason being we do have processes in place, but we don’t have an overview of the processes in place managing risk data.’</i> |
| 4. | Risk Management | ‘Foundations include your risk management policy, objectives, mandate, and commitment. Arrangements include the plans, relationships, accountabilities, resources, processes, and activities you use to manage your organisation’s risk.’ (ISO, 2009) | ‘The following security management aspects shall be addressed: Technology Risk Management.’ | <i>‘What we do have from an operational perspective is a risk management process to assess projects, identify and assess risks, create a risk register as form of report to the business owner who needs to decide how we are going to manage the risks identified. From this perspective we cover all our deliverables throughout the delivery cycle.’</i> |
| 5. | Compliance and Regulations | ‘Risk management reports should include exposure and position information for all significant risk and all significant components of those risk areas. Risk management reports should also cover risk-related measures like regulatory and | ‘In protecting its information assets, the company shall obey all applicable laws and regulations and charges its employees to meet the highest ethical standards and compliance.’ | <i>‘Reporting speaks specifically on compliance and I do not think that we cover all areas adequately.’</i> |

| No | Principle code (best practice) | Code description from the literature | Example from document analysis | Examples from interviews |
|-----|--|---|--|---|
| 6. | Risk Data: Quality of Risk-Related Information | economic capital.’ (BIS, 2012) ‘Information must be sufficient and accurate, it must also be presented so that all group members can understand it, and it should include a summary of various decision alternatives and their consequences. Even if information requirements are satisfactory, impending group behavioural patterns and insufficient challenge may still result in poor decision-making.’ (DNB, 2015) | ‘Information is an important asset that shall be protected according to its value and the degree of damage that could result from its misuse, unavailability, destruction, unauthorised disclosure or modification.’ | <i>‘The biggest criticism is usually around techno jargon since I have to work with the teams to write up a report of press release, we are not necessarily technically inclined which requires the information to be translated or explained in simple terms to understand.’</i> |
| 7. | Risk Data: Accuracy and Integrity | ‘...should be able to generate accurate and reliable risk data to meet normal and stress / crisis reporting accuracy requirements. Data should be aggregated on a largely automated basis so as to minimise the probability of errors.’ (BIS, 2017) | ‘Information owners are the business owners who require that information be available as and when it is required for business decisions, accurate in terms of the integrity of the information.’ | <i>‘The fact that human intervention is still quite predominant is a problem – it impacts both accuracy and integrity since reporting is interpreted and adjusted according to the reporter’s understanding.’</i> |
| 8. | Risk Data: Completeness | ‘...should be able to capture and aggregate all material risk data across the group. Data should be available by business line, legal entity, asset type, etc. and other groupings, as relevant for the risk in question, that permit identifying and reporting risk exposures, concentrations and emerging risks.’ (BIS, 2017) | ‘Complete, updated manuals / documentation / data shall be available to operators, programmers, users and auditors as applicable.’ | <i>‘We use a lot of checks and balances like record checks and hash values for both completeness, accuracy and integrity of the data. From my job’s perspective, even though I trust, we always check or verify the data.’</i> |
| 9. | Risk Data: Timeliness | ‘An organisation should be able to generate aggregate and up-to-date risk data in a timely manner while also meeting the principles relating to accuracy and integrity, completeness and adaptability.’ (BIS, 2017) | ‘Information owner requires that the system owner provide accurate information at the time it is required for business decision making.’ | <i>‘We get the data / reporting in real time and we have all the screens and so on, however by the time it is presented or reaches the executives so much time has transpired that the decisions they need to make is based on old data.’</i> |
| 10. | Risk Data: Adaptability | ‘An organisation should be able to generate aggregate risk data to meet a broad range of on-demand, ad hoc risk management reporting requests, including requests during stress / crisis situations, requests due to changing internal needs and requests to meet supervisory queries.’ (BIS, 2017) | ‘To conduct the independent review and examination of system records and activities in order to test for adequacy of system controls, to ensure compliance with established policy and operational procedure, and to recommend any indicated changes in controls, policy or procedures.’ | <i>‘We are not adaptable enough to report quicker – we mostly report on old data making decision making difficult.’</i> |
| 11. | Risk Data: Aggregation | ‘The term “risk data aggregation” means defining, | ‘All aspects of technology that are used to manage and | <i>‘From a technical perspective very comprehensive, but from</i> |

| No | Principle code (best practice) | Code description from the literature | Example from document analysis | Examples from interviews |
|-----|--|---|---|---|
| | | gathering and processing risk data according to risk reporting requirements to enable the bank to measure its performance against its risk tolerance / appetite. This includes sorting, merging or breaking down sets of data.’ (BIS, 2013) | support the efficient gathering, processing, storing and dissemination of information as a strategic resource.’ | <i>an aggregation of data not on the same level yet, room for improvement.’</i> |
| 12. | Risk Communication / Reporting Practices | ‘A culture of open communication and collaboration is constantly promoted to ensure that each employee’s view is valued, and the institution works together to strengthen risk-related decision making.’ (FSB, 2014) | ‘...and communications systems at the company shall provide information within a reasonable time’ | <i>‘I do not feel that the reporting is comprehensive enough and this relates again to the source, which is the design of the report, the design of the information, which is requested, it is the design in which the information is sourced, and that is why I am a big fan of automation.’</i> |
| 13. | Reporting: Accuracy and Integrity | ‘Risk management reports should accurately and precisely convey aggregated risk data and reflect risk in an exact manner. Reports should be reconciled and validated.’ (BIS, 2013) | ‘...information be available as and when it is required for business decisions, accurate in terms of the integrity of the information, and that confidentiality be maintained.’ | <i>‘The fact that human intervention is still quite predominant is a problem – it impacts both accuracy and integrity since reporting is interpreted and adjusted according to the reporter’s understanding.’</i> |
| 14. | Reporting: Comprehensiveness | ‘Risk management reports should cover all material risk areas within the organisation. The depth and scope of these reports should be consistent with the size and complexity of the bank’s operations and risk profile, as well as the requirements of the recipients.’ (BIS, 2017) | ‘All aspects of technology that are used to manage and support the efficient gathering, processing, storing and dissemination of information as a strategic resource.’ | <i>‘We have different reports from various areas in business and they tend to provide the bigger picture, however the reporting from the cyber security unit does not provide the full picture.’</i> |
| 15. | Reporting: Clarity and Usefulness | ‘Risk management reports should communicate information in a clear and concise manner. Reports should be easy to understand yet comprehensive enough to facilitate informed decision-making. Reports should include an appropriate balance between risk data, analysis and interpretation, and qualitative explanations.’ (BIS, 2017) | ‘Applications and systems to support the business while utilising information technology as an enabler or tool.’ | <i>‘I believe the cyber team should go and sit and think about this and address this. Board members are only interested in two things: assurance that things are going well and highlight the problems. They are not interested in the number of attacks, etc., it is irrelevant to them.’</i> |
| 16. | Reporting: Frequency and Availability | ‘Frequency requirements should reflect the needs of the recipients, the nature of the risk reported, and the speed at which the risk can change, as well as the importance of reports in contributing to sound risk management and effective | ‘To preserve the availability, integrity and confidentiality of information systems and information according to affordable security practices.’ | <i>‘In terms of the security management aspect, I think there is much more to do in terms of maturing – first of all the report itself, the frequency thereof, and the relevance of what we report.’</i> |

| No | Principle code (best practice) | Code description from the literature | Example from document analysis | Examples from interviews |
|-----|---|--|---|--|
| | | and efficient decision-making across the bank. The frequency of reports should be increased during times of stress / crisis.’ (BIS, 2013) | | |
| 17. | Reporting: Distribution and Confidentiality | ‘Risk management reports should be distributed to the relevant parties and while ensuring confidentiality is maintained.’ (BIS, 2017) | ‘Recognising that some information is intended for specific individuals and shall not be appropriate for general distribution.’ | <i>‘There is a formal classification process in the organisation and reporting is handled on this basis with a need to know to the relevant stakeholders.’</i> |
| 18. | Decision Making and Risk Culture | ‘Risk behaviour comprises external observable risk-related actions, including risk-based decision-making, risk processes, risk communications etc.’ (IRM, 2012a) | ‘...who require that information be available as and when it is required for business decisions, accurate in terms of the integrity of the information, and that confidentiality be maintained.’ | <i>‘You can do the work but if it does not feed into a standard clear communication to people, you will not be able to make the right decisions if there is a need for it.’</i> |
| 19. | Risk Leadership: Tone | ‘The central role of leadership in shaping and driving both organisational and risk culture. The role of leadership also features prominently in academic literature. The FSB’s Guidance on Supervisory Interaction with Financial Institutions on Risk Culture refers to this as “tone from the top”.’ (APRA, 2016) | ‘It is the responsibility of the Risk Committee to support and ensure that the necessary guidelines is provided’ and ‘The following security management aspects shall be addressed.’ | <i>‘I would imagine that executive input might be highly required because then there would be comfort that we can look at, what sits in the final report, is really the key and important stuff, we did not leave anything behind that could have been required by executives to make a call as to whether things are red, amber or green and that everything was considered.’</i> |
| 20. | Risk Accountability | The FSB refers to accountability as occurring when the ‘Relevant employees at all levels understand the core values of the institution and its approach to risk, are capable of performing their prescribed roles, and are aware that they are held accountable for their actions in relation to the institution’s risk-taking behaviour.’ (FSB, 2014) | ‘Personal accountability and accountability for Cyber Security shall be incorporated in the organisational structures to ensure that every individual applies the applicable security policies, principles, procedures and practices in his / her daily work-related activities.’ | <i>‘We all have a responsibility within the organisation around security for example. And it starts with having the right risk data in place, have our risk reporting in place in order to report correctly to make informed decisions.’</i> |

Comparative overview

Table 4 compares the agreement among the best practices established from the literature (baseline requirements), the internal institution-specific risk reporting document analysis, and the interview data. The document analysis performed on the policies governing the institution’s cyber security unit indicated that the unit compared relatively well to best practice requirements in the literature as related to risk reporting. Although the cyber security unit in the study had all the relevant textbook policies and procedures in place, what seemed lacking was the application of a formal

risk management process supported by an integrated risk management tool. It was therefore recommended that the cyber security unit and organisation define and implement a clear and user-friendly set of risk reporting guidelines governing risk data and reporting.

Risk and risk management focus on the uncertainties that could affect business objectives and influence decision making capabilities. In the case of cyber risk reporting, the objective is “decision making” that assists the decision makers to secure the cyber technology used by the organisation and its customers. According to our study, cyber risk reporting that fails to meet this objective can result in vulnerability (risk) for the organisation and its customers. It was evident that the technical aspects of the reporting and the language used by cyber security practitioners posed challenges for the clarity and ease of use of the reports. Although senior managers proposed the automation of reporting, cyber security practitioners indicated that most technical reports are already automated. They emphasised the importance of having skilled practitioners to analyse the data and translate it into meaningful and understandable information for decision making. A challenge identified by the senior managers related to the design and definition of the reports themselves, especially since these depend on the audience, classification and purpose. Suggestions were made for the cyber security practitioners and senior managers to work closely together to ensure that reports produce the information required based on the reporting objectives. This interaction could address requirements where additional information might be needed by including a drill-down capability. Frequency and availability of reporting was highlighted as another area for improvement, as reports become outdated and less usable for effective decision making if they are not generated in real time.

5. CONCLUSION

The key principle of any security that is employed is that the defence is as strong as its weakest point. Given this reality, even if a cyber security unit were to deploy the most advanced cyber technology available and even if senior management were to apply best practice governance principles in its policies and procedures, where risk reporting is weak, decisions also become weak, and the organisation and its customers could be put at risk.

The research presented demonstrates the importance of cultivating a risk culture by implementing best practice risk reporting in day-to-day cyber security activities. These activities act as a risk management tool for identifying risks as well as opportunities for improving cyber risk reporting throughout the organisation, thereby enhancing decision-making capability and maintaining the institution’s defences against cybercrime.

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MEASURING RISK CULTURE MATURITY IN A SOUTH AFRICAN LOGISTICS ORGANISATION

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ABSTRACT

Successful companies actively manage their risks. To do this they apply advanced methods and tools to treat their exposures to risk. Risk management practices should therefore become pervasive in the daily operations of a company. One way of evaluating the sustainability of the risk management processes is to assess a company's risk culture. That was the objective of this study. A risk culture study, using a questionnaire, was undertaken across three management levels in a large national logistics company. The standardised Cronbach's alpha coefficient, which determines how well the risk culture questionnaire worked for the specific sample used in the study, was 0.96 and confirmed the reliability of all items used in the survey. From the analysis of the results, two factors were deduced to measure risk culture in the organisation. Insights inferred from the responses of the 734 participants indicated that demographic factors could influence the maturity of risk management in the company. Risk culture seems to be influenced by age, years of experience and years of service of the employees. Although the risk culture was mature for all management levels, middle management scored lower than senior and executive management on understanding of risk, resulting in sub-cultures within the organisation. Improvement opportunities identified by participants included improved risk communication, training, and the proactive use of risk information as a management decision support tool.

Keywords: risk culture; risk management; organisational culture; factor analysis

1. INTRODUCTION

For risk management to be effective, it needs to be intuitive and embedded in all decision-making processes (Banks, 2012, p. 18). The primary aim of this study was to establish the risk culture across the different levels of management in a large logistics company with a national footprint. The secondary aim was to investigate factors that could have an influence on the risk culture of the organisation. The final objective was to determine the risk culture maturity of the organisation. Part of the research methodology was to carry out a literature review to determine the characteristics and principles of corporate risk culture. This review yielded a theoretical basis for all the aspects of risk culture that were considered in designing the research. A survey questionnaire, which forms part of a larger study by North-West University, was used to assess

the risk culture of the company. The sample size of 734 respondents allowed for factor analysis on Likert scales, which was performed as part of the Centre for Applied Risk Management at North-West University (UARM) research programme. This analysis allowed for testing the validity and relationship of all items of the risk culture survey.

The survey data indicated that different risk sub-cultures existed among the three management levels in the organisation in respect of the *risk integration* factor and *the risk management understanding* sub-factor. The statistical analysis confirmed that differences in overall risk culture correlated with age, work experience and years of service at the organisation. Nevertheless, the analysis confirmed a mature risk culture at all management levels. This study thus contributes to the current body of knowledge on behavioural aspects of risk management.

2. BACKGROUND

A common theme detected in the reviewed literature frames risk as being present in all business decisions or activities. Discussions and debates about risk culture seem to be more advanced in the field of practice than in academia, therefore contributions from relevant practitioners and specific research performed by professional bodies were also considered in this study. The first stage of the literature review was dedicated to defining the key constructs of risk management, organisational culture, and finally risk culture.

Risk management

There seems to be no consensus on the definition of risk. Existing international standards offer different definitions. The COSO framework (2004) defines risk as “the possibility that an event will occur and adversely affect the achievement of objectives”. The ISO 31000 risk management standard (2009b) offers a very different definition: “risk is the effect of uncertainty on objectives”. Uncertainty without consequences does not pose a risk. Risk cannot be defined unless there is some context. The context relates to organisational objectives. It follows that risk is an uncertainty that could either have a negative or positive effect on one or more organisational objectives (Chapman, 2013). Despite the differences in the definitions, two features are commonly found: risk is related to uncertainty and consequences.

Enterprise risk management is seen as a robust method of managing risk and opportunity in an integrated and coordinated manner across an organisation with the aim to improve business performance. It is required that all staff in the organisation be involved to make the integrated risk management process successful (Chapman, 2013; Duckert, 2011). It can therefore be concluded that integrating risk into organisational decision-making is an essential enabler for the achievement of organisational objectives.

Organisational culture

In contrast to risk culture, an extensive body of literature in the field of organisational behaviour and culture has been produced since the 1980s. It is clear from previous research that cultures are

entrenched in both the material and symbolic practices of an organisation. These practices include formal policies, procedures, standards and informal behavioural customs (DiMaggio, 1997; Schein, 1996).

Substantial work was performed on organisational culture by Pettigrew (1979), who suggested that organisational cultures consist of cognitive systems that explain how people think, reason and make decisions. He argued that organisational culture consists of a complex set of values, assumptions and beliefs that define the way an organisation conducts its business activities. Multiple cultures and subcultures may exist in an organisation. Organisational culture is shaped by customs observed by people within the organisation. The risk management approach within an organisation is influenced by aspects of the wider dynamic sets of cultural factors.

Hofstede, Hofstede and Minkov (2010) reasoned that individuals' behaviour is partially determined by their "mental programs of thinking, feeling and action". Culture is the customary term for such mental software. Organisational culture is "the collective programming of the mind that distinguishes the members of one organisation from another". However, individuals could deviate from their mental software. Culture is learned, not innate, and is modified by the influences of collective programming.

Risk culture

Power, Ashby and Palermo (2013) have reported that the concept risk culture does not have well-defined features, but is rather something that organisations perform in different ways, and standardisation in approaches to risk culture in the near future is not foreseen. According to their research, discussions on risk culture draw mainly on conventional organisation theory. However, making risk culture more visible is at the heart of current regulatory and organisational research focus. Risk culture has been seen as a system of values and behaviours throughout an organisation that shape risk decisions (Farell and Hoon, 2010). Levy, Lamarre and Twining (2010) have defined risk culture as "the norms of behaviour for individuals and groups within an organisation that determines the collective ability to identify, understand, openly discuss and act on the organisation's current and future risks". A similar definition offered by Sheedy, Griffin and Barbour (2015) is that risk culture comprises "shared perceptions among employees of the relative priority given to risk management, including perceptions of the risk-related practices and behaviours that are expected, valued and supported".

Most of the other sources consulted concede that each institution has its own unique risk culture, which influences every action and decision within the institution, often covertly. Organisational risk culture is seen to be more than the sum of the individual personal risk attitudes of its employees. Furthermore, Power et al. (2013) found that risk cultures are unevenly distributed among different management levels within organisations. From the above definitions some common aspects of risk culture emerge. First, culture must be recognisable in the behaviour of groups and individuals. Second, the culture is based on organisational values. Finally, the culture is based on shared perceptions about approaches to the collective management of organisational

risks. For this study, organisational risk culture is defined as the way in which groups of people integrate risk when making decisions on uncertain future events that could have a negative impact on reaching the organisation's objectives.

Survey approaches to assess risk culture

Sources in both the practice literature and academic literature indicate that the survey method is a useful way to assess the prevailing risk culture in an organisation and is seen as key to a sustainable risk management programme. The material reviewed from the consulting firms support the view that risk culture can be distilled into a few factors in a formal risk culture model. The survey should therefore provide a means for evaluating results against the key attributes of an effective corporate risk culture, and it follows that this kind of assessment will assist an organisation in evaluating the effectiveness of its risk management value drivers. The Financial Stability Board (2014), from a supervisory point of view, considers the tone at the top, accountability, effective communication and incentives as important indicators of risk culture.

In similar vein, Levy et al. (2010) argue that numerous critical and mutually reinforcing elements demonstrate a strong risk culture, such as a well-communicated clear risk management strategy; effective information sharing and a high level of analytics; prompt escalations of issues and threats; visible felt leadership by management that demonstrates desired behaviours; and continuous challenging of actions and organisational biases at all levels of the institution. According to Smith and Kagan (2012), risk culture surveys should be categorised and analysed along key attributes of effective risk management and control. They propose dimensions that include leadership and strategy, accountability and reinforcement, people and communication, and risk management infrastructure.

The risk culture aspect model developed by the Institute of Risk Management (2012) involves grouping the key indicators of risk culture in four themes – tone at the top, governance, decision-making, and competency. The model is a diagnostic tool to identify gaps within the four themes and requires a self-assessment of the current state by the organisation. The model links with the sociability versus solidarity analysis. The focus is on addressing key identified gaps to enable incremental improvement over time to move the organisation towards a position that is more conducive to an effective enterprise risk management process. Power et al. (2013) state that the objective of a risk culture survey is to quantify and track the organisation's risk culture in terms of measurable factors and to prioritise those that may require improvement interventions. A rising factor score over time will signify improvements in the organisation's risk culture.

Concluding remarks on the literature review

The measurement of risk culture is extensively covered in practice notes and studies conducted by industry boards and regulatory bodies. According to the sources consulted, organisational risk culture is based on the norms, values, beliefs, knowledge and understanding in an organisation that combine to shape risk decisions.

3. METHOD

Participants

The primary research in this study focused on the following three management levels within the integrated logistics company:

- Executive management;
- Senior management; and
- Middle management, including professional staff.

Procedure and Measures

An online survey was distributed via email by the human resources department to randomly selected management team members to assess the risk culture of the organisation. Systematic random sampling was used to select a total of 1,003 management staff, out of a population of 6,019 employees, by applying a sampling fraction of 1/6 to the management payroll.

The main aim of the survey was to assess how participants viewed the levels of:

- Integration of risk management into the management of the organisation; and
- The practices of risk management as an enabler for achieving the organisational objectives.

The survey was left open for a period of two weeks and two follow-up reminders were sent to possible respondents. The survey was based on the pilot Risk Culture Questionnaire of 2016 (RCQ-2016) developed by the UARM, and items were set up such that multiple answers could not be provided except where expected. To derive data appropriate for addressing the research questions, the questionnaire had two parts. The first part sought demographic information including management level, organisational unit, age, gender, length of service, years of experience and qualifications, which served as moderating variables in further analysis of the results. This part of the RCQ-2016 survey was adjusted for use in this study to imitate company-specific nuances, such as naming conventions for organisational roles and operational areas.

The second part of the RCQ-2016 included risk culture items that were developed during workshops with masters-degree students and research group members. Questionnaire items were based on the key risk management practices that are linked to the definition of risk management. The definition of risk used for the purpose of the survey was *the negative effect of uncertainty on objectives*. The questionnaire consisted of 40 items and a 5-point Likert scale was used to test the extent to which respondents agreed or disagreed with a particular statement regarding individual risk culture variables. Two sets of 5-point Likert scales were used. The first consisted of 5 (*Always*), 4 (*Usually*), 3 (*Sometimes*), 2 (*Infrequently*) and 1 (*Never*) and was used for those survey items that determined the regularity of an activity. The second set consisted of 5 (*Perfectly*), 4 (*Well*), 3 (*Moderately well*), 2 (*Not well*) and 1 (*Not at all*) and was used for those items aimed at defining the level of acumen.

The UARM RCQ-2016 risk culture maturity model is based on the 5-point Likert-type answer scales for each factor. The maturity levels were used as initial indicators of the participants'

perception of risk management culture in the organisation. According to the model, a factor scores of above 3.5 is indicative of a mature risk culture in the organisation for that factor.

Analysis

Descriptive statistics and inferential analysis were used to describe and compare the results from the three groups. The emphasis of the analysis was on identifying significant differences among the management levels in the organisation. The sample size of 734 respondents translates into a 73 percent response rate. Responses in this study formed part of the factor analysis on the survey items used in the broader UARM study. The Cronbach alpha (α) reliability coefficient was calculated to determine the scale's internal consistency. Alpha coefficient ranges in value from 0 to 1 and is used to describe the reliability of items. The higher the score the more reliable the generated scale, and >0.7 is generally acceptable. The formula for Cronbach's alpha is:

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

Where:

N = the number of items.

\bar{c} = average covariance between item pairs.

\bar{v} = average variance.

Tests for normality were applied as part of the test selection process. Normality of the score distributions could not be assumed, and statistically significant differences were identified using the non-parametric Kruskal-Wallis test when comparing several unrelated groups. All the data are pooled and ranked from smallest to largest, then the sums of the ranks in each subgroup are added (Wilcoxon/rank-sums scores), and the probability is calculated. Significant differences among groups were tested at the 95% significance level. Analysis was performed on the demographic items to test if they could serve as diagnostic indicators of additional influences on risk culture within the organisation.

4. RESULTS

Demographics

The survey participants were mostly South African citizens of whom 63 percent were male. It was observed that 78 percent were in middle management, 20 percent in senior management and the balance in executive management. Most participants had a tertiary qualification – 35 percent at postgraduate level, 29 percent with bachelor's degrees and 25 percent with some other form of tertiary education. Almost 35% of the participants were below the age of 40 years, 60% between the ages of 40 and 60, and only 5% were 60 years or older (refer to Appendix A).

Risk culture factors

The goal of clustering related risk culture factors was to test which factors correlate with each other. These factors were based on the broader UARM pilot data, of which this study formed a part. The factor analysis performed on the larger UARM study reduced the number of survey items from 40 to 34. The UARM study identified two main risk culture factors. The first factor is termed *risk culture - risk integration* and the second *risk culture - diagnostic individual*. Further analysis of the second factor resulted in two sub-factors, being *risk understanding* and *individual responsibility and accountability*. A total of 25 items were derived in terms of the first factor to calculate the maturity scores. In the case of the second factor, seven items were derived for the first sub-factor and only two for the second sub-factor.

Reliability of questionnaire

A statistical procedure was used to determine how well the risk culture questionnaire worked for the specific sample used in this study. The standardised Cronbach's alpha coefficient of 0.96 confirmed the reliability of the 34 survey items.

Risk culture responses

Maturity scores were obtained by calculating the mean of items per risk culture factor, as reflected in Table 1. The scores obtained indicate a relatively mature risk culture at all levels of management.

Table 1: Factor Maturity Scores of all participants and by management level

| Organisational level | n | Factor 1: Risk integration | Sub-factor 2.1: Risk understanding | Sub-factor 2.2: Individual responsibility and accountability |
|----------------------|-----|----------------------------|------------------------------------|--|
| All participants | 734 | 3.8 | 4.0 | 4.5 |
| Executive management | 16 | 3.8 | 4.3 | 4.8 |
| Senior management | 148 | 3.7 | 4.2 | 4.6 |
| Middle management | 750 | 3.8 | 3.9 | 4.5 |

The factor scores with respect to factor 1 (*risk integration*) indicate that risk management was viewed as a high integrated enabler of achieving the organisation's objectives by respondents at all the managerial levels. Similarly, the scores for sub-factor 2.1 suggest a high level of understanding of risk in the organisation. Finally, the high scores for sub-factor 2.2 are indicative of all three management levels being completely responsible and accountable for risks connected to their roles.

To answer the first research question regarding the difference between the risk cultures of the three management levels, the normality of the data was tested. The histograms for the individual items indicated they are mostly skewed to the right. Under normality a bell-shaped distribution is expected. Since the parametric assumption of normality did not hold, a non-parametric test was used to test for differences in distribution between the three groups of management.

5. DISCUSSION

The Wilcoxon (rank-sums) scores were used to obtain the Kruskal-Wallis test results. The null hypothesis (H_0) was that the distributions for the three management levels were equal. If $p < \alpha = 0.05$, the H_0 should be rejected because there were significant differences between the three independent management levels. The detail provided in Appendix A indicates that significant differences were noticed in 11 individual survey items across the factors. Closer inspection of the differences in the mean Wilcoxon scores of the risk culture factors reveals the following observations and interpretations.

Risk integration

Executive management scored higher than the other two management levels in respect of the following individual items of factor 1 *risk integration*:

- They can challenge risk stakeholders on risk issues in the organisation; and
- They agree with the organisation's risk management framework more than their peers do in the other two management ranks.

Middle management scored higher in the following three individual items of factor 1 *risk integration* than the other management levels:

- This level believed that the organisation clearly links risks and opportunities when defining its objectives;
- They believed that the organisation responds quickly to new risk information; and
- They believed that the organisation actively learns from risk events to improve the management of related risks.

Risk understanding

Executive management scored consistently higher than the other two management levels in almost all the items of sub-factor 2.1 *risk understanding*. This result was expected, as top management has positional power and is involved in approving the risk management framework and standards of the organisation. It is clear from the survey that this management level understood:

- The link between the organisation's risk and strategic objectives;
- The organisation's risk management framework, processes and practices;
- What kind of information their colleagues require to make risk-related decisions; and
- How well the organisation is performing in reaching its objectives.

Senior management scored higher than the other two management levels on the following items:

- Understanding how to manage risk as part of their role in their position; and
- Understanding the contribution that risk management, as a practice, makes in reaching organisational objectives.

Of the three management levels, middle management recorded the lowest mean Wilcoxon scores on all six items of sub-factor 2.1 *risk understanding*. It can therefore be concluded that both executive and senior management have better understanding of organisational risks, which is an indication that these management levels are setting the appropriate tone at the top.

Individual responsibility and accountability

There were no significant differences in the two items for the management levels in the sub-factor 2.2 *individual responsibility and accountability*. This indicates that management across all levels has a similar understanding of their individual roles regarding the management of organisational risks. It is important to note that sub-factor 2.2 also had the highest risk culture maturity score of all the factors.

Additional influences on risk culture

A trio of noteworthy findings emerged from further analysis of the mean Wilcoxon scores of all the items within the factors. The analysis revealed that the risk culture maturity improved with the age of the participants across all the factors. The improvement was more pronounced in terms of *risk understanding* (sub-factor 2.1). This finding was consistent with the seniority of managers. The average age of senior and executive management was higher than that of the middle managers in the organisation. Similar inferences were made based on the participants' declared years of experience, which were clustered into three groups: up to 5 years, between 5 and 10 years, and more than 10 years. The mean Wilcoxon scores were consistently higher across all the factors as the years of experience rose. The risk culture seemed to be significantly higher when participants had more than 10 years of work experience. The third key finding was that the participants' length of employment by the company could have an influence on the risk culture maturity. Judged by the increasing mean Wilcoxon scores for all the factors, it can be deduced that improved knowledge of the collective management of organisational risks and risk management methodologies, which comes with more years of service, would have a positive influence on the risk culture of an organisation. Refer to Appendix B for more detailed analysis.

Risk ownership

Respondents were surveyed for their views about who owns the risks in the organisation. The choices offered were the risk managers, strategic managers, operational managers, or the auditors. The respondents could choose more than one role player. Only three percent of the respondents did not participate in this survey. Analysis of the responses to this question revealed a perception of co-ownership of risk by strategic management, operational management, and risk management (in 28% of the responses). All role players (as a response) were selected by 14% of respondents, with 10% indicating that both the risk and operational managers owned the organisational risks. However, some 12% of the respondents indicated that the risk management function was solely responsible for the management of risks, which is contrary to the standards reflected in industry codes such as ISO 31000. This gap in understanding could be addressed by training, communication and providing role clarity.

6. CONCLUSION

For purposes of this study, corporate risk culture is seen as the way in which groups of people use risk management principles when making decisions about future uncertain events that could have a negative impact on reaching the organisation's strategic objectives. The survey results of this study suggest that there was a significant difference in risk management understanding at a factor

level, even though understanding remained high throughout all levels. Significant differences between the three management levels in the organisation were detected for 11 items in the survey. This is consistent with the findings by Power et al. (2013) that risk cultures are unevenly distributed between different layers of management within organisations. Although this study provides a framework for measuring the factors of risk culture, the factor scores per factor were calculated as the average of the means of the individual items that made up the factor. This approach is generally acceptable for new questionnaires where the factor loadings have not been confirmed (DiStefano, Shu and Mindrila, 2009; Russell, 2002). In future studies, consideration should be given to assigning appropriate factor loadings.

Judged against the criteria used in the survey, the aggregate results suggest that risk culture in the logistical company was mature, based on the maturity levels of UARM RCQ-2016. The present study uncovered further dynamics that might have an impact on the risk culture maturity of an organisation. These dynamics relate to the years of experience, years of service and the age of the participants. Maturity improved across all three aspects in terms of more years of experience and service, and with age. These results offer an opportunity for further research to support or investigate them further, especially in a wider range of organisations, and those with different demographic profiles to that of the organisation studied. Although the sample size is large enough to make substantive inferences, the study has limitations. A limitation that is unavoidable in this type of study is that biases are inherent when using subjective beliefs of the participants in a survey. Another limitation is that only one organisation was studied. Typically, it can be expected that executive management teams are inclined to be overconfident because they have the greatest access to critical organisational information.

Individual differences among the management teams could be closed by how the accountability and responsibility for the management of risks are formally assigned in the organisation. The survey results indicate that middle management's understanding of risk was not at the same as that at the other two, more senior management levels. More emphasis could therefore be placed on vertical and horizontal communication of key strategic and operational risks. Training on risk management frameworks and processes could be shared more widely in the organisation to improve risk understanding and risk integration in decision-making at all levels.

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APPENDIX A: ITEM LEVEL ANALYSIS – KRUSKAL-WALLIS TEST FOR MANAGEMENT LEVEL DIFFERENCES

The information in Appendix A reflects only the statistically significant differences between the risk culture factors.

| Management level | n | Mean Wilcoxon score | Chi-square test statistic | p-value |
|--|-----|---------------------|---------------------------|---------|
| Factor1: Risk integration | | | | |
| <i>6. I am able to challenge risk stakeholders on risk issues in the organisation.</i> | | | | |
| Executive management | 16 | 482.81 | 21.77 | 0.00 |
| Senior management | 147 | 413.81 | | |
| Middle management | 554 | 340.88 | | |
| <i>9. I agree with the organisation's risk management framework.</i> | | | | |
| Executive management | 16 | 413.75 | 6.60 | 0.04 |
| Senior management | 146 | 382.83 | | |
| Middle management | 543 | 343.19 | | |
| <i>13. The organisation clearly links risks and opportunities when defining its objectives.</i> | | | | |
| Executive management | 16 | 310.00 | 6.83 | 0.,03 |
| Senior management | 148 | 330.84 | | |
| Middle management | 564 | 374.88 | | |
| <i>36. The organisation responds quickly to new risk information.</i> | | | | |
| Executive management | 16 | 352.47 | 9.23 | 0.01 |
| Senior management | 147 | 317.54 | | |
| Middle management | 559 | 373.32 | | |
| <i>39. The organisation actively learns from risk events to improve the management of related risks.</i> | | | | |
| Executive management | 16 | 325.47 | 6.29 | 0.04 |
| Senior management | 148 | 330.94 | | |
| Middle management | 565 | 375.04 | | |
| Sub-factor 2.1: Risk understanding | | | | |
| <i>7. I understand the link between the organisation's risks and objectives.</i> | | | | |
| Executive management | 16 | 439.25 | 15.02 | 0.00 |
| Senior management | 148 | 418.23 | | |
| Middle management | 570 | 352.31 | | |
| <i>8. I understand the organisation's risk management framework (processes, practices, etc.)</i> | | | | |
| Executive management | 16 | 536.00 | 29.68 | 0.00 |
| Senior management | 148 | 426.98 | | |
| Middle management | 570 | 347.33 | | |
| <i>11. I understand how to manage risk as part of my work role.</i> | | | | |
| Executive management | 16 | 408.94 | 10.47 | 0.01 |

| Management level | n | Mean Wilcoxon score | Chi-square test statistic | p-value |
|--|-----|---------------------|---------------------------|---------|
| Senior management | 148 | 411.72 | | |
| Middle management | 570 | 354.86 | | |
| <i>32. I understand what kind of information my colleagues need to be able to make risk-related decisions.</i> | | | | |
| Executive management | 16 | 416.56 | 8.21 | 0.02 |
| Senior management | 148 | 402.80 | | |
| Middle management | 567 | 354.97 | | |
| <i>34. I know how well the organisation is performing in meeting our objectives.</i> | | | | |
| Executive management | 16 | 468.69 | 24.31 | 0.00 |
| Senior management | 148 | 430.15 | | |
| Middle management | 569 | 347.72 | | |
| <i>35. I understand the contribution that risk management as a practice makes in reaching the organisation's objectives.</i> | | | | |
| Executive management | 16 | 389.22 | 11.13 | 0.00 |
| Senior management | 148 | 415.34 | | |
| Middle management | 570 | 354.47 | | |

APPENDIX B: OTHER INFLUENCES ON RISK CULTURE

An analysis was performed on three demographical features to investigate whether they had an influence on the survey results.

| Age Group | n | Wilcoxon Mean score | Chi-square test statistic | p-value |
|---|-----|---------------------|---------------------------|---------|
| Factor 1: Risk integration | | | | |
| < 30 | 35 | 304.78 | 13.11 | 0.11 |
| ≥ 30 < 40 | 215 | 339.65 | | |
| ≥ 40 < 50 | 258 | 367.38 | | |
| ≥ 50 | 216 | 393.88 | | |
| Sub-factor 2.1: Risk understanding | | | | |
| < 30 | 36 | 258.69 | 17.19 | 0.00 |
| ≥ 30 < 40 | 217 | 357.37 | | |
| ≥ 40 < 50 | 260 | 367.99 | | |
| ≥ 50 | 219 | 392.74 | | |
| Sub-factor 2.2: Individual responsibility and accountability | | | | |
| < 30 | 34 | 280.71 | 15.54 | 0.01 |
| ≥ 30 < 40 | 217 | 339.02 | | |
| ≥ 40 < 50 | 256 | 374.50 | | |
| ≥ 50 | 217 | 382.18 | | |
| All factors | | | | |
| < 30 | 35 | 293.87 | 14.10 | 0.08 |
| ≥ 30 < 40 | 215 | 343.26 | | |
| ≥ 40 < 50 | 259 | 367.92 | | |
| ≥ 50 | 217 | 392.96 | | |

| Years of Experience | n | Mean Wilcoxon score | Chi-square test statistic | p-value |
|---|-----|---------------------|---------------------------|---------|
| Factor 1: Risk integration | | | | |
| 3 < and ≥ 5 years | 251 | 342.48 | 10.37 | 0.14 |
| 5 < and ≥ 10 years | 166 | 354.08 | | |
| > 10 years | 306 | 383.53 | | |
| Sub-factor 2.1: Risk understanding | | | | |
| 3 < and ≥ 5 years | 254 | 341.81 | 12.36 | 0.03 |
| 5 < and ≥ 10 years | 173 | 357.50 | | |
| > 10 years | 306 | 392.86 | | |
| Sub-factor 2.2: Individual responsibility and accountability | | | | |
| 3 < and ≥ 5 years | 250 | 333.37 | 14.36 | 0.01 |
| 5 < and ≥ 10 years | 171 | 360.98 | | |
| > 10 years | 302 | 385.72 | | |

| All factors | | | | |
|---|----------|----------------------------|----------------------------------|----------------|
| 3 < and ≥ 5 years | 251 | 341.81 | 11.02 | 0.11 |
| 5 < and ≥ 10 years | 168 | 355.19 | | |
| > 10 years | 306 | 385.58 | | |
| Length of Service | n | Mean Wilcoxon score | Chi-square test statistic | p-value |
| Factor 1: Risk integration | | | | |
| 3 < and ≥ 5 years | 196 | 331.80 | 12.48 | 0.08 |
| 5 < and ≥ 10 years | 137 | 349.91 | | |
| > 10 years | 382 | 381.19 | | |
| Sub-factor 2.1: Risk understanding | | | | |
| 3 < and ≥ 5 years | 199 | 347.07 | 9.42 | 0.26 |
| 5 < and ≥ 10 years | 139 | 358.06 | | |
| > 10 years | 395 | 379.89 | | |
| Sub-factor 2.2: Individual responsibility and accountability | | | | |
| 3 < and ≥ 5 years | 197 | 321.31 | 18.05 | 0.00 |
| 5 < and ≥ 10 years | 138 | 355.04 | | |
| > 10 years | 389 | 384.59 | | |
| All factors | | | | |
| 3 < and ≥ 5 years | 196 | 334.32 | 12.18 | 0.11 |
| 5 < and ≥ 10 years | 137 | 351.89 | | |
| > 10 years | 385 | 381.12 | | |

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STARING DOWN THE LION: UNCERTAINTY AVOIDANCE AND OPERATIONAL RISK CULTURE IN A TOURISM ORGANISATION

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ABSTRACT

The academic literature is not clear about how uncertainty influences operational risk decision-making. This study, therefore, investigated operational risk-based decision-making in the face of uncertainty in a large African safari tourism organisation by exploring individual and perceived team member approaches to uncertainty. Convenience sampling was used to identify 15 managers across three African countries in three domains of work: safari camp; regional office; and head office. Semi-structured interviews were conducted in which vignettes were incorporated, to which participants responded with their own reactions and decisions to the situations described, as well as with ways they thought other managers would react to these specific operational contexts. The data were transcribed and qualitatively analysed through thematic coding processes. The findings indicated that approaches to uncertainty were influenced by factors including situational context, the availability and communication of information, the level of operational experience, and participants' roles. Contextual factors alongside diverse individual emotional and cognitive influences were shown to require prudent consideration by safari tourism operators in understanding employee behavioural reactions to uncertain situations. A preliminary model drawn from the findings suggests that, in practice, decision-making in the face of uncertainty is more complex than existing theoretical studies propose. Specifically, the diverse responses anticipated by staff in response to the vignettes could guide safari tourism management towards better handling of risk under uncertainty in remote locations.

Keywords: uncertainty, operational risk, geographically dispersed decision-making, safari tourism, risk culture.

1. INTRODUCTION

How people approach and respond to uncertain situations serves as a representation of the integration of risk in decision-making, which by association is likely to influence the risk culture of an organisation (Dabić, Tipurić, & Podrug, 2015). To explore decision-making under uncertainty, specifically in terms of operational risk, this study focused on senior management groups in a geographically dispersed tourism organisation in Africa.

Safari tourism characteristically involves unpredictable situations specific to the isolated wilderness environments in which it operates. The organisation selected for this study had been operating in the safari tourism industry for over 30 years. The company, with a single head office, operated in several southern and east African countries each of which had its own regional office to oversee the camp operations. For this study, the following locations were selected: two camps in the Kafue National Park in Zambia, a regional office in Victoria Falls, Zimbabwe, and the head office in Johannesburg, South Africa. The two camps were in a remote wilderness location, accessible only by light aircraft. The camps were not fenced, and wildlife roamed freely. Each camp had a small management team, wildlife guides and general staff. Regional offices were responsible for managing bookings, procurement, and local strategic business decisions, while the camps were solely focused on providing a guest experience. Strategic management, bookings, group policies and decisions were made at head office and filtered to the regions. The structure of the organisation was complex in that it needed to maintain a distinct identity, culture and corporate values across geographically distributed teams, where each team had different roles, positions, societal and cultural backgrounds.

Senior managers were selected as participants in the study and were identified in three domains of work: a safari camp, a regional office, and head office. These three domains were located in three sub-Saharan countries namely, South Africa, Zimbabwe and Zambia. This study investigated how participants believed they themselves would respond to operational risks, and how they thought their colleagues would react to the same situation across the three work domains. Previous research suggests that effective risk decision-making is further challenged in organisations whose nature is multi-contextual, as, for example, those that are geographically dispersed, or where roles are spread across departments (Knoben & Oerlemans, 2006; O'Leary & Cummings, 2007).

The study was guided by the following research questions:

- What key uncertainty-related factors influenced operational-risk-related decisions across different work domains?
- How did senior managers perceive their own responses to operational risks?
- How did senior managers think that other senior managers in the organisation would react to the same situations?
- Did the senior managers share the same perceptions as their colleagues of operational risks?

A common phrase used in the safari industry, '*whatever you do, don't run*', is applied as a recipe for survival when guiding in the wilderness (Allison, 2007). In nature, when potential prey does not run but, instead, turns to face a predator (such as a lion), the predator becomes uncertain as to where the power lies and is likely to back off from the hunt. Standing your ground provides a far greater chance of survival than running away. The phrase 'staring down the lion' may have literal relevance to the safari industry but could also be applied as a metaphor to other organisational scenarios, in which the 'lion' represents an intimidating executive or an ethical decision dilemma.

2. LITERATURE REVIEW

A snapshot of safari tourism organisations

Safari tourism organisations often start as small private companies that are driven largely by relationships and, at times, risk-taking attitudes to gain success. For example, as described by a founder of one of the largest and most successful safari tourism operators in Africa: “In 1983, we took a Landrover from South Africa, loaded it with supplies, and trekked deep into the Okavango Delta in Botswana, not a well-known tourism destination at the time, to establish camps and guide tourists in pristine wilderness areas. To create a business, we took considerable risk both at a personal and business level, to bring tourists into an unfamiliar wildlife area in another country” (Friedman, 2017). There are many academic studies related to tourist perceptions, tourist approaches to uncertainty, tourist destination risk, and what affects the behaviour of tourists on holiday (Litvin, Crotts, & Hefner, 2004; Money & Crotts, 2003). Yet limited literature could be found about individuals working in these environments. Health and safety has been at the forefront of travellers’ minds and a tourism business is directly affected if guest experiences are consistently poor or perceived to be unsafe (Oh, Fiore, & Jeoung, 2007).

Many large safari tourism organisations in Africa operate across several countries, aiming to provide guests with authentic safari experiences. The literature describes several difficulties associated with operating in this context, for instance, the fact that geographical distance brings with it differences in regional and national cultures, time zones, and work contexts, all of which may challenge the shared interpretations of operational uncertainty (O’Leary & Cummings, 2007; Polzer, Crisp, Jarvenpaa, & Kim, 2006). For organisational success in these dispersed contexts, the literature suggests local knowledge, skills, resources and leadership are crucial for driving trust, integrated organisational culture and commitment outcomes across distributed teams (Joshi, Lazarova, & Liao, 2009; Sole & Edmondson, 2002).

Risk perception and decision-making under uncertainty

Research on risk perception in organisations has been linked to the behaviours, cultures and actions of employees and stakeholders (Sjöberg, 2000; Slovic, 2000). According to Bozeman and Kingsley (1998), if people believe that their leaders take risks, especially senior and executive managers, risk-taking may be perceived as valid and less likely to meet with disapproval. Academics who have explored the implementation and performance of risk management in large safari organisations have confirmed that it is likely to be a complex challenge in that not only are business operations separated geographically, but the perception of risk-taking propensity are likely to differ among groups (Shaw, Saayman, & Saayman, 2011). This spatial, social and psychological distance may well influence decision-making regarding risk and uncertainty (Liu & Onculer, 2017; Mukherjee, 2010).

Two dichotomous notions appear in the literature regarding perception of self in relation to risks. On the one hand, increased proximity and frequency of exposure to a stimulus (either negative or positive) will result in familiarity and complacency in the individual’s perception of that stimulus effect (Janisse, 1970; Lee, 2001). Perceived threats to oneself or others are also known to increase

anxiety, and cause burn-out or other physiological responses associated with the ‘fight or flight’ reaction (APA, 2013; D’Souza & Renner, 2014). An example of this theory in the context of the present study would be that if safari guides have been working in wildlife areas for a number of years, it is likely that they are comfortable and familiar with the risks associated with the job. On the other hand, as explained by Lee (2001), psychological research has also described the opposite effect in someone for whom the situation is new and strange. For example, a guest from Europe is on a guided walk in the game reserve when they see an elephant herd. The guest, unfamiliar with the environment, is terrified. He fails to hear the instructions and information provided by the guide and runs off blindly into the bush (Allison, 2007).

To explore decision-making responses toward operational risks across work domains, the factor of risk perception was applied to both the participant and the way that participant imagined the responses of colleagues. When the self-concept of team members in an organisation shifts from the “I” to the “we,” they are more likely to act in ways that are normal for their shared group identity and thereby contribute to the team’s performance (Hinds & Mortensen, 2005). For the purpose of this study, operational risk has been defined as ‘the uncertainty of loss associated with operational activities that could impact the organisation’s objectives’, based on similar definitions of risk (Purdy, 2010; Young, 2015). Scholars have related the following constructs to operational risk: uncertainty, uncertainty tolerance, uncertainty avoidance, ambiguity tolerance, uncertainty orientation, and uncertainty acceptance (Hillen, Gutheil, Strout, Smets, & Han, 2017; Hofstede, Hofstede, & Minkov, 2010). The present study focuses in particular on uncertainty avoidance, which is defined as the degree to which members of a culture feel threatened by uncertain or unknown situations (Hofstede et al., 2010).

3. METHODOLOGY

An exploratory approach was applied, using vignettes in face-to-face interview sessions with participants. The vignette (or short story) technique elicits perceptions, opinions, beliefs and attitudes from responses (Hughes & Huby, 2012). Four vignettes were developed based on real-life safari tourism scenarios and all four were presented to each participant. The participants were first asked to imagine the scenario described and then to answer focused questions that related to it. Following Hofstede and his colleagues’ extensive research into organisational culture and application of the uncertainty avoidance construct, three questions, pertaining to stress, rule orientation and career longevity, were used as an entry point in the construction of the vignettes in this study (Geert Hofstede, 2013). The vignettes were further bolstered by referencing existing literature on risk perception, psychological stressors, and decision-making challenges that face geographically distributed teams. This approach provided a novel platform for uncovering new insights of the uncertainty construct in relation to a diverse group of managers in a geographically dispersed company.

Participants and procedure

The participants in this study were 15 senior managers (n = 15) consisting of 11 males and 4 females from the organisation. The average age ranged between 30 and 50 years. Five participants

in each work domain were selected by means of convenience sampling among senior staff in their work domain. Five participants were randomly selected from the camp (CP) (n = 5); the regional office (RP) (n = 5) and Head Office (HOP) (n = 5).

Permission was obtained from the safari organisation to interview staff members and ethical clearance was obtained from the North-West University's ethics committee. Private meetings were set up with staff in their work location offices between May and June 2018. Each participant was taken through an informed consent process and agreed to voice-recordings being made of their interviews. All participants were assured that full confidentiality and anonymity would be maintained.

Instrument

Four vignettes were designed based on plausible operational risks that participants were likely to have experienced in the context of the industry. The four vignettes are summarised as follows:

- (1) Encounter with a dangerous animal: as wild animals tend to be unpredictable, this scenario targets the uncertainty of being personally exposed to an imminently life-threatening situation;
- (2) An ethical dilemma: human interactions play a vital role in organisational decision-making activities. Tasks may be derailed when individuals are confronted with ethical dilemmas such as bending the rules to achieve a desired outcome;
- (3) Infectious disease outbreak: yellow fever and haemorrhagic fevers such as Ebola often impact the tourism industry in Africa, which leads to loss of bookings;
- (4) Career longevity: low tolerance of uncertainty in a workplace that has a high degree of unpredictability is likely to influence how long staff members are willing to stay.

The vignettes and questions were designed to test the managers' perceptions; actual behaviour in the context of the proposed scenarios was not observed. (See Appendix A for the vignettes, the complete list of questions asked, and associated references.)

Analysis

The interview data were qualitatively analysed using a phenomenological and inductive coding method, with the aim of uncovering themes related to decisions expected to be made in the face of operational uncertainties. The interview data were transcribed, and a thematic coding process was followed (Creswell & Creswell, 2017). Responses to each question in each vignette were collated and organised in a spreadsheet for comparative purposes, and specific codes were subjectively identified. The codes were considered in terms of whether they could potentially contribute to, or reference, elements of approaches to uncertainty. The coding process and codes were validated through peer reviews. The master code list amounted to 148 codes. A frequency of mention (FOM) process was applied, and the codes were further reduced by combining or linking codes that were synonymous in the context, e.g. role, position, and level. Codes found to have little or no bearing on uncertainty were discarded. In the end, only the top eight codes (summarized in Table 1 with a

description, number of mentions and one or more examples for each) were used for the discussion of the results.

4. RESULTS AND DISCUSSION

The results were obtained from the transcribed and coded interview data. The discussions refer to each vignette and is linked to the coded data as well as to the initial research questions. A preliminary model is derived from the accumulated data.

Coding results

Table 1 summarises the key codes identified from the master code book.

Table 8: Summary of key codes, descriptions, frequency of mention and examples.

| Code | Description | Frequency of mention | Example |
|----------------------|---|----------------------|---|
| Situational context | The operational context in which the risk is found such as the physical environment | 278 | “It’s difficult, I mean it depends what the situation is” (RP2); “Different countries require different sets of reactions. So, what works in Botswana might not work in Namibia” (RP4) |
| Personal context | The individual’s life context, such as the stage in the individual’s life ambitions or life goals | 102 | “I know there’s a time that I want to be with my family and that will be possibly what will make me leave the remote area – to be with my family” (CP3) |
| Experience related | The level of individual experience or exposure to certain risks or situations | 153 | “Guides are obviously very aware of their surroundings because it’s in their nature and it’s their job” (HOP4); “I think it’s exposure, the lifestyle that they’ve had living in a more remote area or the big horrible city” (HOP5) |
| Information related | The type of information received, assimilated, assessed and communicated | 189 | “...get the facts right. To understand exactly what’s going on” (HOP5); “communicate and make sure that what the company policy decision or statement is...and we have to make sure the responses are uniform. Like from the top it should translate downward and it should be the same [across the group]” (RP4) |
| Role related | The position or role within the organisation and the level of autonomous decision-making that this role grants the individual | 89 | “Ya, I think my role is quite clear” (HOP3); “[I would do] nothing, it’s not really in my role. It’s an advisory role, I don’t have an active role in that, I suspect” (HOP5) |
| Emotional response | The subjective, often uncontrollable emotional factors, such as anxiety, stress or fear, which are enabled by uncertainty | 139 | “There is always fear. Fear of the unknown” (CP1); “...sometimes it’s the instinct hey, it just kicks in and the adrenaline, you are not guaranteed but you might do the right thing!” (RP1) |
| Cognitive response | Heuristics or bias that influences decision-making whether consciously or unconsciously | 72 | “It’s probably critical thinking that’s the key thing and analysing the ability to sum up the situation very quickly and then decide what the right action is” (HOP5); “Have common-sense to deal with it [the situation] logically” (HOP3) |
| Behavioural response | The physical response towards or behaviour in a specific stimulus or situation | 45 | “I would go straight to the manager” (RP2); “My first reaction would be that I want to run, because fright and flight takes place” (HOP1) |

Vignette results

Results from each of the four vignettes are summarized in Table 2. The results indicate how participants believed they would respond to each scenario and how confident they were that their

colleagues would respond in a similar way to the same situation. How participants perceived that their responses and actions would differ to their colleagues has been labelled as follows: “small” (responses would be very similar), “medium” (responses would be partial similar) and “large” (responses would differ greatly or there is a high uncertainty in the response of others would be).

Vignette 1: Wild animal encounter

In this scenario participants were asked what they would do if they encountered a dangerous animal on foot; 10 of the participants believed that their behavioural response would have been correct, and they would have stood their ground (albeit some more fearfully than others). Guides and camp staff appeared most confident about what their reaction would be. A participant from the camp remarked that in his experience *“no matter how much we advise people to hold their ground in such situations. Not everyone manages to do that.... they [other staff] are not experienced, they are not trained, they are not exposed to animals like that”* (CP1). Confidence in how their colleagues would respond in the same situation was noticeably greater in comparison to the other scenarios, particularly from an experience and job role perspective. Most responses involved statements such as *“I think they would do the same as me”* (CP1); *“I think it depends on the person and I think it's exposure – some would be sensible (those in camps), others less sensible (staff from the city)”* (HOP5); or indicated that instinct would be the key driving response and therefore unpredictable – *“it's instinct...you are not guaranteed to know how you or others will react”* (RP1).

D'Souza and Renner (2014) suggest that uncertainty about one's own competence is often a driver of workplace anxiety and staff members are then conflicted by their inner experience of “not knowing” and the pressure to maintain the outward appearance of competence. One participant from the head office highlighted the risk brought on by ignorance and lack of experience: *“I think the biggest risk is when you don't know what you are going to do, because you have never been in that situation. And that's why guides walk guests to their rooms because they [guides] know what their default reaction is going to be because they have been in it. So, it's not an unknown”* (HOP4). Slovic (2000) suggests that although critical thinking is important in many decision-making circumstances, the short-cut to emotion as a quick response is easier when navigating complexity. There was no mention of personal factors coming into play in this scenario, which is unsurprising as the situation represents imminent danger so it is unlikely that people would be concerned in that moment about their job, domestic issues or family affairs.

Vignette 2: Ethical dilemma

Although most participants stated that they had been in similar situations as the one described in the vignette, they were not certain of the level of exposure that other senior managers had experienced. There was a strong perception that the industry or geographic context fosters this behaviour; for example, some participants stated that the political context, where corruption is rife, forces all businesses to step outside the lines from time to time. Regardless of ethical policies and procedures, some employees are unlikely to raise sensitive issues for fear of the consequences (loss of job or being isolated by peers) or from a sense of futility (Detert & Burris, 2016). As camp managers were largely responsible for camp-only operations, they may have seen the personal risk

of raising the issue as greater than simply ignoring it and hoping someone else would take the matter further. This scenario highlights the complexity of decision-making among employees across geographically dispersed contexts, in which senior functions may unintentionally create a blame culture, whereby peoples' decisions are frequently criticized, reducing the communication of important issues for fear of further criticism.

Table 9: Collated results of all four vignettes in line with key codes

| Code | Vignette description | Response summary | No. of participants agree | No. of participants disagree/no mention | Perceived response difference Self vs Other |
|---------------------|--------------------------------|---|---------------------------|---|---|
| Situational context | 1. Wild animal encounter | Knows the environment well | 13 | 2 | Small |
| | 2. Ethical dilemma | Feels that the industry fosters these situations | 9 | 6 | Medium |
| | 3. Infectious disease outbreak | Would be isolated to geographic areas | 10 | 5 | Small |
| | 4. Career longevity | It depends what work domain you stay in | 6 | 9 | Medium |
| Personal context | 1. Wild animal encounter | No relevance found | - | - | None |
| | 2. Ethical dilemma | Feels that it's a personal risk | 2 | 13 | Small |
| | 3. Infectious disease outbreak | Family could be affected; potential job loss | 2 | 13 | Small |
| | 4. Career longevity | Would want a long-term career in the industry | 12 | 3 | Small |
| Experience | 1. Wild animal encounter | Can relate to past experience/exposure | 10 | 5 | Medium |
| | 2. Ethical dilemma | Can relate to past experience/exposure | 12 | 4 | Small |
| | 3. Infectious disease outbreak | Can relate to past experience/exposure | 12 | 3 | Small |
| | 4. Career longevity | Has more than five years in the industry | 8 | 7 | Large |
| Information | 1. Wild animal encounter | Will seek to visibly confirm threat | 6 | 9 | Medium |
| | 2. Ethical dilemma | Will check the facts before responding | 5 | 10 | Medium |
| | 3. Infectious disease outbreak | Would seek official/trusted information | 9 | 6 | Medium |
| | 4. Career longevity | Would want ongoing motivational input from employer to stay | 3 | 12 | Small |
| Role | 1. Wild animal encounter | Has confidence in their ability to respond safely | 5 | 10 | Medium |
| | 2. Ethical dilemma | Feels they are able to address the issue | 8 | 7 | Large |
| | 3. Infectious disease outbreak | Would feel responsible to manage the situation | 10 | 5 | Medium |
| | 4. Career longevity | Is satisfied in their current role/position | 7 | 8 | Large |
| Emotional response | 1. Wild animal encounter | Will be fearful and/or panic | 13 | 2 | Small |
| | 2. Ethical dilemma | Would be uncomfortable and concerned | 12 | 3 | Small |
| | 3. Infectious disease outbreak | Would be upset or anxious | 10 | 5 | Medium |
| | 4. Career longevity | Pride or satisfaction | 12 | 3 | Small |

| Code | Vignette description | Response summary | No. of participants agree | No. of participants disagree/no mention | Perceived response difference Self vs Other |
|--------------------|--------------------------------|---|---------------------------|---|---|
| Cognitive response | 1. Wild animal encounter | Will apply cautious thinking | 7 | 8 | Large |
| | 2. Ethical dilemma | Would be objective | 9 | 6 | Medium |
| | 3. Infectious disease outbreak | Would assess the level of information | 6 | 9 | Medium |
| | 4. Career longevity | Believes peer influence and bias leads to job/role change | 4 | 11 | Small |
| Behaviour response | 1. Wild animal encounter | Will not run | 10 | 5 | Medium |
| | 2. Ethical dilemma | Would speak up and follow procedure | 9 | 6 | Medium |
| | 3. Infectious disease outbreak | Would talk/connect to guests, staff and family | 12 | 3 | Small |
| | 4. Career longevity | Is seeking change in role/career | 7 | 8 | Large |

Vignette 3: Infectious disease outbreak

Most participants had experienced or been exposed to a similar situation before, citing the repercussions from the Ebola outbreak in West Africa in 2014, even though they were all based in southern Africa and physically removed from the threat. The general perception of the participants was that these scenarios would be isolated to specific geographic areas, such as the Democratic Republic of Congo or Zambia, and that, in environments such as Namibia or Botswana, staff were unlikely to experience these threats. Participants based at the head office described more strategic and cognitive responses, that is, “*to approach the situation logically*” (HOP3) or to “*communicate the facts and be careful who the facts are communicated to*” (HOP5). More emotional responses came from participants based at the camp in Zambia: one said, “*I’d feel sad, worried*” (CP2), and another said, “*I’d alert my friends and family to stay safe*” (CP3). Head office participants recognised that the camp would be the most emotionally affected work domain, as “*it’s a more personal fear because it’s closer [to them]*” (HOP5), while a camp manager expected managers from other domains not to cope well, remarking, “*I think they will panic; think of closing the camp and going home to reduce risk*” (RP3).

Research has found that perceived proximity and subjective interpretation of distance have distinct effects on the organisational and team dynamics (O’Leary & Mortensen, 2010). Despite the emotional response difference, most regional and camp participants had had similar personal experiences in having contracted or been close to malaria, cholera or yellow fever outbreaks, which are commonly experienced in Zambia and Zimbabwe. Because of the past financial losses and threat to business associated with the Ebola crisis, many of the regional and head-office participants indicated that they would take a cautious approach by investigating the facts and being certain of the situation before deciding on a response, and most participants indicated that they would seek factual information first. At a personal level, camp managers felt that obtaining the right information would be their greatest priority for understanding the potential danger, mainly to enable them to alert their families and ensure their own well-being. While the regional and head office managers were more concerned about disseminating accurate information to their agents

and guests to alleviate any misplaced anxiety and mitigate any travel cancellations. A marked role-based confidence was revealed, in that all the senior managers felt that they would be a necessary point of communication for both internal and external purposes. Overall, in this scenario, participants had mixed sentiments as to how they felt they would respond and how they perceived that their colleagues would respond. This vignette emerged as the greatest ‘unknown’ scenario posed at the time that the study was conducted.

Vignette 4: Career longevity

Unlike the previous three vignettes, this final one did not propose a risk scenario to the participant but examined, instead, how people perceived their career longevity in an unpredictable and dispersed work environment. Most participants indicated that they would want a long-term career in the organisation or industry and felt considerable pride or satisfaction in working for the organisation. Most participants considered themselves “*privileged*” or “*lucky*” to be working in the industry and felt that they shared with their colleagues a passion for tourism, rather than wanting to continue in this work for financial reasons. Only one participant candidly mentioned finances, indicating the need to stay: “*till I'm retired, I don't know much else. Ah bond – I am owned by the bank!*” (HOP2). The role-based responses varied; for instance, camp managers remarked on the uncertainties associated with camp life, from weather changes to a delayed supply delivery, which would require quick problem solving to ensure that the daily schedule remained on track. A participant from head office, who works in financial management, commented that: “*My role can be quite repetitive. Change alleviates the boredom, but change isn't a function purely of our operation, it's the function of being a business that's changing*” (HOP5). In all the work domains, the participants had empathy for the familial needs and ambitions that their colleagues would probably have and that this could be a reason if they wanted or felt they needed to move to another industry or role. On this point, a camp manager commented that camp staff observed other senior managers elsewhere in the organisation as being more financially secure saying that they “*feel the people that are working out there are way better off than them that are here in camp*” (RP3).

Across each of the three operational domains, participants agreed that a career change would depend on their personal lives and ambitions, and on decisions such as whether they would want to start a family in a specific area or whether they would wish to become an executive. Family featured in different ways in participants’ explanations: “*I think there is a shelf-life for people in camp, people want to marry have kids and then people need to move on, if there's a position in the office or do what they need to do*” (RP5) and “*I would love to move to the office for the sake of my family and everything*” (CP3). According to Kern, Friedman, Martin, Reynolds, and Luong (2009), aside from the objective of income, careers and career longevity relate to social roles, self-concept, ambition, and well-being, and these issues were echoed in the present study. According to one participant, “*a lot of staff have been in for 15, 20, 25 years so the facts speak for themselves and if the dedication and loyalty is there then the path is clear*” (HOP3). Such comments suggest that, despite the uncertainties and disparities in risk responses among colleagues, the participants as a whole were eager to remain in the industry.

A preliminary uncertainty-response model

The preliminary uncertainty-response model (Figure 1) derives from the results of the present study.

The model draws a process flow from the point when a person is confronted by an operational

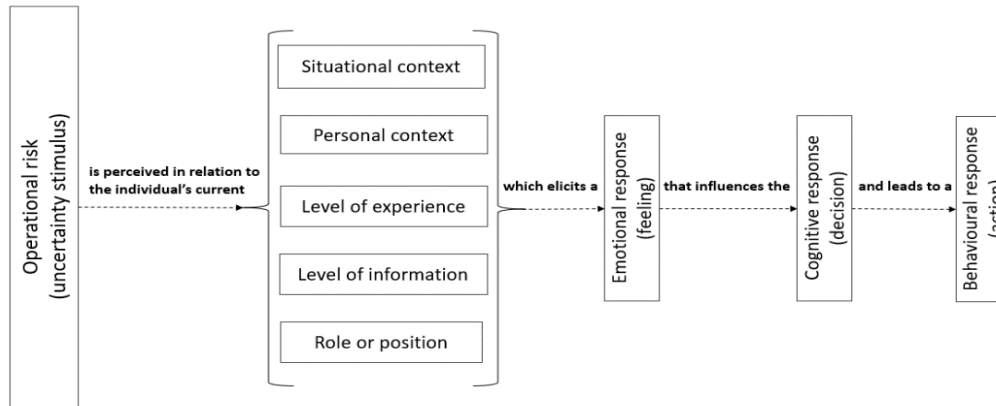


Figure 1: A preliminary uncertainty-response model, representing contextual factors and individual responses in the face of an operational risk.

risk, through the features that influence the individual’s assessment of the information, to the behavioural and cognitive responses, to the perceived risk. The model proposes that when uncertainty is confronted, the final decision is likely to be influenced by variables as they apply to each individual. Hillen et al. (2017) state that an ambiguous stimulus would be perceived and then appraised cognitively, emotionally and behaviourally, and that our perceptions to uncertainty could be moderated by individual, cultural and situational factors. In our study, even when individuals perceived their responses to be based to some extent on certainty, they did not always perceive clearly how their colleagues would respond to the same risk. The results of this study further highlight the importance of accessible information, level of experience and the job role of individuals in the organisation in making risk-related decisions in conditions of uncertainty. These factors are specifically relevant to distributed teams. Peters, Burraston, and Mertz (2004) propose that people appear to base their judgements of an activity not only on what they think about it but also how they feel about it, and that emotion can evoke a physiological reaction that affects how we think and behave. Understanding the perceptions of the individual is useful to elaborate a descriptive safety culture within an organisation, and in doing so organisations can build on the risk culture that is the ‘fabric’ making up effective risk management (Banks, 2012; Schulman, 2020).

The more people experience scenarios and associated emotions, the more quickly they can adjust their behaviour over time (Tyng, Amin, Saad, & Malik, 2017). Cole, Balcetis, and Dunning (2013, p. 39) argue that perceptions of the environment and the action responses within it are not independent but are “dynamically interwoven psychological processes”. Therefore, there is likely to be an iterative and complex internal process guiding emotional and cognitive processes involved in decision-making before final action is taken. This point is reflected in a remark from one of our head office participants: “It’s like you learn how to behave and it’s in degrees” (HOP2).

5. CONCLUSION

Perceived behaviours and decision-making by the participants from the safari tourism organisation, appeared to be influenced by factors such as situational context, operational experience, role level, and lack of information. For example, participants felt anxious in situations in which inadequate information was communicated or when they had had limited operational experience to the specific type of risk being considered. The rich interview data revealed that, on the whole, participants responded differently from one another about uncertainty. Individual responses to uncertainty appear to be largely contextual, influenced by key factors including past experiences and exposure. The preliminary uncertainty-response model proposed, as derived from this study, distinguishes between emotional, cognitive and behavioural responses. In the safari tourism industry, prudent consideration of both the contextual factors and the diverse responses described by senior members of staff could guide organisations as they keep improving their management of risk, enabling staff to rise to the challenge and ‘stare down their lions’ confidently.

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APPENDIX A: VIGNETTES

| Vignette | Questions | Factors Explored | Reference/Source |
|--|---|--|--|
| <p>Wildlife animal encounter <i>Imagine the following:</i> It's a lovely morning in camp and you are walking from the staff accommodation to the back-office. Your colleague was going to walk with you but forgot something in her room, and says she'll catch up with you. It's only a 5-minute walk through the bush. Out of the corner of your eye you spot a movement about 5 metres away from you, it looked like a swishing tail. You recall that the guides had mentioned that a pride of lions had been sighted around camp recently.</p> | <ol style="list-style-type: none"> 1. How do you feel about this situation? 2. What will you do? 3. What won't you do? 4. What would others in the organisation do if faced with the same situation? 5. What would the organisation expect you to do? 6. How often have you been exposed to similar situations like this? | <ul style="list-style-type: none"> • Evidence/absence of psychological stress • Risk perception (inwards and other) • Biases (i.e. confidence bias) • Rule orientation (tolerant vs avoidant) • Perceived proximity & frequency of exposure | <ul style="list-style-type: none"> • (APA, 2013) • (Geert Hofstede, 2013) • (Slovic, 2000) • (Houghton, Simon, Aquino, & Goldberg, 2000) |
| <p>Ethical dilemma <i>Imagine the following:</i> You are at the regional office for a meeting regarding a new project proposal. It is evident that there is still a lot of administrative and contractual matters that need to be resolved before the project would be able to commence. The manager leading the proposal seems very optimistic that it would commence in less than 1 month. After the meeting a colleague remarks to you that the manager had circumvented company policy and government regulations to fast-track the project. She asks you to keep this information confidential.</p> | <ol style="list-style-type: none"> 1. How do you feel about this situation? 2. What will you do? 3. What won't you do? 4. What would others in the organisation do if faced with the same situation? 5. What would the organisation expect you to do? 6. How often have you been exposed to similar situations like this? | <ul style="list-style-type: none"> • Evidence/absence of psychological stress • Risk perception (inwards and other) • Biases (i.e. confidence bias) • Rule orientation (tolerant vs avoidant) • Perceived proximity & frequency of exposure | <ul style="list-style-type: none"> • (APA, 2013) • (Geert Hofstede, 2013) • (Slovic, 2000) • (Houghton et al., 2000) |
| <p>Infectious disease outbreak <i>Imagine the following:</i> You are working at the head office, when you receive a company circular in your inbox. The news states that there has been an outbreak of an unknown illness in Zambia. International agents have been raising concerns of an outbreak of Ebola or the zika virus and questioning whether they should cancel their guests' holidays to Africa.</p> | <ol style="list-style-type: none"> 1. How do you feel about this situation? 2. What will you do? 3. What won't you do? 4. What would you expect the other managers in camp/regional offices will do? 5. What would the organisation expect you to do? 6. How often have you been exposed to similar situations like this? | <ul style="list-style-type: none"> • Evidence/absence of psychological stress • Risk perception (inwards and other) • Biases (i.e. confidence bias) • Rule orientation (tolerant vs avoidant) • Perceived proximity & frequency of exposure | <ul style="list-style-type: none"> • (APA, 2013) • (Geert Hofstede, 2013) • (Slovic, 2000) • (Houghton et al., 2000) |
| <p>Career longevity <i>Imagine the following:</i> A friend has come to visit you at work. He tells you that he thinks your work environment is so unique and how lucky he thinks you are. You discuss the wildlife areas, the travel, the activities, and the types of guests that visit the various regions. He remarks how refreshing it must be not really knowing what each day will bring in such a diverse organisation.</p> | <ol style="list-style-type: none"> 1. How do you feel about his remarks? 2. Do you think other people in the organisation would feel the same? 3. How long do you expect to remain in this industry? 4. How do you think others in the organisation feel about a career in this industry? | <ul style="list-style-type: none"> • Known unknowns (tolerance vs avoidant) • Longevity • Perceived awareness of others in geographically dispersed work domains • Perceived proximity & frequency of exposure | <ul style="list-style-type: none"> • (D'Souza & Renner, 2014) • (Geert Hofstede, 2013) • (Zolin, Hinds, Fruchter, & Levitt, 2004) |

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DISTORTED STAKEHOLDER ENGAGEMENT IN LOCAL ECONOMIC DEVELOPMENT: LESSONS FROM AN INTERNATIONAL DEVELOPMENT AGENCY AND A LOCAL MUNICIPALITY

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ABSTRACT

While the arguments for collaborative governance and community participation are sound and theoretically defensible, there seem to be little or no scholarly works to support this. In some cases, such stakeholder engagement is done as a tick box exercise. As a result, there is a major disconnect between what stakeholder engagement envisages and what actually happens mainly in rural South Africa. Utilising the mixed method research design, the study purposively selected participants from two government institutions (N=30), two private sector institutions (N=15) and five community-based institutions (N=60) that are involved in the Swiss I Lembe Local Economic Development Programme in KwaZulu-Natal. The study used questionnaires, in-depth interviews, focus groups and documentary analysis of the Swiss I Lembe Local Economic Development Programme stakeholders. This paper reveals that comprehensive stakeholder engagement is still far from being achieved in South African government matters. It further demonstrates a dysfunctional stakeholder engagement framework hindering the success of stakeholder inclusion and participation. Furthermore, the paper shows how stakeholder communication links are disjointed. The study observed a need to revise and redesign stakeholder engagement frameworks, communication links, structures for effective stakeholder engagement and to reinforce collaborative governance in South Africa. This study established that stakeholder engagement as a tool to encourage a developmental state as enshrined in the constitution is not adhered to and is applied incorrectly. This means that stakeholders, particularly the government, lack understanding of stakeholder engagement and collaborative governance, particularly at a local level. These observations should assist the local government in revisiting how they develop and engage stakeholders in their Integrated Development Plans and how they develop LED strategies that are inclusive through proper stakeholder involvement.

Keywords: Stakeholder engagement, local economy, involvement, community participation, collaboration,

1. INTRODUCTION

Drawing from the all-encompassing theoretical arguments of the Ladder of Participation; the Republic of South Africa makes this a prerequisite for all spheres of government. Particularly, *Section 152 of the Constitution* provides guidelines and encourages Local Municipalities (LM) to promote community-based and economic advancement, while *Section 153a* encourages and compels LM to be developmentally orientated, to focus on the fundamental needs of the locality, and to advocate for community-based economic advancement in their area of jurisdiction. This can further be found in the *Municipal Systems Act (MSA) No. 32 of 2000* where stakeholder engagement is underscored and in many other Acts. Contemporary studies suggest that there is an intertwined relationship between policy implementation and stakeholder engagement. This can be found in the work of Kamara (2017:99) who argues that Local Economic Development (LED) policy often refers to actions that originate at a grass-roots level, usually through collaboration between stakeholders or actors to confront socio-economic challenges and to respond to presented economic opportunities. Likewise, and more importantly, Koma (2013:133) investigates the implementation of LED policy in the advancing economies. The author finds that the involvement of government; non-government members, civil society, labour organisations; business and the community, is fundamental to the advancement of long-term LED policy strategies and plans as it provides a critical theoretical perspective from which to examine the role of stakeholder engagement in the LED policy cycle and the growing concern regarding the failures of LED policy, particularly in developing countries. Similarly, an empirical study by Mago, Hofisi, & Mbeba (2013) found that the failure of LED policy is the result of lack of experience of Local Government (LG) in relation to promoting LED. The authors argue that the exclusion of non-government stakeholders in LED policy is another factor causing such failures as no collaborations or partnerships are formed.

Although there is large corpus of literature on stakeholder engagement in policy implementation in general as well as in LED, there is a dearth of empirical studies focusing the perceptions of stakeholders. Besides, being largely descriptive and theoretical, many studies fail to interrogate the views of the people involved in stakeholder engagement that involve international development agencies in LED projects. As a consequence, our understanding of the effectiveness of such engagements is informed by anecdotal evidence and conjecture. This problem hampers efforts to improve stakeholder engagements projects and, by extension, the LED projects themselves.

Given this background, this paper explores the dynamics of stakeholder engagement in order to understand both its undesirable effects and its effectiveness in the Swiss ILembe Local Economic Development Programme (SILEDP) using Arstein's seminal ladder of public participation. Following this introduction, the next section examines the body of knowledge on stakeholder engagement and policy implementation in order to understand the manner in which it has been applied in various contexts across the globe. Thereafter, the third section outlines Arstein's (1969) Ladder of Participation as a theoretical underpinning to this study. The fourth section describes the methods employed to gather data, while the fifth and sixth sections present and analyse the

data utilising the theoretical framework and existing body of knowledge before drawing conclusions in the last section.

2. LED POLICY IMPLEMENTATION AND STAKEHOLDER ENGAGEMENT

One of the greatest challenges of LED policy is the implementation phase. Evidence suggests that the implementation phase is the most important factor in the LED policy cycle. In general terms, without being specific to any field of study, policy implementation, as explained by Wilson & Epelle (2018), when examining the institutions and actors involved in the state's policy process, they claim that, besides the adopted policy being executed, policy implementation remains as the government's statement of intention, pronouncement or prescription. Therefore, in the authors' view, policy implementation is the process of transferring policy directives into action goals, objectives into reality, and prescriptions into anticipated results. They further simplified their thinking by indicating that policy implementation is the connection between a developed policy and tangible or concrete results and suggest that there should be a conversion of a developed policy into tangible reality and then into applying it. They argue that the policy implementation phase is the most challenging stage in the policy process which is created by the involvement of actors who may be the enforcers of the legislation, policy or programme and those that are directly or indirectly affected by the policy in a positive or negative manner.

As such, LED policy-implementation is generating a considerable interest in terms of developing the local economy by stakeholders acting in a collective and collaborative manner. A recent study by Larnyoh (2019) gives an overview assessment of the National Policy on LED implementation in Ghana. The authors argue that in general, policies are instruments employed to achieve societal goals and to distribute resources. In the authors' view, the wider objective of any given LED policy is to expedite economic growth, generate income and create employment in order to enhance the community livelihoods and somehow to reduce poverty. However, the authors maintain that LED policies, alone cannot yield the desired outcomes unless they are correctly implemented. Furthermore, the author found that in Ghana, various proper LED policies were formulated, but never implemented. Lastly, the authors argue that this implementation can only be realised when the objectives are converted into action at a national level of government by actively involving the local stakeholders and by cultivating the role of LG in co-ordinating, preparing and implementing LED policy. This is corroborated by Hupe & Hill (2016) who were able to put these issues into vivid relief when they asserted that policy implementation includes the institutional methods, structures, commitments of financial resources, appointment of personnel and external agencies, (where the need arises), the community-based economic and political climate, the groups targeted by the policy etc. They found that the mentioned variables, in most cases, are not constantly available in reasonable quantities or at the appropriate times. Nor are they easily-manipulated to be aligned with the objectives of the policy. As a result, in most cases, the policy implementation phase collapses. Policy implementation and process-stress eventually determine the scale between action and policy but the implementation-policy formulation continues while there is an interaction between the different phases, as well as between the functions played by different actors or networks. This is consistent with the work of Lecy, Mergel, & Schmitz (2014), who argue that

policy implementation can be achieved successfully through networks which function as a co-ordinated mechanism for delivering public services that are dissimilar from the categorised organisations, such as a sole state agency, or an enterprise. They elaborate by stating that these networks usually provide service delivery. Moreover, Lecy et al., (2014) indicate that scholars have focused primarily on the efficacy and efficiency of policies that are implemented or executed through networks, and the manner that this is implemented affects the outcome.

Notwithstanding the highlighted difficulties and failures of LED policy implementation, recent scholarly work has revealed some success in this regard, more particularly in the developing countries. Several researchers have responded positively when investigating LED policy implementation in the contemporary era. For instance, Del Carmen Pardo, Laguna, & Cejudo (2019) examine LED policy-implementation advancements in developing countries, as is the case in Mexico. The authors argue that in the modern era, LED policy implementation is undertaken in a governance setting, where government is been observed to be transforming into a governance body. In their view, this entails that a broader range of stakeholders or actors have been seen to be participating in the policy-implementation. They also maintain that the recorded successes of LED policy-implementation are the result of permitting such processes to occur, where the process of implementing the policy is no longer regarded as a task that can only be executed in a bottom-up or top- down fashion. Lastly, these authors suggests that, in order to enhance policy-implementation, developing countries like Mexico have gone a step further and taken into consideration how LED policies can be developed effectively by involving and connecting different stakeholders horizontally and vertically in a collaboration and engagement process. Likewise, another essential point is made by Ansell, Sørensen & Torfing (2017) in their study, where they present new perspectives on policy execution problems. They suggest that collaborative policy development and policy implementation that is adaptive will assist policy formulators to enhance policy-implementation. They claim that the New Public Management (NPM) aim is to resolve policy-implementation challenges. However, in their view; the NPM invokes the main-logic that strengthens the separation among policy development and policy-implementation. Moreover, their main argument is that the shortcomings encountered when resolving the issues inherent in policy development and implementation, result in restrictions of NPM.

The evidence provided here seems to be realistic, well-founded and acceptable to this study. It has been suggested, that, in the ideal world, the success of LED policy-implementation relies on government being able to transform to governance where wide-ranging actors or stakeholders are involved and engaged. This is necessary and significant in this current study as it provides some challenges that are encountered when implementing LED policies and these challenges provide an insight into the hindrances encountered when the process of implementing a policy is multi-faceted and this also detracts from some of the positives of collective decision-making procedures. Furthermore, this study details the importance of collaborative action and working as a network when implementing public policy which provides the researcher with an idea of the role played by different actors when implementing LED policies.

3. ARNSTEIN'S THEORY OF LADDER OF CITIZEN PARTICIPATION

This study is underpinned by the theory of the Ladder of Participation. According to Sulemana & Simon (2018), the early promoter of this theory was Arnstein who proposed that through participation of the community must seek to redistribute power to enable the have-not community members who are excluded from the economic and political processes to be intentionally included. Furthermore, the author indicates that this model represents a ladder of progress from limited to more significant levels of meaningful participation, where each level has a certain degree of empowerment. Similarly, Arnstein (2015) argues that in most advancing countries, local planners put plans in place to eliminate poor communities with no means of participation in the decision-making processes and planning. She indicates that at the lower level, there are two forms of non-participation, which are therapy and manipulation. She indicates that some governmental institutions arrange forms of participation to deceive, which are aimed at getting stakeholders and citizens to accept a pre-decided course of action. Which in her view is where unsuspecting stakeholders and citizens may assume that they are part of the decision-making process, but, in actual fact, they are not; they are simply being manipulated and used by decision-makers. At a lower level of the ladder there is another form of non-participation which is termed 'therapy,' where government institutions that are decision-makers get stakeholders and citizens together to supposedly participate in planning and in decision-making processes, but the aim is to preach to stakeholders and citizens about the shortcomings that might be experienced by them (Arnstein, 2015). She further explains that placation is high up in the ladder. Moreover, the author argues that decision-makers giving-in to a limited number of stakeholders and citizens' demands does not necessarily mean that they are participating. Collaboration between non-profit institutions, and the private and public sectors are mentioned as one of three rungs of the ladder of participation that has over the years gained popularity. Arnstein places true collaboration relatively high on the ladder. Partnerships relate to redistribution of power wielded through negotiations and joint decision-making and planning (Arnstein, 2015). This argument was supported by Tritter & McCallum (2006) who argued that fifty-three years ago different groups in the community had varied needs. The rich, the poor, the powerful groups and the disempowered groups all have different sets of skills and resources that can shape decision-making and planning. In the same way, Reed, M. S., Vella, S., Challies, E., de Vente, J., Frewer, L., Hohenwallner-Ries, D., Sidoli del Ceno, J. (2018). were able to put this in the simplest terms, where they argued that each level of the ladder corresponds to the degree to which stakeholders and citizens have the power to shape the decision-making process through participation.

Despite the widespread use of Arnstein's theory, some scholars have some reservations. Two of these scholars who presented polemical criticisms of the theory are Tritter & McCallum, (2006). They explore the pertinence of Arnstein's typology of using participation when applied to contemporary developments in the healthcare industry in England and they compare their observations to those made by scholars in the Netherlands, Nordic countries and Canada. They argue that Arnstein's Ladder of Participation does not capture the evolutionary and dynamic nature of citizen participation. It does not consider the agency of citizen participation that may seek a dissimilar method of participation and involvement with regard to a variety of issues. They submit that the ladder fails to take into consideration that some citizens and stakeholders may not wish to participate. In spite of the stated weakness of the theory, this research study adopts the theory based on its ability to mobilise different levels of stakeholders and citizens in the planning and decision-making process and highlights elements that locate stakeholder engagement such as: community/ public participation/engagement, collaborative governance and partnerships.

Notwithstanding the highlighted criticism of the theory, this study finds it to be useful in shedding some light on stakeholder engagement in the SILEDP. Arnstein's theory of the Ladder of Participation places an emphasis on stakeholder participation that is democratic, allows one to critically consider how the

enhanced participation has the ability to reduce the economic, social and physical distance among the state officials, representatives and the citizens including other stakeholders. It further allows one to think through the impact that will be achieved if decision-making powers are transferred to all stakeholders: will it be responsive to local challenges; will the states be able to contain costs; will the policy outcomes be positive; will conditions of the local area improve and will the state officials be accountable? This is useful to this study as it allows one to comprehend the importance of stakeholder participation and the effects it might have.

4. METHODOLOGICAL ISSUES

This paper makes deductions based on data gathered through a mixed method approach in ILembe District in KwaZulu-Natal Province, South Africa.

Participants

The study drew on a mixed methods approach of quantitative and qualitative techniques. Participants for the study were purposively selected from participants from two government institutions (N=30), two private sector institutions (N=15) and five community-based institutions (N=60) that are involved in the SILEDP Swiss in KwaZulu-Natal (see Table 1).

Table 1 Participants

| Administrative Divisions of ILembe Swiss Funding | Population number | Population | Sample | Sampling method | Questionnaire | Interview | FGD (members per group) |
|---|---|----------------|------------|--------------------|---------------|-----------|-------------------------|
| KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (KNZ EDTEA) | Regional Local Economic Development Unit. | 25 | 15 | Purposive sampling | 5 | 2 | 8 |
| ILembe District Municipality | Local Economic Development Unit | 20 | 15 | | 9 | 2 | 4 |
| ILembe Chamber of Commerce | Small business development unit | 20 | 15 | | 5 | 2 | 8 |
| Swiss Secretariat of Economic Affairs (SSEA) | ILembe District Unit, area coordinators | 15 | 10 | | 5 | - | 5 |
| Community | Community representative | 657 612 | 50 | | 30 | 5 | 15 |
| TOTAL | | 657 692 | 105 | | 54 | 11 | 40 |

About 53.7 per cent were males while the female respondent is 46.3 per cent. In terms of age groups, 29.6 per cent of the respondents were in the age group of 20-25 years, while 26-35 age category constituted 27.8 per cent of all the participants. The majority of respondents were single (51.9 per cent), while the married respondents were 44.4 per cent and the other was 3.7 per cent. Regarding educational level, the majority of respondents were above first-degree education level with 55.5 per cent. Only 3.7 per cent of respondents had only primary education, while those who had post-secondary education level were 22.2 per cent and those who had secondary level of education were 18.5 per cent.

Instrumentation

In order to solicit the views of SILEDP stakeholders, a survey questionnaire was designed. The questionnaire included four broad themes, namely: policy formulation, institutional design, facilitative leadership and collaborative process in order to ascertain perspectives on and perception of SILEDP governance and stakeholder engagement. The first theme sought to comprehend the respondents' opinions regarding their perceptions and experiences with stakeholder engagement while the second theme sought to understand the framework within which the respondent's involvement in SILEDP governance and management operated. A five-step Likert Scale was also one of the data collection instruments used to gather data whereby respondents were asked to rate their level of agreement in terms of their perceptions of Stakeholder Engagement in SLEDP (1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Agree, 4 = Agree, 5 = Strongly Agreed). The questionnaire also contained open-ended questions where respondents could express their opinions.

Data collection procedures

Having been granted permission to conduct fieldwork by various SILEDP stakeholders, the study engaged with various stakeholders and explained to them the purposes of the study and that their participation was voluntary. In administering the interview guide, a descriptive questionnaire with open-ended and closed-ended questions was given to 54 selected participants. The study distributed five questionnaires to KZNEDTEA LED units in Pietermaritzburg, nine questionnaires to Ilembe District Municipality (IDM), five questionnaires to SSEA, four questionnaires to Ilembe Chamber of Commerce (ICC) officials in the Ilembe District and 30 questionnaires to community groups in the Ilembe District. These questionnaires were personally supervised and consisted of two phases: Phase 'A' asked for biographic information from the respondents and Phase 'B' consisted of questions that were related to the study questions. The questionnaires were administered using paper and they were completed by selected participants during the first phase of the process. This enabled respondents to answer questions that required specific responses, but also provided the opportunity to elaborate further if the need arose. There were five focus group discussions (FGD) and, in addition, 11 individual interviews were held with an individual from each Administrative Divisions of Ilembe Swiss Funding.

Data analysis

The researcher used both quantitative and qualitative data analysis techniques in analysing the data. All interview transcripts were processed and analysed. Firstly, all the interviews were transcribed verbatim. The transcribed data generated approximately 73 A4 printed pages. This study also utilised four (4) steps in thematic analysis. These are the identification of major themes, allocation of codes to main themes, thematic classification of responses and thematic integration of responses into texts. Quantitative data analysis was also utilised in focus group discussions and interviews in order to derive patterns and meanings. The Chi-square was also used to test the study's hypothesis on whether variables such as the stakeholders' classification and age, gender and qualifications determined their responses and whether or not their responses were influenced by such variables.

5. FINDINGS

In order to determine the degree of stakeholder engagement in the SILEDP, the questions were about their opinion and experience of stakeholder engagement in SILEDP. Various themes emerged. The following themes emerged from this research question:

- the need to redesign the stakeholder engagement framework;

- stakeholder satisfaction;
- adequate stakeholder involvement;
- Stakeholder communication links; and
- stakeholder engagement feedback systems.

Utilising interviews and questionnaires, respondents were asked how they viewed the already established institutional design for stakeholder engagement and the sections below presents the respondents’ responses.

The need to redesign the stakeholder engagement framework

Prior studies have acknowledged that governments around the world are moving towards various ways of decision-making that in essence considers the improved interdependency of public stakeholders with private and other stakeholders, as this enhances and gives opportunities to the citizens and other stakeholders to be involved in decision-making. In examining the views of SLEDP stakeholders, the researcher needed to acquire the viewpoint of SLEDP stakeholders on government re-designing the framework for stakeholder engagement. To be specific, the researcher wanted to know if the already-established stakeholder engagement frameworks are effective or not. Table1 demonstrates the perspective of respondents based on their divisions.

Table 2: Division: Need to redesign stakeholder engagement framework: Cross- tabulation

| Division | | Need to redesign stakeholder engagement framework | | | | | Total |
|-------------------|---------------------------------------|---|--------|--------|--------|--------|--------|
| | | SDA | D | SWA | A | SA | |
| ICC | % within Division | 0.0% | 0.0% | 60.0% | 40.0% | 0.0% | 100.0% |
| | % within Need to redesign | 0.0% | 0.0% | 27.3% | 7.4% | 0.0% | 9.3% |
| | % of Total | 0.0% | 0.0% | 5.6% | 3.7% | 0.0% | 9.3% |
| EDTEA | % within Division | 0.0% | 0.0% | 40.0% | 60.0% | 0.0% | 100.0% |
| | % within Need to redesign | 0.0% | 0.0% | 18.2% | 11.1% | 0.0% | 9.3% |
| | % of Total | 0.0% | 0.0% | 3.7% | 5.6% | 0.0% | 9.3% |
| IDM | % within Division | 0.0% | 11.1% | 33.3% | 33.3% | 22.2% | 100.0% |
| | % within Need to redesign stakeholder | 0.0% | 33.3% | 27.3% | 11.1% | 18.2% | 16.7% |
| | % of Total | 0.0% | 1.9% | 5.6% | 5.6% | 3.7% | 16.7% |
| SSEA | % within Division | 0.0% | 0.0% | 20.0% | 80.0% | 0.0% | 100.0% |
| | % within Need to redesign | 0.0% | 0.0% | 9.1% | 14.8% | 0.0% | 9.3% |
| | % of Total | 0.0% | 0.0% | 1.9% | 7.4% | 0.0% | 9.3% |
| Community Members | % within Division | 6.7% | 6.7% | 6.7% | 50.0% | 30.0% | 100.0% |
| | % within Need to redesign | 100.0% | 66.7% | 18.2% | 55.6% | 81.8% | 55.6% |
| | % of Total | 3.7% | 3.7% | 3.7% | 27.8% | 16.7% | 55.6% |
| Total | % within Division | 3.7% | 5.6% | 20.4% | 50.0% | 20.4% | 100.0% |
| | % within Need to redesign | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| | % of Total | 3.7% | 5.6% | 20.4% | 50.0% | 20.4% | 100.0% |

SD = Strongly Disagree, D = Disagree, SWD = Somewhat Agree, A= Agree, SA= Strongly Agreed. Source: Field Survey 2019. Sample size = 54

A majority of the respondents 50 per cent agree and 20.4 per cent strongly agree to this statement that government still needs to re-design a framework, which will clarify the role of stakeholder engagement in LED initiatives, while 20.4 per cent of the respondents somewhat agree with this statement (Table 2). The minority of respondents 3.7 per cent strongly disagree and 5.6 per cent disagree with this statement. On the one hand, this result can be scrutinised further in Table 2 where the table shows that of the respondents from the community members division, 50 per cent of them agree that there is still a need to re-design a stakeholder engagement framework. It also reveals that 55.6 per cent of all the respondents that agree to this statement were from the community members' division. Respondents from ICC who agree to this statement were 40 per cent and 7.4 per cent from the overall respondents were from ICC. 60 per cent of EDTEA respondents agreed and 11.1 per cent of respondents who agree to the statement were from EDTEA. 33.3 per cent of IDM respondents agreed to the statement while 27.3 per cent of respondents agree with the statement. Furthermore 80 per cent of the respondents from SSEA agreed to the statement and 14.8 per cent of all the respondents who agree with the statement were from SSEA. However, the views of the respondents were insignificantly related to the division of respondents as illustrated in Chi-square test ($\chi^2= 17.345$, $df = 16$, $p = 0.364$). Therefore, it can be concluded that the variations were a result of chance. One interview respondent noted:

... stakeholder engagement framework we have is ineffective but as obligated by the legislation we try our best to engage stakeholders although in my view it's just a matter of compliance (IR3).

In summary, while surveyed respondents agree that government still needs to re-design a stakeholder framework that will clearly define a stakeholder's role, respondents who were interviewed showed a similar view and provided reasons why they believe there is a need to re-design the stakeholder framework. Interestingly, statements paint a picture that, even though there is a stakeholder engagement framework in policy formulation, implementation and governance it is ineffective and it needs to be re-designed in a way that will enable all stakeholders to have a meaningful role to play in policy formulation, implementation and governance.

Stakeholder satisfaction in the Swiss Local Economic Development programme in ILembe District Municipality.

Stakeholder satisfaction may be described as a realization of stakeholders' expectations of the actual performance, which is often measured in different programme/project stages. Stakeholder satisfaction is dependent on mechanisms of management such as participation, communication and the outcomes of the project. Therefore, the researcher needed to establish whether or not the stakeholders, particularly the community, were satisfied to be the host of the SLEDP. The respondents were asked the same and Table 3 illustrates the level of satisfaction in relation to stakeholders of SLEDP.

Table 3: Are you satisfied that you are hosting the SLEDP: Cross-tabulation

| Division | | Satisfied that you are hosting the programme | | | | | Total |
|----------|------------------------------|--|-------|-------|--------|------|--------|
| | | EU | NS | U | S | ES | |
| ICC | % within Division | 0.0% | 40.0% | 40.0% | 20.0% | 0.0% | 100.0% |
| | % within are you satisfied t | 0.0% | 16.7% | 10.0% | 5.6% | 0.0% | 9.3% |
| | % of Total | 0.0% | 3.7% | 3.7% | 1.9% | 0.0% | 9.3% |
| EDTEA | % within Division | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| | % within are you satisfied | 0.0% | 0.0% | 0.0% | 27.8% | 0.0% | 9.3% |
| | % of Total | 0.0% | 0.0% | 0.0% | 9.3% | 0.0% | 9.3% |

| | | | | | | | |
|-------------------|----------------------------|--------|--------|--------|--------|--------|--------|
| | % within Division | 0.0% | 33.3% | 44.4% | 22.2% | 0.0% | 100.0% |
| IDM | % within are you satisfied | 0.0% | 25.0% | 20.0% | 11.1% | 0.0% | 16.7% |
| | % of Total | 0.0% | 5.6% | 7.4% | 3.7% | 0.0% | 16.7% |
| | % within Division | 0.0% | 20.0% | 60.0% | 20.0% | 0.0% | 100.0% |
| SSEA | % within are you satisfied | 0.0% | 8.3% | 15.0% | 5.6% | 0.0% | 9.3% |
| | % of Total | 0.0% | 1.9% | 5.6% | 1.9% | 0.0% | 9.3% |
| | % within Division | 10.0% | 20.0% | 36.7% | 30.0% | 3.3% | 100.0% |
| Community Members | % within are you satisfied | 100.0% | 50.0% | 55.0% | 50.0% | 100.0% | 55.6% |
| | % of Total | 5.6% | 11.1% | 20.4% | 16.7% | 1.9% | 55.6% |
| | % within Division | 5.6% | 22.2% | 37.0% | 33.3% | 1.9% | 100.0% |
| Total | % within are you satisfied | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| | % of Total | 5.6% | 22.2% | 37.0% | 33.3% | 1.9% | 100.0% |

EU = Extremely Unsatisfied, NS= Not Satisfied, U= Uncertain, S= Satisfied, ES= Extremely Satisfied. Source: Field Survey 2019. Sample size = 54.

From Table 3; it is evident that the majority of respondents (37 per cent) indicated that they were uncertain about being satisfied about being the host of the SILEDP, while 33.3 per cent reported that they were satisfied to host this programme. Moreover, 1.9 per cent of respondents reported being satisfied while 22.2 per cent and 5.6 per cent of respondents reported that they were not satisfied and extremely dissatisfied respectively. This result may suggest that, although some of the stakeholders are aware of this programme, the majority of them are uncertain about being satisfied about being hosts of the SLEDP. This may be caused by the limited stakeholder participation in the programme. Another possible explanation for this result may be due to non-visible benefits for stakeholders.

Further analysis from Table 3 reveals that 36.6 per cent of all respondents in the community members' division were uncertain whether they were satisfied or not satisfied about being hosts of the programme and this was based on responses from 11 respondents. Moreover, 55 per cent of all respondents who reported uncertainty were from the community members' division. On the other hand, respondents from SSEA, who reported to be uncertain, were 60 per cent while 15 per cent of all respondents who were uncertain were from SSEA. Moreover, 44.4 per cent of the respondents from IDM also reported being uncertain and 15 per cent of all respondents who reported being uncertain were from IDM. Similarly, 40 per cent of ICC respondents indicated that they were uncertain as well, while 10 per cent of all respondents that were uncertain were from ICC and 10 per cent of all the respondents that reported to be uncertain were from ICC and there was none (0 per cent) from EDTEA who were uncertain. This result suggests that many who are uncertain about hosting the programme and particularly the community members stakeholders are the ones showing strongest signs of being uncertain. Remarkably, the community members of the division comprised the majority of respondents (30) when compared to all the other divisions in this study. The Chi-square test shows that the views of the respondents were insignificantly associated with their divisions ($\chi^2 = 9714$, $df = 16$, $p = 0.457$).

Placing focus on the FGD and interviews, the researcher asked the respondents what had been done to enlighten them about the SLEDP initiative. This was asked with the view to ascertaining what actual steps and activities had already been undertaken to ensure that the stakeholders are aware of this programme. This would impact on linking this question to the satisfaction of stakeholders being hosts of the programme. One focus group respondent reflected that:

Public hearings and stakeholder consultations were conducted in various wards within the district, although one can say the anticipated number in attendance was not achieved. FG2 R4

I have not experienced any participation or involvement of any community member in the programme. Thus I say the community does not have a role in this programme. FG5R11

The most striking result to emerge from the data is that formal institutions are of the view that the stakeholders are engaged and enlightened about this programme, while the community members division is of a different view as they report that they were not engaged and are not enlightened about this programme. The result from FDG and interviews reveals reasons why the majority of the survey respondents reported that they are uncertain about being satisfied with being the host of the programme. The majority of the respondents were the community members of the division as shown in the Chi-square ($\chi^2 = 9714$, $df = 16$, $p = 0.457$). These results combined, suggest that even though there were engagements, consultations and road shows, the majority of the community members as stakeholders were not aware of the project, Therefore, most of them in the survey reported being uncertain and this has had a negative impact on the success of the programme.

6. DISCUSSION

This study aimed to determine the effectiveness of stakeholder engagement in the SLEDP using interviews. This study has established that there is a need to redesign the stakeholder engagement framework. In democratic countries around the globe, stakeholders, particularly the citizens, are assumed to be important and that their involvement and participation, whether indirect or direct, is fundamental to policy formulation, implementation and governance. When the respondents were asked if there is a need for government to redesign the stakeholder engagement framework, the responses received indicated that the respondents see the need for government to redesign stakeholder engagement. Interestingly, the views expressed by the questionnaire-surveyed respondents were similar and consistent with the previous work done by Sulemana & Simon (2018), who examined the degree of stakeholder participation in Monitoring and Evaluation of projects in Ghana and who reported that the support and framework for stakeholder engagement in policy formulation, implementation and governance had been ineffective. Furthermore, they argue that the degree of stakeholder engagement in African countries can be labeled as tokenistic and consultative which, in their view, does not characterise the deeper meaning of engagement.

Similarly, the results correspond with the assessment made by Cristofoli, Meneguzzo, & Riccucci (2017) who provide a Public Management review and who found that governments have for many years been undergoing processes of reform, under the broader notion of the New Public Governance (NPG) and New Public Management (NPM), where collaboration is founded on the relationship between the state, private sector, social enterprises, civil society and Non-Profit Organisations. These findings show that the current stakeholder engagement framework is ineffective and the relationship between the stakeholders is somewhat disjointed. Therefore, new stakeholder engagement frameworks that will suit the current setting should be considered if the desire and appetite to have successful stakeholder engagement is to be satisfied. That being said, the implications of these findings is that ideally, if the current stakeholder engagement framework utilised is not reviewed, continuous stakeholder dissatisfaction protests will persist; there will be a loss of inward-investments into the country, poor services delivery, continuous lack of accountability

and transparency; and, eventually the loss of confidence in the government on the part of the citizens and other stakeholders will result.

The interviewees' perspectives were similar to those of the surveyed respondents and their views paint a picture that suggests that, even though there is a stakeholder engagement in the framework of the Swiss I Lembe Local Economic Development Programme, it is ineffective and needs to be re-designed in a way that will enable all stakeholders to have a meaningful role to play in policy formulation, implementation and governance. The most intriguing correlation is that both results show that the structures and systems utilised for stakeholder engagement are also ineffective as the majority of respondents agree that government needs to re-design the stakeholder engagement framework in policy formulation, implementation and governance in the I Lembe District Municipality.

These results are indistinguishable from those of many other scholars like Brian & Alford (2015); Alford & O'flynn (2012) and Nowell & Harrison (2016) who, in their respective studies, report that the existence of a collaborative relationship is most likely to improve the understanding of policy-formulation, where multi-stakeholders with varied expectations, skills, interest, knowledge and values are engaged in pursuing a common goal. The importance of an effective stakeholder-engagement framework is emphasised by Alford & O'flynn (2012), who argue that it is one form which is often termed 'collaborative advantage' where each stakeholder has a certain responsibility and role to render in policy formulation, implementation and governance and, if done correctly, the challenges experienced in policy-formulation will not persist.

Stakeholder satisfaction is regarded as one of the most important aspects of stakeholder engagement. Many varied interests can be both positively and negatively affected throughout the duration of a policy formulation, from development through to governance. On the question of being satisfied with being the host district for the SILEDP, this study aimed to determine the level of stakeholder satisfaction for hosting the SILEDP. This study found that the stakeholders were not certain about being hosts of the SILEDP. The study participants reported that roadshows, public consultations and programme awareness activities were conducted. However, they reported further that the attendance of the community was not what had been hoped for and their view was that the stakeholders lacked awareness of the programme. This finding provided reasons as to why the stakeholders of SILEP are uncertain about the programme. They are simply not aware of it and they further confirm the earlier observation made by Alford & O'flynn (2012) that maintained that there is still a need for government to redesign an effective stakeholder engagement framework.

This substantiates the previous findings in the literature where a recent study by Li, Ng, & Skitmore (2013), evaluates the stakeholder satisfaction with public participation in the construction and infrastructure projects in Mainland China and Hong Kong. The study found that the present participatory usage in China typically takes the form of apprising the stakeholders of the concluded designs and plans instead of inviting them to convey their views and opinions without obstruction before decisions are taken and which, according to the author, is contrary to the perceived spirit of stakeholder engagement. Moreover, further studies carried out by Thaler & Levin-Keitel (2016), Thaler, Tseng & Rowsell (2012) concur with these findings. Their studies examine stakeholder engagement in flood-risk management. They report that stakeholder engagement that can be deemed as successful if determined by the awareness and involvement of community-based stakeholders. However, they observe that the engagement of local stakeholders is heavily dependent on their social capacity like self-interest, motivation, networks, organisation, knowledge and procedural capacity. From what the body of knowledge has observed; it is apparent that stakeholders, particularly the community, are not satisfied with the manner in which policies that affect their day-to-day lives are being formulated. Their participation and involvement is limited, while their interests and

concerns are not taken into account. Some of the issues emerging from this finding relates specifically to citizens' dissatisfaction in a broader context and raises concerns as to whether or not citizens' participation and involvement in government matters in SA is effective or not, or if the interests, concerns and views of a normal citizen in SA matter and what influence the citizens have on government.

7. CONCLUSION

This study sought to understand the state and effectiveness of stakeholder engagement in the ILembe Swiss Local Economic Development programme. This study established that the structures and systems utilised for stakeholder engagement are ineffective in properly engaging all stakeholders to the upper levels of the Ladder of Participation. Ostensibly, stakeholder engagement seems to be happening at the superficial and at the 'tokenist' level. It is apparent that not all stakeholders are satisfied with being the host of the programme as the data presented reveals that, although there were engagements, consultations and road shows, not all stakeholders are aware of this programme, particularly the community at large. Another most obvious finding to emerge from this study is that in general, the level of community involvement and participation is low and the already established communication links are selective and are not intended for all stakeholders. Overall, it can be said and argued that the degree of stakeholder engagement varies from stakeholder to stakeholder and those stakeholders that are formally constituted are most likely to influence decisions and are considered to be stakeholders. These findings have profound implications for policymakers, practitioners and scholars alike. First, the findings suggest that government needs to ensure and strengthen stakeholder engagement or to re-design the stakeholder engagement framework. Stakeholder engagement frameworks, communication tools and modes of stakeholder engagement must be reviewed and should be modernised in order to cater for the contemporary setting and way of doing things. Although this study was small in scale, its penetrating insights raise issues that seem to challenge theoretical propositions of the proponents of collaborative governance particularly the ladder public participation. These insights should prompt further and large-scale studies that interrogate and put the test collaborative governance theoretical propositions.

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