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EXPLORING THE IMPACT OF DIGITAL TRANSFORMATION ON SMALL BUSINESS SUSTAINABILITY: STRATEGIES, CHALLENGES, AND OPPORTUNITIES

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Abstract

The digital era has brought forth significant changes in the business landscape, presenting both challenges and opportunities for small businesses. This study delves into the impact of digital transformation on the sustainability of small businesses, exploring how these entities can leverage technology to thrive in a rapidly evolving market. The aim is to identify effective digital strategies that enhance operational efficiency, market competitiveness, and environmental sustainability, while also acknowledging the hurdles small businesses face in adopting these technologies. A qualitative method with the insights from 30 in-depth interviews. The sample size will be among businesses across various sectors and located in diverse geographical areas to ensure a comprehensive understanding. The study focused on aspects like digital tool adoption, market adaptation, and sustainability practices. Data analysis will be thematic analysis to identify prevailing trends and patterns. The findings indicate a positive correlation between digital transformation and business sustainability. Key results show that small businesses utilising digital tools for marketing, customer relationship management, and operational efficiency report higher growth and resilience. However, challenges such as lack of digital literacy, limited financial resources, and cybersecurity concerns are significant barriers. The study also highlights a notable gap in technology adoption between urban and rural businesses. Digital transformation emerges as a vital component for the sustainability and growth of small businesses. The study recommends targeted educational programmes to enhance digital literacy, government incentives for technology adoption, and stronger cybersecurity frameworks. Collaboration between businesses and technology providers is also suggested to develop affordable and customised digital solutions. The research underscores the need for a holistic approach, integrating technology with business strategy to achieve sustainable growth.

Keywords: Digital transformation, small business sustainability, technology adoption, market resilience, cybersecurity, digital literacy, business strategy

INTRODUCTION

Digital transformation refers to integrating digital technologies into all areas of a business, fundamentally changing how businesses operate and deliver value to customers (Chen, Lin, Chen, Chao & Pandia, 2021). For small businesses, digital transformation can significantly impact sustainability, offering new opportunities and presenting unique challenges (Philbin, Viswanathan & Telukdarie, 2022). Embracing digital transformation can enhance their competitiveness, resilience, and sustainability in an increasingly digital world. Small businesses can leverage cloud computing, customer relationship management (CRM) systems, and e-commerce platforms to streamline operations and enhance customer engagement (Hanelt, Bohnsack, Marz & Antunes Marante). Research done by Mandviwalla, and Flanagan (2021) emphasises that implementing data analytics to make informed decisions can optimise business processes, improve customer experiences, and increase operational efficiency. Digital transformation offers small businesses a pathway to sustainability by enabling more efficient operations, expanding market reach, and supporting sustainable practices.

In today's rapidly evolving business landscape, the integration of digital technologies has become a paramount aspect of organisational strategies across industries. Small businesses, often considered the backbone of economies worldwide, are not exempt from this digital revolution, as they navigate the challenges of the modern marketplace, understanding the implications of digital transformation on their sustainability has become imperative (Hanelt et al., 2021). Small businesses play a crucial role in driving economic growth, innovation, and job creation in both developed and emerging economies (Vial, 2021). However, they often face unique challenges, including limited resources, fierce competition, and changing consumer preferences. Research done by (Burns, 2022) established that the proliferation of digital technologies has introduced both opportunities and complexities for these businesses, through from e-commerce platforms to data analytics tools, digital transformation offers small businesses the potential to enhance efficiency, reach new markets, and streamline operations. Nevertheless, leveraging these technologies effectively requires a strategic approach and a deep understanding of their impact on sustainability.

Digital transformation refers to the integration of digital technologies into all aspects of business operations, fundamentally changing how organisations operate and deliver value to customers (Gregurec, Tomičić Furjan & Tomičić-Pupek (2021).). Digital transformation is not merely about adopting new technologies but also entails cultural shifts, organisational restructuring, and strategic alignment with business objectives (Jafari-Sadeghi, Garcia-Perez, Candelo & Couturier, 2021). Sustainability in the context of small businesses extends beyond environmental considerations to encompass economic viability, social responsibility, and long-term resilience (Feroz, Zo & Chiravuri, 2021). According to Mandviwalla and Flanagan (2021) states that small businesses that prioritise sustainability are better positioned to withstand market disruptions, attract investment, and build trust with stakeholders. Moreover, sustainable practices can lead to cost savings, operational efficiency improvements, and enhanced brand reputation. This study holds significance for various stakeholders, including small business owners, policymakers, researchers, and industry practitioners. By shedding light on the impact of digital transformation on small business sustainability, this research aims to inform strategic decision-making, policy formulation, and business practices aimed at fostering sustainable and resilient small businesses in the digital age.

Purpose of the Research

The purpose of this research is to explore the impact of digital transformation on the sustainability of small businesses. By examining the strategies, challenges, and opportunities associated with digital transformation, this study seeks to provide insights into how small businesses can adapt and thrive in the digital age. Specifically, the research aims to identify the key factors influencing the success of digital transformation initiatives in small businesses and assess their implications for sustainability.

Research Objectives and Questions

The research objectives are as follows:

- To understand the importance of sustainability for small businesses in the context of digital transformation.
- To identify the challenges faced by small businesses in implementing digital transformation initiatives.
- To examine the opportunities arising from digital transformation for small business sustainability.

The research will address the following questions:

- How does digital transformation impact the economic, social, and environmental sustainability of small businesses?
- What challenges do small businesses encounter in implementing digital transformation initiatives, and how do they overcome them?
- What opportunities does digital transformation present for small businesses to enhance their sustainability performance?

LITERATURE REVIEW

Theoretical Frameworks Relevant to Digital Transformation and Small Business Sustainability

Digital transformation has become a vital strategy for small businesses to adapt to the evolving business landscape and remain competitive (Li, 2022). Small businesses are increasingly leveraging digital technologies to streamline operations, enhance customer experiences, and drive growth in adoption of various digital tools such as e-commerce platforms, cloud computing solutions, data analytics, and mobile applications (Ghosh, Hughes, Hodgkinson & Hughes, 2022). Digital transformation enables small businesses to access new markets, improve efficiency, and innovate in ways previously not possible.

Digital transformation in small businesses refers to the strategic integration of digital technologies into all aspects of their operations, processes, and business models to drive innovation, improve efficiency, and enhance competitiveness (Li, 2022). Accordingly, to Rupeika-Apoga, Petrovska and Bule (2022) mentioned that digital transformation entails a fundamental shift in mindset, culture, and organisational practices to leverage the full potential of digital technologies, which encompasses in adopting cloud computing solutions, implementing data analytics tools, embracing e-commerce platforms, and leveraging emerging technologies such as artificial intelligence (AI) and Internet of Things (IoT). Digital transformation involves reimagining business processes, enhancing customer experiences, and creating new value propositions enabled by technology (Ghosh et al., 2022).

Numerous studies have examined the impact of digital transformation on small business sustainability (Mandviwalla & Flanagan, 2021; Teng, Wu & Yang, 2022; Ta & Lin, 2023). Research has shown that small businesses that embrace digital technologies tend to experience improvements in productivity, profitability, and market competitiveness (Gregurec et al., 2021; Jafari-Sadeghi et al., 2021; Feroz et al., 2021; Mandviwalla & Flanagan, 2021). However, gaps remain in understanding the specific strategies, challenges, and opportunities associated with digital transformation for small business sustainability, warranting further investigation. Through digital transformation, small businesses can develop and leverage unique resources such as data analytics expertise or innovative technology solutions to enhance their sustainability performance (Ta & Lin, 2023). Therefore, understanding these theoretical perspectives can inform strategies for integrating digital transformation and sustainability initiatives effectively.

Strategies for Digital Transformation in Small Businesses

Adoption of E-commerce Platforms

The adoption of e-commerce platforms is a crucial strategy for small businesses to leverage digital transformation effectively. E-commerce platforms enable small businesses to establish an online presence, reach a broader customer base, and facilitate transactions efficiently (Klein & Todesco, 2021). Research by Chen, Lin, Chen, Chao and Pandia (2021) suggests that small businesses that embrace e-commerce experience higher revenue growth and profitability compared to those that rely solely on traditional brick-and-mortar operations. Moreover, e-commerce platforms offer small businesses opportunities to personalise customer experiences, optimise inventory management, and track sales performance, contributing to overall business growth and sustainability.

Integration of Digital Marketing Strategies

Integrating digital marketing strategies is essential for small businesses to enhance their visibility, engage customers, and drive sales in the digital era. Research by Jones, Hutcheson, and Camba (2021) highlights the importance of leveraging digital marketing channels such as social media, search engine optimisation (SEO), email marketing, and content marketing to reach target audiences effectively. By adopting digital marketing strategies, small businesses can improve brand awareness, generate leads, and nurture customer relationships, ultimately leading to increased sales and revenue. Jones, Hutcheson, and Camba (2021) state that digital marketing enables small businesses to measure campaign performance, analyse customer behaviour, and refine marketing tactics for better results.

Utilisation of Data Analytics for Business Insights

The utilisation of data analytics for business insights is essential for small businesses to make informed decisions, identify trends, and optimise performance. Data analytics tools enable small businesses to collect, analyse, and interpret data from various sources, including customer interactions, sales transactions, and market trends. Research by Hanelt et al. (2021) highlights the transformative impact of data analytics on small businesses, enabling them to gain actionable insights, predict future trends, and identify growth opportunities. Kraus, Durst, Ferreira, Veiga, Kailer and Weinmann (2022) states that harnessing the power of data analytics, small businesses can improve marketing effectiveness, optimise pricing strategies, and enhance operational efficiency, driving sustainable growth and profitability. Winarsih, Indriastuti and Fuad (2021) establishes that the automation of business processes is a key strategy for small businesses to streamline operations, reduce manual errors, and improve productivity. Automation technologies, such as robotic process automation (RPA), workflow automation, and artificial intelligence (AI), enable small businesses to automate repetitive tasks, standardise workflows, and free up valuable human resources for more strategic activities.

Research by Kraus et al. (2022) suggests that small businesses that embrace automation experience higher levels of efficiency, innovation, and competitiveness compared to their peers in automating business processes, small businesses can reduce costs, enhance customer experiences, and accelerate time-to-market, positioning themselves for sustainable growth and success in the digital age. Collaboration and networking through digital platforms are essential strategies for small businesses to foster partnerships, exchange knowledge, and access new opportunities (Zoppelletto, Bullini Orlandi & Rossignoli, 2020). Digital platforms, such as social media, online forums, and industry-specific networks, enable small businesses to connect with peers, customers, suppliers, and industry experts worldwide. Research by Winarsih et al. (2021) emphasises the role of digital platforms in facilitating collaboration, knowledge sharing, and innovation in small businesses. By leveraging digital platforms for collaboration and networking, small businesses can tap into a wealth of resources, expertise, and support, enabling them to overcome challenges, seize opportunities, and thrive in an increasingly interconnected business environment.

Challenges Faced by Small Businesses in Digital Transformation

Financial Constraints

Financial constraints represent a significant challenge for small businesses embarking on digital transformation initiatives. Limited financial resources often restrict small businesses' ability to invest in new technologies, upgrade existing systems, and hire skilled personnel. Research by Adedoyin and Soykan (2023) highlights the disparity in financial resources between small and large enterprises, with small businesses facing higher barriers to accessing capital for digital transformation projects. Lack of funding can impede small businesses' ability to compete effectively in the digital marketplace and hinder their long-term sustainability and growth prospects.

Lack of Digital Skills and Knowledge

The lack of digital skills and knowledge among employees poses a considerable barrier to digital transformation for small businesses. Research by Troise, Corvello, Ghobadian and O'Regan (2022) indicates that a significant proportion of small businesses struggle to recruit and retain employees with the necessary digital competencies to implement and manage digital technologies effectively. Feroz, Zo and Chiravuri (2021) state that the rapid pace of technological change exacerbates skill gaps, making it challenging for small businesses to keep pace with evolving digital trends and best practices. Without adequate training and upskilling initiatives, small businesses risk falling behind competitors and missing out on opportunities for innovation and growth.

Resistance to Change

Resistance to change is a common challenge encountered by small businesses undertaking digital transformation initiatives. Employees and management may resist adopting new technologies due to fear of job displacement, uncertainty about the implications of digitalisation on their roles, or reluctance to abandon familiar processes and routines. Research by Teng, Wu & Yang (2022) emphasises the importance of addressing organisational culture and leadership buy-in to mitigate resistance to change and promote successful digital transformation. Without effective change management strategies, small businesses may encounter resistance at various levels, hindering the implementation and adoption of digital technologies.

Cybersecurity Concerns

Cybersecurity concerns represent a significant risk for small businesses undergoing digital transformation. Research by Feroz et al. (2021) reveals that small businesses are increasingly targeted by cyberattacks due to their perceived vulnerabilities and limited cybersecurity defences. Bygstad, Øvrelid, Ludvigsen, and Dæhlen (2022) note that the proliferation of digital technologies and interconnected systems exposes small businesses to various cybersecurity threats, including data breaches, ransomware attacks, and phishing scams. Moreover, small businesses often lack the resources and expertise to implement robust cybersecurity measures and protocols, leaving them vulnerable to cyber threats that can disrupt operations, compromise sensitive information, and damage reputation.

Integration Issues with Existing Systems

Integration issues with existing systems present a significant challenge for small businesses seeking to adopt new digital technologies. Legacy systems, outdated software, and disparate data sources can impede the seamless integration of digital solutions and inhibit data sharing and interoperability. Research by Troise et al. (2022) suggests that small businesses often struggle with technical complexities and compatibility issues when integrating new technologies with legacy infrastructure. Poor integration can lead to inefficiencies, data silos, and operational bottlenecks, undermining the effectiveness of digital transformation initiatives and limiting their impact on business performance.

Opportunities Arising from Digital Transformation for Small Businesses

Digital transformation opens opportunities for small businesses to access larger markets beyond their traditional geographic boundaries. Research by Appio, Frattini, Petruzzelli and Neirotti (2021) indicates that e-commerce platforms and digital marketing channels enable small businesses to reach global audiences and tap into new market segments previously inaccessible through brick-and-mortar operations alone. Additionally, online marketplaces and cross-border e-commerce platforms provide small businesses with the infrastructure and resources to expand their reach and sell products/services internationally. Kraus, Durst, Ferreira, Veiga, Kailer and Weinmann (2022) states that leveraging digital technologies in small businesses can overcome geographical constraints, expand their customer base, and diversify revenue streams, leading to sustained growth and competitiveness in the global marketplace. Digital transformation empowers small businesses to enhance customer engagement and deliver personalised experiences across multiple touchpoints. Research by Klein., & Todesco (2021) highlights the importance of leveraging digital channels such as social media, mobile apps, and chatbots to interact with customers in real time, address their needs promptly, and build lasting relationships. Data analytics tools enable small businesses to gather insights into customer preferences, behaviours, and feedback, allowing them to tailor products/services, marketing campaigns, and support services to meet individual needs effectively (Nadkarni & Prügl, 2021). By prioritising customer engagement and experience, small businesses can foster loyalty, advocacy, and repeat business, driving sustainable growth and profitability over time.

Improved Operational Efficiency

Digital transformation enables small businesses to streamline operations, automate processes, and improve efficiency across various functions. Research by Khurana, Dutta and Ghura (2022) suggests that cloud computing solutions, digital workflow automation, and enterprise resource planning (ERP) systems empower small businesses to optimise resource allocation, reduce manual errors, and accelerate time-to-market. Kraus et al. (2022) mention that data analytics tools provide insights into operational performance, identify bottlenecks, and facilitate continuous improvement initiatives. By embracing digital technologies, small businesses can enhance productivity, reduce costs, and reinvest savings into innovation and growth initiatives, thereby gaining a competitive edge in their respective markets.

Agility and Adaptability to Market Changes

Digital transformation equips small businesses with the agility and adaptability needed to respond quickly to market changes, emerging trends, and competitive pressures. Research by Soluk and Kammerlander (2021) emphasises the importance of digital platforms, agile methodologies, and flexible business models in enabling small businesses to pivot, experiment, and innovate in rapidly evolving environments. Cloud-based infrastructure, software-as-a-service (SaaS) solutions, and modular architectures provide small businesses with the scalability and flexibility to scale operations up or down based on demand, seize new opportunities, and mitigate risks effectively (Vaska, Massaro, Bagarotto & Dal Mas, 2021). By fostering a culture of innovation and experimentation, small businesses can stay ahead of the curve and position themselves for long-term success in dynamic markets.

Innovation and Product Development

Digital transformation fosters innovation and accelerates product development cycles for small businesses. Research by Bai, Quayson, and Sarkis (2021) suggests that digital technologies such as artificial intelligence, Internet of Things (IoT), and 3D printing enable small businesses to create new products/services, enhance existing offerings, and explore new business models. Soluk and Kammerlander (2021) highlight that digital platforms and collaboration tools facilitate co-creation, crowdsourcing, and open innovation initiatives, allowing small businesses to tap into external expertise, resources, and ideas. By embracing a culture of innovation and leveraging digital technologies creatively, small businesses can differentiate themselves in the marketplace, drive customer value, and capture new revenue streams, fuelling sustained growth and competitiveness.

Digital transformation unlocks scalability and growth potential for small businesses by eliminating traditional barriers to expansion and enabling rapid scalability. Research by Klein., & Todesco (2021) highlights the role of cloud computing, digital platforms, and software-driven business models in enabling small businesses to grow quickly, enter new markets, and seize opportunities without significant upfront investments in infrastructure or resources. Perkin and Abraham (2021) note that digital technologies facilitate partnerships, collaborations, and ecosystem-driven growth strategies, allowing small businesses to leverage external networks, resources, and capabilities to scale operations efficiently. By harnessing the power of digital transformation, small businesses can achieve sustainable growth, maximise market share, and create long-term value for stakeholders.

METHODOLOGY

Research Design

The research design for this study was qualitative methods to gather comprehensive insights into the impact of digital transformation on small business sustainability. A qualitative method with insights from 30 participants. The sample sizes were among businesses across various sectors and located in diverse geographical areas to ensure a comprehensive understanding. The qualitative aspect will involve in-depth interviews with small business owners, industry experts, and stakeholders to understand their perspectives, experiences, and challenges related to digital transformation and sustainability. Thematic analyses were employed to analyse interview transcripts and case study findings, identifying recurring themes, patterns, and insights related to digital transformation and sustainability. Convenience sampling was used to utilised to select participants for interviews and case studies based on their availability, accessibility, and relevance to the research objectives.

Sample Population

The sample population for this study consisted of small businesses across various industries and geographic locations. A total of 30 participants of small business owners and stakeholders participated in the were interviewed and conducted to provide in-depth insights into sustainable digital transformation initiatives.

Identification of Patterns, Trends, and Themes

Thematic analysis was carried out into patterns, and themes emerged from the data.

Themes	Patterns
Strategies for Digital Transformation in Small Businesses	• Market dynamics • Technological advancement • Customer expectations
Opportunities Arising from Digital Transformation for Small Businesses	• Environmental impact • Enhance social responsibility • Foster economic resilience
Challenges Faced Among Small Business	• Financial constraints • Skills gaps • Integration issues with existing systems

FINDINGS

Strategies for Digital Transformation in Small Businesses on the Study

The findings of the study were revealed based on strategies for digital transformation in small businesses. The following participants 6, 17, 21, and 30 comments:

Participant 6: *Hmm, small businesses always leverage on customer insights, feedback, and market research to develop personalised experiences, improve products and services, and enhance overall customer satisfaction. On the other hand, digital transformation strategies should be centred around understanding and meeting the needs of customers.*

Participant 17: *Engaging employees in the digital transformation process is crucial for success, it helps small businesses to invest in employee training and development programmes to build digital skills, foster a culture of innovation, and empower employees to embrace new technologies and ways of working.*

Participant 21: *Yes, small businesses should try and protecting against cybersecurity threats and managing risks is paramount in digital transformation. Small businesses should implement robust cybersecurity measures, such as encryption, firewalls, and employee training, to safeguard sensitive data and ensure compliance with regulatory requirements.*

Participant 30: *Improving customer experience is a key objective of digital transformation for small businesses by offering seamless omnichannel experiences, personalised interactions, and responsive customer support, businesses can build customer loyalty, increase retention, and differentiate themselves in the market.*

Most of the participants mentions some of the common strategies for digital transformation in small businesses is a holistic approach and implementing that these strategies can be adopted effectively, so therefore small businesses can drive innovation, improve competitiveness, and achieve sustainable growth in today's digital economy.

Challenges Faced by Small Businesses in Digital Transformation

Participant 7: *Small businesses are often struggle with limited budgets, manpower, and technical expertise when embarking on digital transformation initiatives. This constraint can hinder their ability to invest in the necessary technologies, infrastructure, and talent required for successful digital transformation.*

Participant 9: *Small businesses are increasingly vulnerable to cybersecurity threats such as data breaches, ransomware attacks, and phishing scams as they digitise their operations and collect sensitive customer information. Protecting against cyber threats requires robust cybersecurity measures, employee training, and proactive risk management strategies.*

Participant 13: *Small businesses must ensure that their digital infrastructure and technologies are scalable and flexible enough to accommodate growth and adapt to changing business needs. Scalability challenges may arise from inadequate planning, technical limitations, or reliance on rigid technology solutions.*

Participant 27: *Choosing the right technology vendors and partners is crucial for small businesses undergoing digital transformation. However, selecting and managing vendors can be challenging, as small businesses must evaluate factors such as cost, reliability, support, and compatibility with existing systems.*

Most small business owners and employees lack the necessary digital skills and knowledge to effectively implement and leverage digital technologies. Bridging the digital skills gap through training and upskilling initiatives is crucial for ensuring the success of digital transformation efforts. Resistance to change is a common challenge encountered during digital transformation, as employees may be hesitant to adopt new technologies or processes. Overcoming resistance to change requires effective communication, leadership buy-in, and employee engagement throughout the transformation journey. By addressing these challenges proactively, small businesses can maximise the benefits of digital transformation and position themselves for long-term success in the digital age.

Opportunities Arising from Digital Transformation for Small Businesses

This section presents the findings regarding the opportunities arising from digital transformation for small businesses to expand their market reach globally through online channels and platforms. The findings of the study highlight the transformative potential of digital transformation in unlocking growth opportunities for small businesses, the following participant 5, 8, 10, and 25 mentioned that:

Participant 5: *Digital transformation enables small businesses to expand their market reach beyond geographical boundaries through e-commerce platforms, online marketplaces, and digital marketing channels, small businesses can access a global customer base and compete on a level playing field with larger enterprises.*

Participant 8: *Digital technologies offer small businesses opportunities to engage with customers in new and innovative ways in leveraging social media, email marketing, and personalised messaging, businesses can build stronger relationships with customers, foster brand loyalty, and drive repeat business.*

Participant 10: *Digital transformation provides small businesses with access to vast amounts of data that can be leveraged for strategic decision-making in analysing customer data, market trends, and operational metrics, businesses can gain valuable insights, identify opportunities for growth, and make informed business decisions.*

Participant 25: *Digital transformation opens doors for small businesses to access advanced technologies and capabilities that were once out of reach through partnerships with technology vendors, startups, and industry experts, small businesses can leverage cutting-edge technologies such as cloud computing, blockchain, and virtual reality to drive innovation and competitive advantage.*

Most of the Cases highlights that digital transformation provides small businesses with deeper insights into customer behaviour, preferences, and purchasing patterns by analysing customer data from various sources, businesses can segment their customer base, personalise marketing campaigns, and tailor products and services to meet specific customer needs. The findings of the study shows some of the opportunities arising from digital transformation for small businesses by embracing digital technologies and leveraging these opportunities effectively, small businesses can drive innovation, increase competitiveness, and achieve sustainable growth in today's digital economy.

DISCUSSION

Discussion of Findings on Strategies for Digital Transformation in Small Businesses

The process of digital transformation in small businesses involves the adoption and integration of digital technologies to improve operations, enhance customer experiences, and drive growth. This discussion will delve into the findings regarding the strategies for digital transformation in small businesses, highlighting key insights and implications for implementation. Kraus et al. (2022) note that the findings suggest that small businesses that define clear objectives and goals for digital transformation are more likely to succeed in their initiatives, clarity in objectives helps businesses prioritise digital investments, align resources effectively, and measure the impact of digital initiatives on business performance. Research findings indicate that cloud computing adoption is a prevalent strategy among small businesses undergoing digital transformation (Winarsih et al., 2021). Cloud computing enables small businesses to access advanced technologies and resources without the need for significant upfront investment in hardware or infrastructure. Moreover, cloud-based solutions facilitate remote collaboration, data accessibility, and seamless integration across business functions, driving operational efficiency and agility.

Winarsih et al. (2021) indicates that the findings indicate a growing reliance on data analytics among small businesses to inform decision-making and drive strategic initiatives. Zoppelletto et al. (2020) recognises that data analytics tools enable businesses to gain actionable insights from vast amounts of data, identify trends, and anticipate market dynamics. By leveraging data analytics, small businesses can optimise marketing strategies, improve operational efficiency, and identify new revenue opportunities. Hanelt et al. (2021) indicates that the findings underscore the importance of mobile technology in driving digital transformation for small businesses. With the proliferation of mobile devices and the increasing preference for mobile interactions among consumers, small businesses must optimise their digital presence for mobile platforms. Mobile-friendly websites, mobile apps, and location-based marketing strategies enable businesses to engage with customers on-the-go, deliver personalised experiences, and enhance accessibility (Klein & Todesco, 2021). Small businesses that embrace mobile technology can capitalise on emerging opportunities in the mobile-centric digital landscape (Chenet al., 2021).

Jones et al. (2021) claims that the findings on strategies for digital transformation in small businesses underscore the importance of clear objectives, cloud computing adoption, data analytics utilisation, and mobile technology integration. By embracing these strategies, small businesses can navigate the complexities of digital transformation, drive innovation, and achieve sustainable growth in today's digital economy. However, successful digital transformation requires careful planning, strategic investments, and a commitment to continuous learning and adaptation to leverage the full potential of digital technologies for business success.

Discussion of Findings on Challenges Faced by Small Businesses in Digital Transformation

One of the primary challenges identified in the findings is resource constraints faced by small businesses. Limited budgets, lack of skilled personnel, and inadequate infrastructure often hinder small businesses' ability to invest in and implement digital technologies effectively. Small businesses must prioritise their digital investments and seek cost-effective solutions that align with their budgetary constraints. Troise, Corvello, Ghobadian and O'Regan (2022) indicates that collaboration with technology partners and leveraging government initiatives or grants can also help small businesses overcome resource limitations. Feroz et al. (2021) reveals that the findings highlight the digital skills gap as a significant barrier to successful digital transformation in small businesses. Many small business owners and employees lack the necessary expertise and training to leverage digital technologies effectively (Teng, Wu & Yang, 2022). Addressing the digital skills gap requires investment in training programmes, upskilling initiatives, and hiring or partnering with individuals with relevant technical knowledge. Small businesses can also leverage online resources, workshops, and community networks to enhance digital literacy among their workforce (Adedoyin & Soykan, 2023)

In conclusion, Bygstad, Øvrelid, Ludvigsen, and Dæhlen (2022) highlight that the findings on challenges faced by small businesses in digital transformation underscore the importance of addressing resource constraints, bridging the digital skills gap, overcoming resistance to change, simplifying integration complexities, mitigating cybersecurity risks, ensuring scalability and flexibility, and addressing data privacy and compliance concerns. Feroz, Zo and Chiravuri (2021) recognise that the proactively addressing these challenges, small businesses can navigate the complexities of digital transformation, unlock growth opportunities, and position themselves for long-term success in the digital economy. Collaboration with industry partners, leveraging external expertise, and fostering a culture of innovation and adaptability are essential for overcoming challenges and driving successful digital transformation initiatives in small businesses.

Opportunities Arising from Digital Transformation for Small Businesses

Digital transformation presents small businesses with a myriad of opportunities to innovate, grow, and thrive in today's digital economy. Kraus, Durst, Ferreira, Veiga, Kailer and Weinmann (2022) indicates that the findings on the opportunities arising from digital transformation for small businesses, highlighting key insights and implications for leveraging these opportunities effectively. Appio, Frattini, Petruzzelli and Neirotti (2021) note that one of the prominent opportunities identified in the findings is the ability of digital transformation to facilitate global reach and market expansion for small businesses. Through digital channels such as e-commerce platforms, social media, and online marketplaces, small businesses can transcend geographical boundaries and tap into international markets (Khurana et al., 2022). Digital technologies enable small businesses to reach a diverse customer base, explore new revenue streams, and capitalise on emerging market opportunities beyond their local vicinity (Nadkarni & Prügl, 2021).

Digital transformation empowers small businesses to enhance customer engagement and deliver personalised experiences tailored to individual preferences (Perkin & Abraham, 2021). Through data analytics, small businesses can gather insights into customer behaviour, preferences, and purchasing patterns. Leveraging this data, businesses can segment their customer base, personalise marketing campaigns, and offer targeted product recommendations. By fostering deeper connections with customers and addressing their unique needs, small businesses can build brand loyalty, drive repeat business, and differentiate themselves in the competitive marketplace. Klein., & Todesco (2021) support the view that the findings on opportunities arising from digital transformation for small businesses underscore the transformative potential of digital technologies in driving innovation, growth, and competitiveness. By embracing digital transformation and leveraging these opportunities effectively, small businesses can expand their market reach, enhance customer engagement, improve operational efficiency, make data-driven decisions, foster agility, and access advanced technologies (Soluk & Kammerlander, 2021). However, realising these opportunities requires strategic vision, investment in digital capabilities, and a willingness to adapt to change. Small businesses that proactively embrace digital transformation stand to gain a significant competitive advantage and position themselves for long-term success in the digital age.

CONCLUSION

In conclusion, digital transformation presents both opportunities and challenges for small businesses in their journey towards sustainability. By embracing digital technologies, fostering innovation, and adopting sustainable practices, small businesses can enhance their resilience, competitiveness, and long-term viability in today's digital economy. However, addressing barriers such as financial constraints, skills gaps, and regulatory compliance requires concerted efforts from stakeholders across the public and private sectors. Ultimately, small businesses play a crucial role in driving economic growth, social development, and environmental stewardship, and digital transformation serves as a catalyst for achieving sustainable outcomes in the digital age.

IMPLICATIONS OF FINDINGS FOR SMALL BUSINESSES

The implications of the findings underscore the importance of strategic planning and investment in digital transformation initiatives for small businesses. Small businesses need to prioritise digital capabilities, sustainability practices, and stakeholder engagement to remain competitive and resilient in today's rapidly evolving business landscape. The findings also highlight the need for tailored strategies and solutions that address the unique challenges and opportunities faced by small businesses in different industries and contexts. Small businesses can leverage digital technologies to improve operational efficiency, enhance customer engagement, and drive innovation while promoting sustainability principles such as resource efficiency, social responsibility, and ethical business practices. However, they must overcome challenges such as financial constraints, skills gaps, and integration issues to realise the full potential of digital transformation for sustainability.

THEORETICAL CONTRIBUTIONS

The theoretical contributions of this study lie in advancing our understanding of the role of digital transformation in small business sustainability from a multidisciplinary perspective. Drawing on theories such as resource-based view, institutional theory, and sustainability frameworks, this study sheds light on the mechanisms through which digital transformation influences small business performance and sustainability outcomes. The findings contribute to theoretical debates on digitalisation, sustainability, and organisational change, informing future research and scholarship in this field.

RECOMMENDATIONS FOR SMALL BUSINESS OWNERS

Based on the findings, practical recommendations for small business owners include:

1. Prioritise investments in digital infrastructure, talent development, and innovation to drive sustainable growth and competitiveness.
2. Foster a culture of continuous learning, experimentation, and collaboration to adapt to digital disruption and seize new opportunities.
3. Embrace sustainability principles such as energy efficiency, waste reduction, and social responsibility as integral components of business strategy and operations.
4. Engage with stakeholders, including employees, customers, suppliers, and communities, to co-create value and build trust in the digital era.

To Policymakers

Based on the findings, recommendations for policymakers and practitioners include:

1. Developing supportive policies and programmes to facilitate digital adoption and sustainability practices in small businesses, including access to funding, training, and technical assistance.
2. Promoting collaboration among government agencies, industry associations, and academic institutions to create an enabling ecosystem for digital transformation and sustainability.
3. Encouraging small businesses to adopt best practices, standards, and certifications related to digitalisation and sustainability to enhance credibility, transparency, and market competitiveness.

FUTURE RESEARCH DIRECTIONS

Future research directions include:

1. Further exploration of the long-term impacts of digital transformation on small business sustainability across different industries and contexts.
2. Investigation of emerging digital technologies and their implications for small business strategy, innovation, and sustainability.
3. Examination of the role of policy interventions, ecosystem dynamics, and industry collaborations in fostering digital transformation and sustainability in small businesses.
4. Evaluation of the effectiveness of capacity-building programmes, support mechanisms, and best practices in promoting digitalisation and sustainability in small businesses.

LIMITATIONS OF THE STUDY

The limitations of the study impact the validity and generalisability was based on the sample size of small businesses interviewed was limited, affecting the representativeness and reliability of the results. Participants' responses to interviews may be subject to self-reporting bias, leading to overestimation or underestimation of digital transformation and sustainability practices. The study's findings may be influenced by contextual factors such as industry dynamics, market conditions, and regulatory environments, limiting their applicability to different contexts. The study's scope and timeframe may impose constraints on data collection and analysis, potentially overlooking nuanced aspects of digital transformation and sustainability. Despite these limitations, the study aims to provide valuable insights into the complex interplay between digital transformation and small business sustainability, informing future research, policy decisions, and practical interventions in this domain.

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SUSTAINABLE STRATEGIC MANAGEMENT: INTEGRATING ESG FACTORS INTO BUSINESS STRATEGIES IN SOUTH AFRICA

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Abstract

This paper explores the imperative of integrating environmental, social and governance (ESG) factors into business strategies for sustainable strategic management in South Africa. The study underscores the significance of aligning organisational objectives with broader societal and environmental goals to enhance long-term competitiveness and resilience. Through a systematic literature review, this study examines existing research on sustainable strategic management, ESG integration, and their impact on organisational performance. The study will employees case studies and empirical evidence are analysed to identify best practices and challenges associated with incorporating ESG considerations into business strategies. The findings emphasise the multifaceted benefits of integrating ESG factors into business strategies. Effective ESG integration enhances risk management by identifying and mitigating environmental, social, and governance risks. The study fosters innovation by promoting sustainability-driven product development and process improvement. Moreover, it will strengthen stakeholder relationships, builds corporate reputation, and mitigates regulatory risks. However, challenges such as standardising measurement and reporting, aligning stakeholder interests, and transforming organisational culture present significant barriers to implementation. Sustainable strategic management, grounded in ESG principles, is essential for organisational resilience and value creation. To successfully integrate ESG factors into business strategies, organisations must prioritise leadership commitment, stakeholder engagement, transparency, and continuous improvement. It is recommended that organisations adopt standardised ESG reporting frameworks, invest in stakeholder dialogue, and embed sustainability principles into corporate governance structures to drive meaningful change.

Keywords: Sustainable strategic management, ESG integration, Organisational resilience, stakeholder engagement, corporate governance

INTRODUCTION

Sustainable Strategic Management (SSM) has gained significant traction globally as businesses recognise the importance of integrating environmental, social and governance (ESG) factors into their strategies (Shaikh, 2022). In South Africa, a country marked by a unique socio-economic landscape, the integration of ESG factors into business strategies holds particular significance. The integration of

Environmental, Social, and Governance (ESG) factors into business strategies has become increasingly imperative in the contemporary global business landscape (Abhayawansa & Mooneeapen, 2022). This introduction provides an overview of the concept of sustainable strategic management and explores its significance in the context of South Africa, a nation grappling with unique socio-economic and environmental challenges. The rationale behind integrating ESG factors into business strategies, examining the current state of sustainability practices in South Africa, and outlining the objectives and structure of this review, this introduction sets the stage for a comprehensive exploration of sustainable strategic management in the South African context. In recent decades, there has been a paradigm shift in the way businesses perceive their role in society and the environment are no longer confined to profit maximisation alone, organisations are increasingly recognising the need to address environmental stewardship, social equity, and corporate governance in their operations (Liang, Lee & Jung, 2022). This shift has given rise to the concept of sustainable strategic management, which entails integrating ESG factors into the core decision-making processes of businesses to create long-term value for stakeholders while mitigating risks and enhancing resilience.

South Africa, with its rich natural resources, diverse society, and complex history, presents a compelling case study for examining the implementation of sustainable strategic management practices. The country grapples with significant socio-economic challenges, including poverty, inequality, and unemployment, alongside pressing environmental issues such as climate change, water scarcity, and pollution. Against this backdrop, businesses in South Africa are under increasing pressure to adopt sustainable practices that not only drive economic growth but also contribute to societal development and environmental conservation (Pratama & Heikal, 2024). The integration of ESG factors into business strategies in South Africa is influenced by a myriad of factors, including regulatory frameworks, stakeholder expectations, market dynamics, and the evolving socio-political landscape (Neri, 2021). Legislation such as the Companies Act and the Broad-Based Black Economic Empowerment (B-BBEE) Act imposes obligations on companies to disclose their non-financial performance, including their environmental and social impacts, and to promote inclusive economic growth (Patil, Ghisellini & Ramakrishna, 2021). Additionally, South African businesses face growing demands from investors, customers, employees, and civil society organisations to demonstrate their commitment to ESG principles (Erokhina, 2022).

PROBLEM STATEMENT

Despite growing recognition of the importance of environmental, social, and governance (ESG) factors in business decision-making globally, South African businesses still face significant challenges in effectively integrating these factors into their strategic management processes. While there is increasing pressure from stakeholders and regulatory bodies to prioritise sustainability, the implementation of sustainable strategic management practices remains limited. Scholars indicated that many South African businesses have yet to fully incorporate ESG considerations into their strategic decision-making processes, leading to missed opportunities for sustainable value creation and risk mitigation (Mans-Kemp & Van der Lugt, 2020; Iliescu & Voicu, 2021; Marais, van der Lugt & Mans-

Kemp, 2022; Johnson, Erasmus & Mans-Kemp, 2019). Various obstacles, including cultural norms, institutional frameworks, organisational structures, and resource constraints, impede the effective integration of ESG factors into business strategies. These barriers prevent businesses from fully realising the potential benefits of sustainable strategic management. Many South African businesses lack clear guidance and best practices for integrating ESG factors into their strategic management processes. This absence of standardised approaches makes it challenging for organisations to navigate the complexities of sustainable strategic management effectively. While there is a growing awareness of the importance of sustainability, businesses require actionable strategies and tools to overcome barriers and enhance the integration of ESG factors into their business strategies. Practical solutions tailored to the South African context are essential for driving meaningful progress in sustainable strategic management.

PURPOSE OF THE RESEARCH

The purpose of this research is to explore the integration of ESG factors into business strategies and its implications for sustainable strategic management. Specifically, the research seeks to achieve the following objectives:

1. To identify challenges and barriers to ESG integration and explore strategies for overcoming them.
2. To highlight the economic, social, and environmental benefits of ESG integration and the opportunities it presents for businesses.

LITERATURE REVIEW

This literature review seeks to provide a comprehensive analysis of the current state of sustainable strategic management in South Africa, focusing on how businesses are integrating ESG factors into their strategies to address pressing socio-environmental challenges while pursuing economic objectives. The existing research, frameworks, and case studies, this review aim to identify key trends, challenges, and opportunities facing South African businesses in the realm of sustainability. Furthermore, the study aims to highlight best practices and innovative approaches adopted by leading companies in the region, offering insights for researchers, policymakers, and practitioners seeking to advance sustainable business practices in South Africa and beyond. In the subsequent sections, this review will investigate into the regulatory landscape and policy frameworks shaping sustainable strategic management in South Africa, examine the drivers and challenges of ESG integration for businesses operating in the region, and showcase best practices through case studies and empirical evidence.

South Africa's history of apartheid and subsequent transition to democracy has shaped its approach to sustainable development and strategic management. Numerous studies have highlighted the positive correlation between ESG factors and business performance (Li, Wang, Sueyoshi & Wang, 2021; Gebhardt, Thun, Seefloth & Zülch, 2023; Ahmad, Yaqub & Lee, 2024). In recent years, there has been a growing recognition among businesses worldwide that sustainable strategic management, which integrates Environmental, Social, and Governance (ESG) factors into business strategies, is crucial for long-term success and resilience (Ronalter, Bernardo & Romaní, 2023). Neri (2021) acknowledgement the interconnectedness between business operations and environmental, social, and governance issues, as well as increasing stakeholder demands for corporate responsibility and accountability. South Africa, as an emerging economy with its unique set of challenges and opportunities, presents an intriguing context for studying the adoption and implementation of sustainable strategic management practices (Johnson, Erasmus & Mans-Kemp, 2019). This literature review aims to provide a comprehensive overview of the existing research on how South African businesses are integrating ESG factors into their strategies, the challenges they face, and the opportunities they pursue in the pursuit of sustainable development. In the South African context, research indicates that companies that effectively integrate ESG considerations into their strategies tend to outperform their peers in the long term. South Africa has a well-developed regulatory framework governing corporate governance and sustainability reporting (Iliescu & Voicu, 2021). However, challenges remain in ensuring compliance and fostering a culture of accountability among businesses.

Challenges and Opportunities

Despite the progress made in integrating ESG factors into business strategies, South African companies face several challenges in implementing sustainable strategic management practices. These include limited access to capital for sustainability initiatives, competing priorities within organisations, inadequate ESG data and metrics, and a lack of awareness and understanding of ESG issues among stakeholders. Additionally, companies operating in sectors such as mining, energy, and agriculture face specific challenges related to resource depletion, pollution, and social conflicts (Spataro, Quirici & Iermano, 2023). However, amidst these challenges, there are also significant opportunities for companies to drive innovation, enhance their competitiveness, and create shared value by adopting sustainable business models. Mans-Kemp and Van der Lugt (2020) claim that companies that effectively integrate ESG factors into their strategies can achieve cost savings, reduce risks, enhance their reputation, and access new markets and investment opportunities.

South African companies have made significant strides in adopting sustainable strategic management practices, driven by regulatory requirements, stakeholder pressures, and market dynamics (Di Simone, Petracci & Piva, 2022). Several South African companies have emerged as leaders in sustainable strategic management, demonstrating best practices and innovative approaches that others can learn from (REF). For example, companies in the renewable energy sector have capitalised on South Africa's abundant renewable resources and government incentives to develop clean energy projects that contribute to both environmental and social goals. Similarly, companies in the financial services sector have integrated ESG criteria into their investment decisions and lending practices, aligning their portfolios with sustainability objectives (Yu, Wu, Chen, Wang & Mardani, 2023). Additionally, companies in the agribusiness sector have implemented sustainable farming practices, such as organic farming and conservation agriculture, to minimise their environmental footprint and promote food security.

Importance of ESG Factors in Business Strategies

Environmental, Social, and Governance (ESG) factors have emerged as key drivers of sustainable strategic management. ESG factors refer to a set of criteria used to evaluate a company's performance and impact on society and the environment (R Purwanti & Muafiqie, 2023). Environmental criteria assess a company's environmental footprint, such as its carbon emissions, resource usage, and pollution levels (Ronalter et al., 2023). Social criteria evaluate a company's relationships with its employees, customers, communities, and other stakeholders, including issues related to labour practices, human rights, diversity and inclusion, and community development (Shaikh, 2022). The governance criteria focus on the quality of corporate governance structures and practices, including board composition, executive compensation, transparency, and ethical business conduct (Abhayawansa & Mooneeapen, 2022). Integrating ESG factors into business strategies is essential for several reasons. First, ESG factors are increasingly seen as material risks and opportunities that can affect a company's financial performance and long-term sustainability (Corvino, Doni & Bianchi Martini, 2020).

Crawford and Nilsson (2023) comment that investors, customers, regulators, and other stakeholders are placing greater emphasis on ESG considerations when making investment decisions, purchasing products and services, and assessing corporate reputations. Companies that effectively manage ESG risks and capitalise on ESG opportunities are better positioned to create long-term value for shareholders, mitigate financial and reputational risks, and enhance their competitive advantage in the marketplace (Li et al., 2021). Second, integrating ESG factors into business strategies can lead to improved operational efficiency, innovation, and resilience (Taplin, 2021). Accordingly, to Gebhardt, Thun, Seefloth and Zülch (2023) states that companies can reduce resource consumption, optimise supply chains, minimise waste and emissions, and develop new products and services that meet evolving customer needs and preferences. Moreover, companies that demonstrate strong governance practices and ethical leadership are more likely to foster trust and credibility with stakeholders, which can enhance brand loyalty, attract top talent, and drive long-term shareholder value (Kluza, Ziolo & Spoz, 2021). Finally, incorporating ESG factors into business strategies is increasingly being mandated by regulators and policymakers around the world. Governments are enacting laws and regulations aimed at promoting sustainable development, combating climate change, and holding companies accountable for their social and environmental impacts (Ahmad, Yaqub & Lee, 2024).

RESEARCH METHODOLOGY

A systematic literature review approach was used for this study to explores the imperative of integrating Environmental, Social, and Governance (ESG) factors into business strategies for sustainable strategic management in South Africa. PRISMA framework was applied to perform the literature review analysis. Scopus and Google scholar database were used to search for appropriate journal sources, which applied to unpack in the study objectives of this study. The definition of the search terms served as the basis for the research. The adopted strategy to search and select the articles included in the review was defined using the following queries were entered: TITLE-ABS-KEY

(‘Environmental, Social, and Governance (ESG) AND ‘Sustainable Strategic Management*’). The search string was restricted to Title, abstract and keywords. Figure 1 shows the screen shot for the search query.

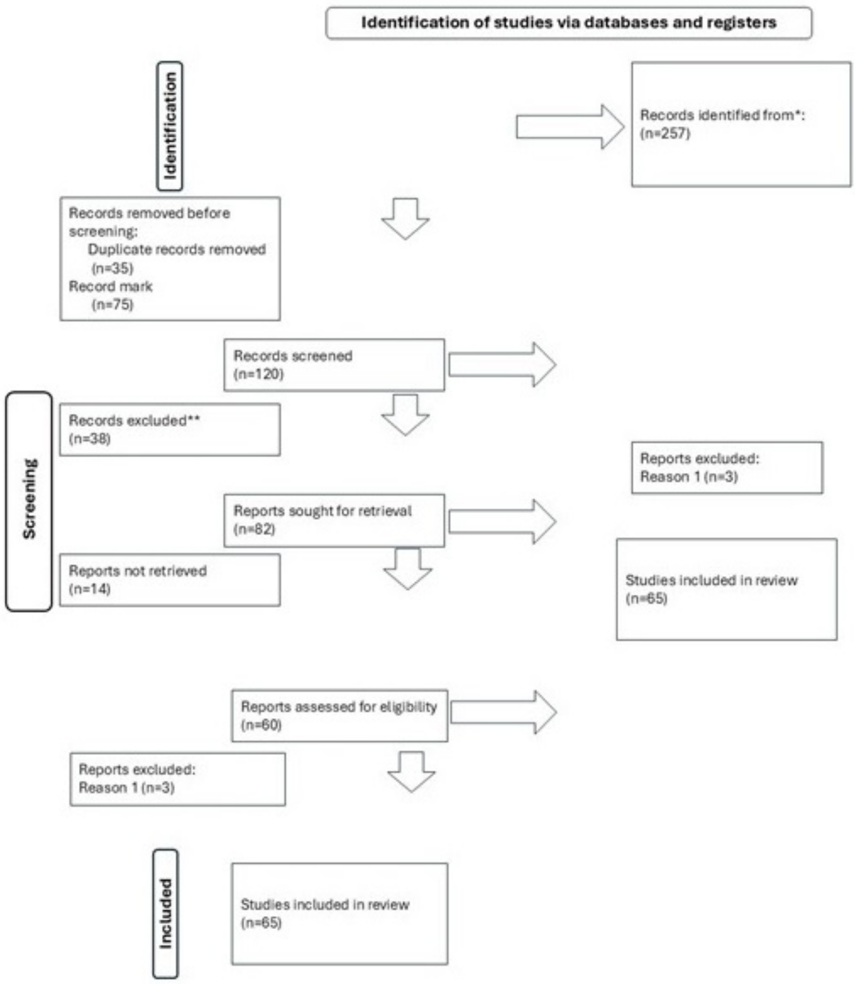

Figure 1: Systematic review process

This study decided to adopt some inclusion criteria to refine the sample. Only articles and reviews, papers written in English and only articles and reviews published between 2009 and 2023. The search was from all subject area documents of type- Article, review and article in the press were selected. Articles with no access to their full text were excluded. Initially, 287 articles were found in the Scopus database. The duplicate articles and other irrelevant articles were removed, which led to only 82 articles left. Now 82 articles were screened thoroughly by the authors, and 65 papers were selected for the study, which aligns with the research questions. Figure 2 shows the systematic literature review process, which was followed.

RESULTS

From the PRISMA framework that was applied to perform the systematic review analysis, 287 documents were identified, which was selected in the range of 2009 to 2023. In the year 2023, forty-one articles were relating to the topic under the study was published and is the highest since 2009. Figure 2 shows the results.

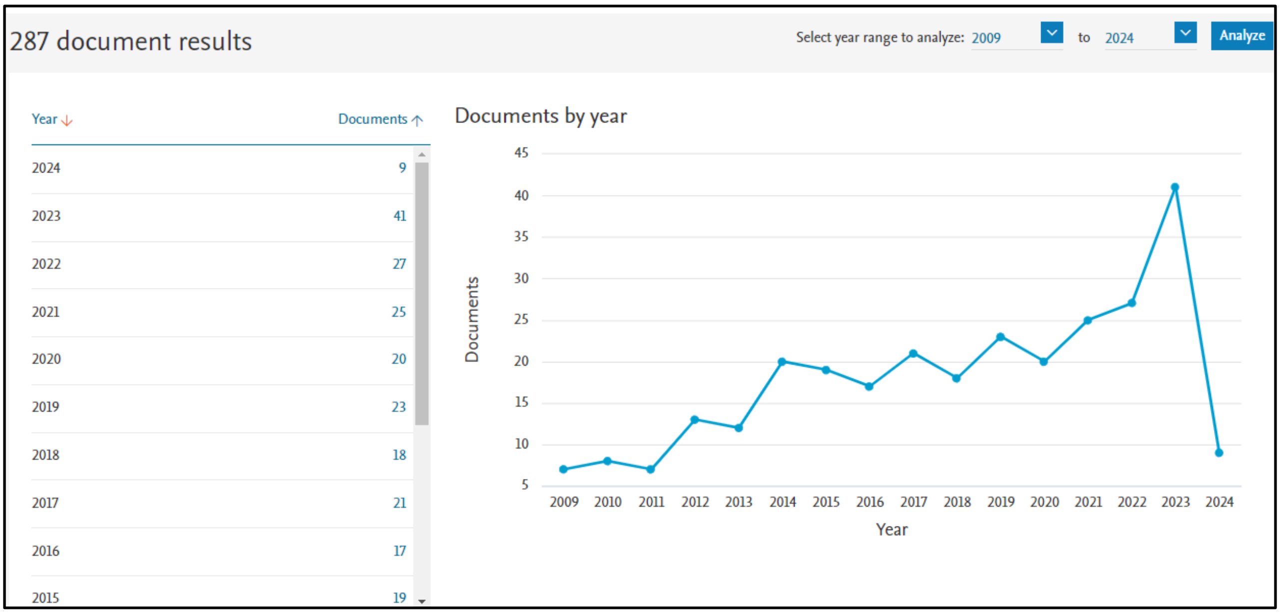

Figure 2: Articles

Figure 4 shows that the subject area with the number of publications on the topic was in Business, management and accounting with 229 documents followed by Economics, Economentrics and Finance with 143 documents with the least being in the subject area of Agricultural and Biological Sciences and Energy with 5 documents.

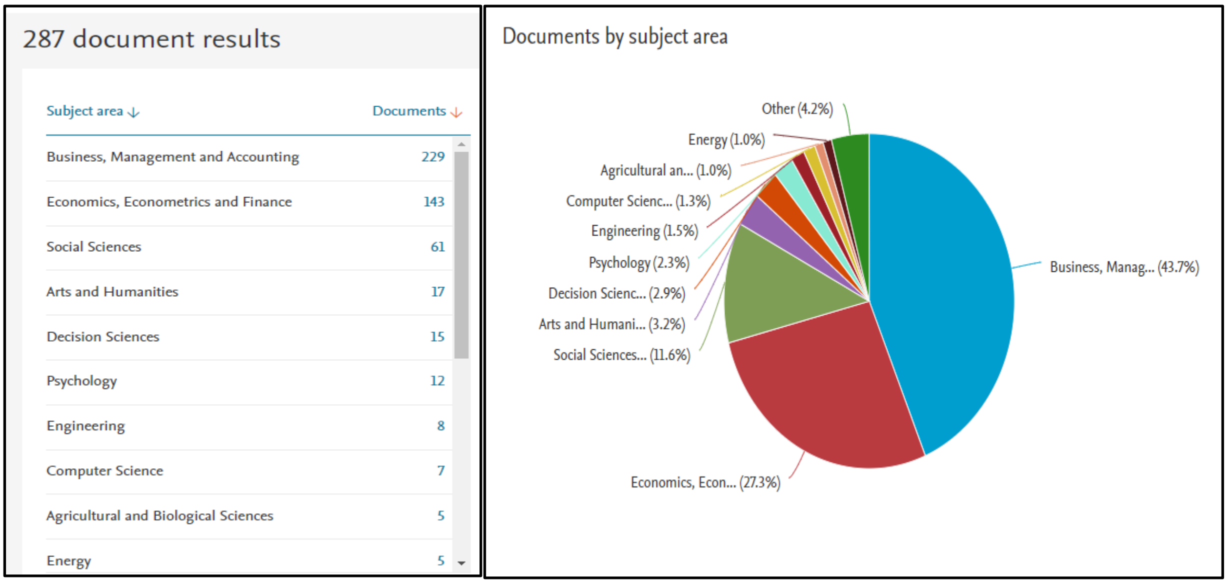

Figure 3: Subject area

The result from this review provides a comprehensive overview of the intricate relationship between of integrating Environmental, Social, and Governance (ESG) factors into business strategies for sustainable strategic management in South Africa. Several key themes emerge from the literature, which warrant further discussion and exploration. The influence of integrating Environmental, Social, and Governance (ESG) factors into business strategies for sustainable strategic management in South Africa, has been a subject of extensive research due to its distinctive complexities (Patil et al., 2021). Therefore, integrating ESG considerations into business strategies is not only a matter of ethical responsibility but also a legal and regulatory imperative.

DISCUSSION

The findings of the study indicated that integrating Environmental, Social, and Governance (ESG) factors into business strategies has become increasingly critical for organisations worldwide, and South Africa is no exception. The concept of sustainable strategic management (SSM) emphasises the importance of incorporating sustainability principles into every aspect of business decision-making, from operations to corporate governance.

Resilience to Global Challenges

The review resonates that the world grapples with pressing global challenges like climate change, resource scarcity, and social inequality, businesses in South Africa must adapt to remain competitive and sustainable. Therefore, integrating ESG considerations into strategic management equips companies to anticipate and respond to these challenges effectively. South Africa, with its rich natural resources and diverse social landscape, faces unique challenges and opportunities in adopting sustainable business practices. The country has a history of grappling with issues such as environmental degradation, social inequality, and governance issues, which makes the integration of ESG factors into business strategies all the more imperative (Kluza et al., 2021). Corvino et al. (2020) found out that the significant aspect of this integration is the shift towards a more holistic approach to value creation. Traditionally, businesses have focused primarily on financial performance. Still, with the growing recognition of the interconnectedness between financial, environmental, and social factors, there's a realisation that sustainable value creation requires considering a broader set of stakeholders and their interests. Taplin (2021) established that implementing ESG factors into business strategies in South Africa involves several key steps. Firstly, it requires a deep understanding of the local context, including regulatory frameworks, cultural nuances, and stakeholder expectations. Secondly, it demands a commitment from top management to embed sustainability principles into the organisation's DNA, from goal setting to performance evaluation. Thirdly, it necessitates collaboration across sectors and industries to drive systemic change and address complex sustainability challenges collectively.

Importance of ESG Factors in Business Strategies

Regulatory Compliance and Market Access

Abhayawansa & Mooneeapen (2022) demonstrates the commitment to ESG principles fosters trust among stakeholders, including customers, employees, investors, and communities. In South Africa, where historical inequalities and social tensions persist, businesses that prioritise social responsibility and environmental stewardship can enhance their reputation and legitimacy. This, in turn, can lead to greater brand loyalty, investor confidence, and social licence to operate. However, integrating ESG factors into business strategies helps companies navigate evolving regulatory landscapes and market expectations (Corvino, Doni & Bianchi Martini, 2020). South Africa has implemented various ESG-related regulations and frameworks, such as the King Code of Corporate Governance and carbon pricing mechanisms. Adhering to these standards not only ensures compliance but also facilitates access to capital, markets, and partnerships, both domestically and internationally.

Moreover, integrating ESG factors into business strategies presents numerous benefits for organisations operating in South Africa. These outcomes resonate in enhancing risk management, improved reputation and brand loyalty, access to new markets and investment opportunities, and ultimately, long-term resilience and competitiveness in a rapidly evolving global landscape (Crawford & Nilsson 2023). However, it is important to acknowledge that there are also challenges associated with this transition. These may include resistance to change within organisations, resource constraints, lack of standardised ESG metrics, and the need for greater transparency and accountability (Li et al., 2021). Overall, the integration of ESG factors into business strategies in South Africa represents a transformative journey towards more sustainable and responsible business practices. By aligning economic prosperity with environmental stewardship and social progress, organisations can contribute to building a more inclusive, equitable, and resilient society for future generations.

CONCLUSION

In conclusion, the literature reviewed underscores the critical importance of sustainable strategic management and the integration of ESG factors into business strategies in South Africa. By aligning with national development objectives, complying with regulatory requirements, engaging stakeholders, and addressing sector-specific challenges, businesses can contribute to sustainable development while enhancing their long-term competitiveness and resilience. However, continued research, policy support, and industry collaboration are essential to overcoming barriers and scaling up sustainable practices across the South African business landscape.

IMPLICATIONS AND PRACTICAL FOR THE STUDY

The research contributes to theoretical understanding by providing insights into the drivers, mechanisms, and outcomes of ESG integration in business strategies. The research has practical implications for businesses, policymakers, investors, and other stakeholders by highlighting the economic, social, and environmental benefits of ESG integration. It offers recommendations for businesses to enhance their sustainability performance, engage stakeholders effectively, and capitalise on emerging trends in sustainable strategic management. Managers leverage the research findings to develop and implement ESG strategies that align with organisational goals, enhance competitive positioning, and create long-term value for stakeholders. The research provides actionable insights for integrating ESG considerations into core business processes, fostering stakeholder engagement, and driving innovation and resilience.

RECOMMENDATIONS FOR BUSINESSES

To navigate the evolving landscape of sustainable strategic management and capitalise on emerging trends, businesses can consider the following recommendations:

1. Businesses should prioritise long-term sustainability over short-term financial gains by integrating ESG considerations into their strategic decision-making processes. This involves aligning business objectives with environmental, social, and governance goals, investing in sustainable innovation, and fostering a culture of corporate responsibility and ethics.
2. Businesses should engage stakeholders proactively and transparently to understand their expectations, concerns, and priorities regarding ESG issues. This includes building trust with stakeholders, fostering dialogue and collaboration, and incorporating stakeholder feedback into decision-making processes to ensure alignment with broader societal goals and values.
3. Businesses should embrace innovation and technology as enablers of sustainable strategic management. This involves leveraging digital solutions, data analytics, and emerging technologies to enhance transparency, efficiency, and accountability in supply chains, as well as drive sustainable product development, energy management, and waste reduction initiatives.
4. Businesses should invest in employee training and development to build organisational capacity and expertise in sustainable strategic management. This includes providing education, training, and professional development opportunities to employees at all levels of the organisation to enhance their understanding of ESG issues, develop relevant skills, and drive meaningful change towards sustainability.

AREAS FOR FURTHER RESEARCH

Despite significant progress in the field of sustainable strategic management, several areas warrant further research to advance knowledge and practice. Further research is needed to examine the relationship between ESG integration and financial performance, including the long-term financial implications of sustainable business practices and the role of ESG factors in driving shareholder value and competitive advantage. Comparative analysis of existing ESG standards, frameworks, and reporting methodologies can help identify best practices, harmonise reporting requirements, and enhance the comparability and reliability of ESG data for investors, stakeholders, and decision-makers.

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THE RELATIONSHIP BETWEEN RISK AND FDI: THE CASE OF MAURITIUS

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Abstract

This study endeavours to shed light on the risk-FDI nexus for a small open country, Mauritius, through the combination of different types of risk (economic, financial and political). The principal component analysis (PCA) was first employed to generate a comprehensive country risk index for Mauritius. The risk and FDI nexus is explored using a dynamic time series approach and annual data (1980-2019). In particular, an autoregressive distributed lag (ARDL) model is used to capture this link in both the short run and long run. In the empirical literature, different approaches have been implemented in order to investigate the relationship between country risk and FDI and the results remained mixed at best. The findings from this analysis are expected to have important implications for policymakers in their quest to attract FDI in the country.

Keywords: FDI, country risk, financial risk, economic risk, political risk, Mauritius, ARDL

INTRODUCTION

The significance of foreign direct investment (FDI) in the past decades has greatly increased as it becomes a crucial tool in the promotion of economic growth for countries across the globe. Its significance has also created great concern among researchers wherein previous studies emphasised on the classical determinants of FDI and the identification of many factors were outlined; namely economic factors such as inflation, trade openness, volatility of exchange rate, country size as well as political factors (Wheeler, 1992; Seetanah, 2011; Workneh, 2014; Hammache et al., 2017; Makdissi, 2022).

Country risk can be defined as the inability of a country to attain its responsibilities and commitments due to the presence of any form of political risk, economic risk in the form of inflationary tendencies or exchange rate risk, financial risk or any form of risk, which creates a high uncertainty in the economic progress of a country (Elleuch, 2015). The different components of country risk in the context of Mauritius have not been explored properly and the construction of a composite country risk index for Mauritius consisting of different types of risk is not available as of now. Thus, the construction and analysis of such an index will be an interesting addition and useful for the analysis of the link and for future researchers.

The impact of political risk on FDI has been massively studied (Bouyahiaoui et al., 2017; Krifa-Scheider et al., 2010; Meyer et al., 2018; Bitar et al., 2019; Cieslik et al., 2018 and Salem et al., 2021, Rafat et al, 2019) rather than considering each and every component of country risk. This work proposes to analyse country risk as a whole, while including political, financial and economic factors. The study is expected to fill a contextual gap by analysing the hypothesised link at country level for the case of Mauritius, which is heavily dependent on FDI and external resources. The study supplements the literature by building a country risk index for Mauritius using the principal component analysis (PCA) together by implementing 15 indicators of financial, economic and political risk.

The paper is outlined as follows: Section 2 focuses on the theoretical and empirical literature review on the risk-FDI nexus, and the third section includes the methodology and the data used as well as the components taken for the risk indices and emphasises the econometric modelling adopted. Section 4 assesses the empirical approach, interprets the findings. Finally, a conclusion is provided with some fundamental recommendations.

LITERATURE REVIEW

Overview of FDI in Mauritius

The open economy nature of Mauritius and its reliance on international trade due to its limited resources makes it important to attract FDI in the country. The outbreak of the COVID-19 pandemic resulted in a situation of uncertainty internationally, where especially countries dependent on foreign investment were adversely affected. The measures taken in an attempt to limit the propagation of the virus including travel restrictions and lockdown caused a drop of $1 trillion in global FDI in 2020 (Koçak, 2022). A report from the United Nations Conference on Trade and Development (UNCTAD) Investment Report 2021 further added that FDI flows to Mauritius have drastically fallen from $ 471 million to $246 million. The greatest economic crisis triggered by the pandemic, followed by the depreciation of the Mauritian rupee further dampened the situation. The financial crisis followed by the fallout of the Ukrainian war hampered all efforts done in an attempt to boost the economies.

Theoretical Underpinnings

Theoretically speaking, it is expected to believe that a reduction of country risk should be increasing FDI flows. The country risk-FDI nexus is a fundamental study in order to successfully depict the real changes affecting FDI in these countries. In the empirical literature, different approaches have been implemented to investigate the connection between country risk and FDI. Some approaches concluded that FDI can be predicted by the level of country risk while others suggest that FDI can be influenced by a panoply of other factors. The main types of country risk, which will be assessed are political, financial and economic risks. The presence of risk in developing economies has been undeniable since the past decades, which makes these countries more fragile on an international level, thereby negatively impacting their investment climate. The following section provides an insight on some of the empirical work performed by previous researchers.

Table 1 summarises some of the empirical works performed related to the risk and its connection to FDI.

Table 1: Summary of selected empirical studies

Authors	Countries Investigated	Time Period	Brief Findings
Alon and Martin (1998)	Developing countries	1996	Political Risk impacts on the level of FDI.
Addison et al (2003)	Developing countries	1980s	Rate of inflation and level of indebtedness negatively affect FDI inflows.
Chowdhury (2005)	Chile, Thailand, Malaysia	1969-2000	There exists a bi-directional relationship between GDP Growth and FDI inflows.
Ayanwale (2007)	Nigeria	-	Political Stability has a positive influence on FDI inflows.
Musonera (2008)	SSA countries	1990-2002	Political Risk has a major impact on FDI.
Wyk et al. (2008)	Developing countries	1995-2003	It is concluded that political freedom is positively related to FDI inflow.
Ang (2009)	Malaysia	1965-2004	The results show that FDI and financial development are positively linked in the long run.
Krifa et al. (2010)	33 developing countries	1996-2008	The model reveals that FDI is highly dependent on the economic policies, level of good governance and socio-political stability.
Dutta (2011)	97 economies		Political risk negatively impacts on FDI inflows.
Sissani et al. (2014)	Algeria	1990-2012	Financial development and political risk impact on the level of FDI.
Hammache and Chebini (2017)	MENA region	1975-1999	Political risk impacts on FDI the most in OPEC countries while economic freedom is the most influential determinant of FDI in non-OPEC countries.
Ismail (2017)	MENA region		All the three types of risk impact on the level of FDI inflows in MENA Region.
Al-Gasaymeh, Almahadin et al. (2020)	20 emerging economies	2010-2020	The findings reveal that political risk negatively affects the level of FDI while economic freedom has a positive impact on FDI.
Rafat et al. (2019)	Iran	1985-2016	The paper uses the two stage least square regression and conclude that political risk negatively influences FDI.
Salem and Younis (2021)	Egypt	2005-2015	A multiple regression technique is used. The results confirm the significance of economic risk and political risk. However, financial risk is found to be insignificant in influencing FDI.
Gonchar et al. (2022)	Russia	2006-2016	MNCs are highly affected by variables such as law and order, socio-economic conditions and military tensions.

Authors	Countries Investigated	Time Period	Brief Findings
Salehnia et al. (2019)	MENA region	2000-2019	The findings explain that all three risk factors influence FDI in MENA countries with Economic Risk being the most influential.
Bouyahiaoui et al. (2017)	MENA region	2000-2015	Political risk variables influence FDI the most.
Bitar et al. (2019)	Lebanon	2008-2018	The paper reveals the existence of causality between Political risk factor and FDI.
Cieslik and Goczek (2018)	142 countries	1994-2014	A GMM system is used; corruption being a component of political risk influences FDI.
Yasuda and Kotabe (2021)	35 countries	1992-2007	MNCs conclude that a lower level of country risk would enhance investment activities.

A review of the selected studies shows that more emphasis was made on the assessment of political risk, instead of emphasising on different types of risk. Therefore, against this backdrop, we examine the effect of country risk on FDI inflows.

METHODOLOGY

Building of the Country Risk Index

The country risk index has been constructed, comprising of the financial and economic and political risk index. All the indices have been built through several components brought forward by the ICRG dataset and as the availability of data. The data is then normalised while using the min-max normalisation technique (commonly referred as feature scaling). The normalised data is then imported into EViews through principal component analysis (PCA) where specific eigenvalues have been assigned to each risk index. Each eigenvalue has been squared to obtain the assigned weights with a sum of 1.

From the PCA, the weights assigned for each individual risk index are as follows:

Table 2: Subcomponents of index

Financial Risk Index	Economic Risk Index	Political Risk Index
Debt Service as a % of Exports of Goods and Services (0.151)	GDP per capita (0.270)	Voice and Accountability (0.129)
Value of Exports in the Balance of Payment (0.240)	Budget Balance as a % of GDP (0.234)	Control of Corruption (0.147)
Total reserves in months of imports (0.102)	Annual Consumer Price Index (0.126)	Political Stability and Absence of Violence (0.076)
Exchange debt stocks as a % of Gross National Income (0.255)	Annual GDP Deflator (0.081)	Regulatory Quality (0.332)
Foreign Debts as a % of GDP (0.251)	Current Account Balance as a % of GDP (0.289)	Government Military Expenditure % of GDP (0.3156)

We then construct the country risk index with weights of 0.261, 0.382 and 0.357 assigned to political risk, economic risk and financial risk index respectively. The indices range from 0 to 1. From the result obtained from the PCA, it is outlined that the financial risk index was relatively higher as compared to the other risk indices during the outbreak of the COVID-19 (2019-2021). The country risk index has been constructed for the period of 1980-2022.

Table 3: Risk indices

Year	Financial Risk Index	Economic Risk Index	Political Risk Index	Country Risk Index
1980	**0.076**	**0.461**	**0.611**	**0.363**
1981	**0.127**	**0.595**	**0.564**	**0.420**
1982	**0.172**	**0.600**	**0.333**	**0.377**
1983	**0.184**	**0.458**	**0.331**	**0.327**
1984	**0.215**	**0.550**	**0.290**	**0.362**
1985	**0.237**	**0.613**	**0.111**	**0.348**
1986	**0.174**	**0.687**	**0.180**	**0.371**
1987	**0.168**	**0.671**	**0.190**	**0.366**
1988	**0.181**	**0.638**	**0.308**	**0.389**
1989	**0.177**	**0.595**	**0.475**	**0.414**
1990	**0.174**	**0.662**	**0.533**	**0.454**
1991	**0.193**	**0.563**	**0.524**	**0.421**
1992	**0.170**	**0.583**	**0.532**	**0.422**
1993	**0.165**	**0.591**	**0.475**	**0.409**
1994	**0.176**	**0.521**	**0.435**	**0.376**
1995	**0.198**	**0.543**	**0.412**	**0.386**
1996	**0.185**	**0.587**	**0.412**	**0.398**
1997	**0.203**	**0.567**	**0.468**	**0.411**
1998	**0.218**	**0.596**	**0.456**	**0.424**
1999	**0.222**	**0.500**	**0.410**	**0.377**
2000	**0.259**	**0.612**	**0.443**	**0.442**
2001	**0.231**	**0.549**	**0.457**	**0.411**
2002	**0.329**	**0.512**	**0.464**	**0.434**
2003	**0.429**	**0.581**	**0.434**	**0.488**
2004	**0.383**	**0.541**	**0.387**	**0.445**
2005	**0.412**	**0.457**	**0.419**	**0.431**
2006	**0.455**	**0.571**	**0.426**	**0.492**
2007	**0.517**	**0.591**	**0.442**	**0.526**
2008	**0.455**	**0.560**	**0.517**	**0.511**
2009	**0.611**	**0.453**	**0.499**	**0.521**
2010	**0.571**	**0.477**	**0.473**	**0.510**
2011	**0.538**	**0.487**	**0.512**	**0.511**
2012	**0.652**	**0.479**	**0.489**	**0.543**
2013	**0.642**	**0.487**	**0.538**	**0.556**
2014	**0.757**	**0.491**	**0.533**	**0.597**
2015	**0.706**	**0.481**	**0.510**	**0.569**
2016	**0.640**	**0.487**	**0.496**	**0.544**
2017	**0.677**	**0.498**	**0.483**	**0.558**
2018	**0.660**	**0.500**	**0.449**	**0.544**
2019	**0.707**	**0.444**	**0.444**	**0.538**
2020	**0.787**	**0.046**	**0.546**	**0.441**
2021	**0.834**	**0.468**	**0.532**	**0.615**

From empirical literature and the availability of data, the econometric model is formulated as follows. This model has extensively been used in the literature (Krifa-**Schneider**, 2010; Canh, 2020; Sissani et al., 2014).

$$FDI\ INFLOWS = f(GDP, RISK, SER, MONETARY\ POLICY) \quad (1)$$

The definition and description of each variable is provided in Table :

Table 4. Summary of variables

Variable	Measure	Description	Data Source
FDI	FDI	The natural log of net annual FDI as a percentage of GDP	International Monetary Fund
GDP	Level of economic growth	Annual GDP growth rate	World Bank national accounts data
RISK	Level of uncertainties	The natural log of the country risk index	World Bank national accounts data
SER	Level of education	The natural log of the secondary enrolment ratio	World Bank national accounts data
Monetary Policy	The cost of borrowing (Rate of Interest)	The annual rate of interest	International Financial Statistics

The main focus is to investigate the impact of risk on FDI inflows. Firstly, the country risk index has been constructed while combining the three risk indices, namely the financial risk index, the economic risk index and the political risk index as presented Error! Reference source not found. in the Appendix Section. We proxy the effect of the variables that are likely to influence the risk level in regard to FDI inflows with some of the variables of the International Country Risk Guide (ICRG).

The findings of the specified model are presented in the next section where the estimated results from the relevant preliminary tests have been undertaken. The first test includes the stationarity test, often referred to as the unit root tests in order to verify the order to which the variables included in the model are stationary. The results from the unit root test will determine the regression model to be employed.

Econometric Model

Since the variables are integrated at level form and at first difference, the ARDL approach is used to determine the relationship between risk and FDI inflows. After verifying that the series included in the study (dependent and explanatory variables) are co-integrated, implying the existence of a long-run relationship, the long-run and short-run estimations are undertaken. The long-run equation for the econometric model is as follows:

$$\boldsymbol{LN\ FDI\ INFLOWS = f(GDP\ GROWTH\ RATE, LNRISK, LNSER, MONETARY\ POLICY)} \quad (2)$$

The long-run relationship is also estimated. The cointegration test is estimated and it is assumed that the level of FDI inflows is linearly dependent on the explanatory variables.

EMPIRICAL RESULTS

Correlation Analysis

The correlation matrix has been calculated and analysed for each variable and there was no existence of multicollinearity. It was found that FDI and secondary enrolment ratio were highly correlated with a correlation coefficient of 0.67. The result falls below the parameter of 0.8–0.9 (Kennedy, 2008) and hence shows the absence of correlation among the variables,

Preliminary Testing

Stationarity Test

The stationarity test is summarised using the Augmented Dicky-Fuller and the Phillips-Perron methods. The results show that there exists a mixture of both I(0) and I(1) variables at a 10% level of significance.

Cointegration and ARDL Bound Test

The bound testing method is employed to test any long-run relationship among the variables (Pesaran, 2001). The F-statistics is found to be higher than the upper bound at 10% level of significance. The test hence confirms the presence of a long-run nexus between FDI inflows, and the variables included in the proposed model.

Regression Results

Table 5: Long run ARDL results

Estimated long-run coefficients: LN FDI INFLOWS (% of GDP) as a Dependent Variable				
Variables	Coefficient	Standard Error	T-statistic	Prob
GDP GROWTH RATE	0.280143	0.126774	2.20979	0.0352
LN RISK	-1.056606	0.490985	-2.1520	0.0759
LN SECONDARY ENROLMENT	1.285127	0.703861	1.82582	0.0782
CONSTANT	-30.00487	18.13006	-1.65498	0.1087

From the long-run results, the influence on GDP growth on FDI inflows is positive with a reported coefficient of 0.28. It is noteworthy to point out the magnitude of the coefficient is relatively lower implying that GDP growth rate could be among the minor factors influencing FDI inflows. In the same light, secondary enrolment is found to be significant and is found to be positively linked to FDI inflows. The result for the secondary enrolment ratio is consistent with the findings from Asiedu (2006). However, the rate of interest is insignificant in the long-run. Similarly, Bevan (2004) failed to support the impact of the rate of interest on FDI inflows.

As expected, there exists a negative relationship between risk and FDI inflows where the coefficient of the natural log of risk is found to be significant. For each 1% increase in risk, it leads to a decrease of 1.05% in FDI inflows as a percentage of GDP. Gnangnon (2020) also reported that risk is a significant determinant of FDI and negatively impacts on FDI inflows. The effect of risk on FDI inflows has also been backed by previous studies (Musonera, 2008; Hammache et al., 2017; Al-Gasaymeh, 2020).

Table 6: Short run results

Error Correction Model for the ARDL Model (Short-run estimates)				
Variables	**Coefficients**	**Std Error**	**t-Statistic**	**Prob**
GDP GROWTH RATE	0.063469	0.042681	1.487062	0.1478
LN RISK	4.247887	1.831010	2.319969	0.0276
LN SECONDARY ENROLMENT	-1.608406	0.902974	-1.781232	0.0854
RATE OF INTEREST	-0.014522	0.030234	-0.480318	0.6346
Coint-Eq	-0.721836	0.132751	-5.437507	0.0000
R-squared		0.478418		
Adjusted R-squared		0.417055		
Durbin-Watson Statistics		1.848425		

The short-run analysis is conducted by creating an error correction model (ECM). The result of the error correction term (Coint-Eq) is significant and is within the acceptable parameter of being between 0 and -1. The D-W Statistics of 1.848425 reveals the inexistence of autocorrelation among the variables. Risk and secondary enrolment are statistically significant.

However, the positive coefficient of risk in the short run implies that as risk increases, FDI inflows will also increase. This result could therefore imply that within a short time period, it becomes difficult to witness the real effect of risk on FDI. Also, it would be possible to say that the presence of risk is more of an event, rather than just a shock, which would take some time for the economy to react to an increase in risk.

Sensitivity and Stability Estimates

The diagnostics testing concludes that there is no serial correlation in the regression model used. The Breusch-Godfrey Serial Correlation LM Test is implemented. The results therefore indicate the inexistence of autoregressive conditional heteroscedasticity. We use the CUSUM and the CUSUMSQ plots to test for the stability of the model. The figures show that both plots are within the 5% critical bounds, implying that the model is robust and relevant.

	Obs* R-square	F-statistic	Probability
Serial Correlation – Breusch-Godfrey Serial Correlation LM Test	1.262682	0.378076	0.6895
Heteroscedasticity – Breusch-Pagan-Godfrey	12.86950	0.945428	0.5258

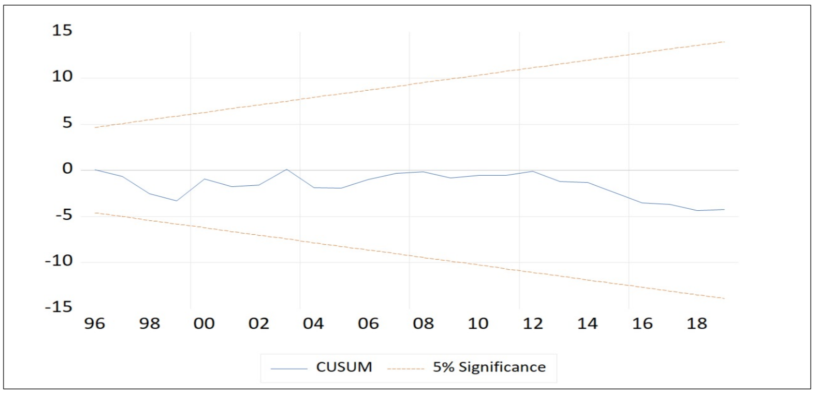

Figure 1: CUSUM Plot

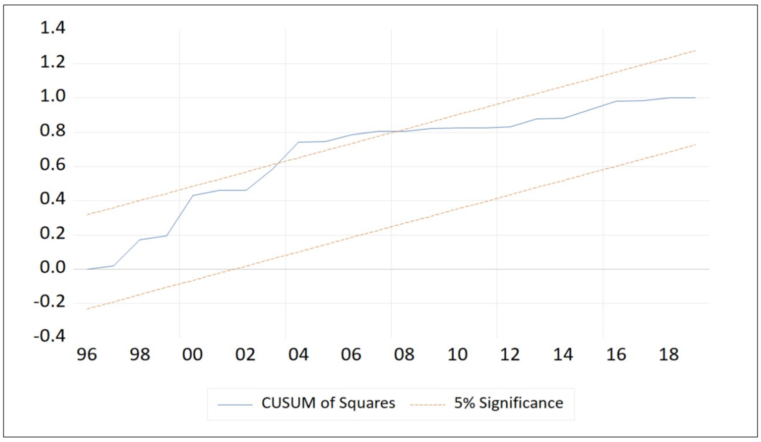

Figure 2: CUSUMSQ plot

CONCLUSION

Investigation into the impact of risk on FDI inflow in Mauritius has been highly overlooked by researchers. This study set out to focus on the impact of country risk on FDI inflow for the recipient country of Mauritius for the period 1980-2019. From the analysed time series univariate properties, the ARDL model was employed to test the proposed econometric model. The results show that in the short run, risk and secondary enrolment have a significant contribution in influencing FDI inflow.

The paper is likely to be favourable for those countries who are interested in investing in Mauritius as well as for those stakeholders who wish to engage in foreign investment, leaving their home country. The country risk-FDI inflows will provide a deeper insight into the factors affecting the level of FDI in these countries. This will also be useful for future researchers in this field or related fields. The country risk index constructed can help to better evaluate and assess the FDI performance. As a result, different measures can be implemented on how to avoid such risk. For instance, existing policies can be reinforced, or new investment strategies can be implemented. Results from the analysis are expected to have important implications for policymakers in their quest to attract FDI, for instance in mitigating country risks or more marketing of the jurisdiction. The government is also anticipated to provide further incentives to reduce any economic and financial uncertainties. Expected results from the analysis of the non-linear relationship are judged to have interesting theoretical contributions to the field as well. The figures for some components of the political risk index had to be extrapolated for some previous years. If for instance, statistics were available on the level of corruption and on the level of voice and accountability, a more robust and accurate political risk index could have been constructed.

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FACTORS THAT INFLUENCE THE EFFECTIVENESS OF WORKPLACE LEARNING ADOPTION IN ORGANISATIONS – A SYNTHESIS OF THE LITERATURE

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Abstract

Workplace learning involves a wide variety of learning activities under formal and informal learning and has common elements such as gain in knowledge, skills, and attitude. Both personal and organisational factors influence the way individuals learn in organisations. It is worth noting that many studies have focused on either personal factors or organisational factors, as influencing factors for the adoption of workplace learning. Still, very few have considered both types of factors in one study. The authors present a synthesis of the current literature on workplace learning guided by the main research question: What factors influence employees' learning in the workplace? The psychological theories and the socio-cultural theories inform the development of the theoretical model of the study. It is proposed to use the 3 P's (Presage, Process, Product) model and modified accordingly to suit workplace learning. An integrative literature approach was used to search, select and synthesise the literature. The literature on workplace learning has been reviewed, criticised, and synthesised in this paper to come up with a proposed framework for the significant factors that influence the effectiveness of workplace learning adoption in organisations. The study reveals that personal factors such as reflection, task uncertainty, motivation, promotion opportunities, organisational commitment, job satisfaction, self-efficacy and proactivity while organisational factors such as job characteristics, organisational and top management support, learning climate and leadership are among the most influential factors, which trigger the effectiveness of workplace learning in an organisation. Based on the above, the authors will evaluate the potential predictors and will propose a conceptual model for understanding workplace learning adoption using personal and organisational factors. The study aims to contribute to the existing literature on workplace learning by the development of an instrument and testing of a predictive structural model to link Human Resource Development, Workplace learning and Internal Service Quality.

Keywords: Workplace learning, individual factors, organisational factors, formal learning and informal learning

INTRODUCTION

Learning, as never before, is at the centre of all discussions. Changes are taking place at an unprecedented pace and individuals need to stay abreast of these changes and how they affect working life in organisations (Garavan et al., 2020; Jansson et al., 2020). As such, individuals at work need to review the way they have been doing things and performing their respective tasks to meet the pace at which the expectations of stakeholders are evolving (Poell et al., 2018). Today, the importance of learning new ways of doing things, learning to understand each other, and learning from each other to create and maintain a smooth relationship among individuals in organisations can be considered as the new norms (Gerpott and Fasbender, 2020; Ropes, 2013; Sprinkle and Urick, 2018). Further, learning alongside upgrading skills, knowledge and attitude is and will need attention also. We are all aware of the positive outcome of learning and development, namely at the organisational, operational, and individual levels (Geetha, 2015; Daryoush, et al., 2013), for organisations to be competitive, learning remains a key Human Resource Development function, which can help in the achievement of the aim of every organisation (Khandakar and Pangil, 2019; Kinkel et al., 2020). However, the approach to learning must be strategic, touching all the levels within the organisation and workplace learning is and will be at the centre of this process (Billet et al., 2008; Poell and Van der Krogt, 2005). We cannot limit learning to classroom instructions, being given the dynamic nature of the changes in organisation, learning in the workplace will have to respond promptly and effectively. In so doing the firm will not be left behind in the industry and employees will not be left aside within the organisation (Manuti et al., 2015). Much research has already been done to attempt to analyse workplace learning and help in the formulation of policies for learning in the workplace (Garavan et al., 2019). However, organisations have and are still looking forward in their search for competitive advantage. The question remains: Is learning the missing jig to fix the puzzle?

Purpose of the Paper

This research is motivated by the present situation where more than ever organisations need to review their strategy in terms of looking beyond the aspect of simple training of the workforce (Ropes, Kleef and Douven, 2020; To and Leung, 2024). Learning cannot happen on its own, but there are several factors considered by researchers, which either enhance or inhibit learning in the organisation. As such this study is being motivated to fill the gap in the literature by analysing the factors, which will help to frame a learning strategy with a life-long perspective and learning for all in the organisation (Zhou and Tu, 2019). The main aim of this study was to identify the personal and organisational factors as influential for adoption of workplace learning. The integrative literature has yielded a proposed framework, which identifies the factors, which motivate employees to engage in a learning activity.

Theoretical Background – The Concept of Workplace Learning.

Workplace learning is an important element in the development of knowledge, skills, and capacities of individuals in organisations, and a proper workplace learning strategy will result in both individual and organisational performance (Shah et al., 2019; Kyndt et al, 2014). Workplace learning has been studied for quite some time and its meaning and definition have been reviewed and interpreted repeatedly by different authors in academic research (Eraut, 2000; Eraut 2001; Ellstrom, 2001; Billet, 2002; Jacobs and Park, 2009). While going through the literature, there is no single definition or set of definitions or explanations of workplace learning (Dale and Beckett, 1999; Marsick and Watkins, 1990, 2001; Stern and Sommerland, 1999). The reason for this might be explained by the fact that workplace learning has evolved from a simple field during the early years of industrialisation to a dynamic place of interaction among individuals of different backgrounds, education and social, age and gender; and this has created a platform for exchange and sharing of knowledge, ideas, decisions and even skills for the benefit of the employees and ultimately for the benefit of their respective organisation (Kyndt et al., 2014). Workplace learning needs to be discussed as to what it is, how it takes place and what are the different types of learning associated with it (Anvik et al., 2020; Olsen and Tikkanen, 2018). The debate regarding work and learning has been there for quite some time now as it has been argued as to whether learning concerning work is happening in the workplace only. Today with the exposure to technology and better connectivity, it is becoming more and more difficult to define workplace learning as such. Jacobs and Park (2009), defined workplace learning as a process rather than an exercise; and included education, training programmes and development with objectives to acquire certain competencies related to one's task or job requirement, immediately or in the future.

METHODOLOGY

An integrative literature approach was used to search, select and synthesise the literature. The literature on workplace learning has been reviewed, criticised and synthesised in this paper to come up with a proposed framework on the significant factors that influence the effectiveness of workplace learning adoption in organisations. The literature search and selection process was performed through a thorough search of the literature on workplace learning. Several databases such as EMERALD INSIGHT, JSTOR, EBSCOHOST, PROQUEST and ELSEVIER were searched using the following key terms: Workplace learning effectiveness*, informal learning*, formal learning*, and personal and organisational factors* amongst others. The articles amounted to about 1546 related to workplace learning and work-integrated learning and were filtered to about 493. After further refinement, 21 quantitative articles were considered for the study and were found to be published between 2006 and 2023. The inclusion/exclusion criteria were based on peer-reviewed journals only, while editorials and book reviews were excluded. Further, only empirical studies were considered, and literature review, conceptual papers and case studies were excluded.

Synthesis of the Literature on Factors or Predictors of Workplace Learning

Workplace learning includes a variety of learning activities, which may be formal or informal and the common purpose is the acquisition of knowledge and development of skills (Manuti, Pastore, Scardigno, Giancaspro, & Morciano, 2015; Ellinger, 2005; Lohman, 2005; Sambrook, 2005). Informal learning is seen to take place concerning the context where it is happening and this urged researchers to study informal learning and its related contextual factors (Marsick and Watkins, 2003; Holmgren

& Sjoberg, 2022). Several types of informal learning and their respective effects have been studied in organisations, based on individual factors, and they have not been combined with the effect of organisational factors (Janowicz-Panjaitan and Noorderhaven, 2008; Park and Choi, 2016; Van Der Klink et al., 2012; Hilkenmeier, Goller and Schaper, 2021; Cesaroli, Alliger, Donsbach, Mathieu, Tannenbaum and Orvis, 2017). Further through their iterative literature review, Jeong et al. (2018) identified the multilevel, individual, and organisational impact of informal learning, and mentioned that still few studies have analysed their combined influence on informal learning. In literature, several studies have identified the antecedents of workplace learning and there are several factors, which have been identified as encouraging the learning process, some have been empirically tested, while some have not.

In recent years several research efforts have been made to identify and describe learning factors and learning strategies in organisations concerning workplace learning (Salcedo et al., 2022; Holmgren, 2022; Lee & Song, 2022; Shahlaei & Snis, 2023). This has led to several sets of test instruments consisting of several scales and items of construct but only some have focused on outcomes of quality related to workplace learning (Bohn and Deutscher, 2020). Several learning measures have been discussed in the literature review while some have been empirically tested. However, it is good to note that these measures have mostly not been tested concerning either employee or organisational outcomes. Fontana et al. (2015) who came up with a measure for self-regulated learning in the workplace, argued that given that the workplace has become a key locus of learners, there is a need for employees to take responsibility for their development needs. Further, Decius et al. (2019) limited their research to informal workplace learning in the development and validation of a learning measure with no outcomes as measure, and they also recommended that future research should include formal and informal learning and link to some learning outcomes. To summarise, workplace learning has to be studied by taking into consideration the personal and organisational factors that influence the adoption of workplace learning, further workplace learning has to be considered with both formal and informal factors, and workplace learning has to be linked with an outcome; Internal Service Quality.

Theoretical Underpinnings

The problem under study will require a review of the learning theories, adult learning theories and workplace learning, to have a good insight into the issues involved. One of the early approaches to learning is based on the behaviourists' views, with ageing views namely classical conditioning (Pavlov) and operant conditioning (Thorndike and Skinner). According to the cognitive theories of learning, it is experienced by the individual as he or she is involved in a problem-solving issue, and the learning influences the individual's knowledge. Individuals learn from their social environment under the social learning theory, which is a combination of behaviourist and cognitive approaches to learning. On the other side, the constructivist's view is that the individual is a perpetual learner and uses any means and ways to learn, which may include experience, reflection and interaction with others. Further Knowles (1971) argues that adults learn differently from children. They have their approach to acquiring knowledge and he highlighted the different characteristics of adult learning (andragogy) as compared to children's learning (pedagogy).

The way people learn is informed by the following theories: Behaviourist, Cognitivist, Constructivist and Social; rather than being a single model, the same are termed a 'cluster of learning theories' by Stewart and Rigg (2011, p. 143). The theoretical model proposed in this study as illustrated in Figure 1 is guided by the social learning theory. Accordingly, social learning theory is based on the fact that thinking is triggered, and learning is acquired while an individual interacts with others, and the reason, which enhances this process is related to the individual and the context (Stewart and Rigg, 2011, p. 118).

Individual Factors Influencing the Adoption of Workplace Learning

Individual factors or personal factors of the employees are essential elements, which influence the employee to engage in the process of workplace learning. (Tynjala, 2013; Lee et al, 2019; Hilkenmeier et al., 2021). As such the employee will engage in a personal reflection and will decide whether to engage in the process of learning in the workplace, and the basic learning factors, according to Tynjala (2013), are knowledge, skills and ability along with commitment, motivation and life situation. This research goes a bit further by discussing the following personal factors such as reflection, task uncertainty, motivation, perceived promotion possibilities, organisational commitment, job satisfaction, self-efficacy, proactivity and demographics.

Reflection

Reflection is viewed by Faller, Lundgren and Marsick (2020), as how it applies to learning in the workplace and the impact of reflection on HRD through the different reflective practices is also questioned (Hartmann, Kruif and van Weesep, 2023). Organisations will benefit from the popularisation of workplace learning through informal learning by encouraging feedback and exchange among employees through the process of reflection (Decius et al., 2023, Ellstrom, 2001). Reflection by itself can be a personal factor, which will trigger the use of either informal or formal learning to fill the gap in knowledge of the individual in the workplace, and as such the creation and dissemination of knowledge can only be successful through the exercise of reflection (Tannebaum et al., 2001; Fergusson, 2022; Decius et al., 2023). Reflection may also be alone or in the group, and based on that perspective, Faller et al. (2020), went in-depth to question the importance and use of reflection and its impact on workplace learning, however, reflection is considered under organisational factors by (Kyndt et al., 2016), as opportunities given by the organisation for the employee to reflect in terms of specific time slot or through the process of assessment, which can be through the formal process of appraisal.

Task Uncertainty

Task uncertainty is when we must deal with a new challenge, very little information is available, and the consequence is unknown, but still, we need to deal with it urgently. This is a recurrent situation in organisations and is present daily and is the consequence of both internal as well as external factors. Hence, to stay ahead of these uncertain situations, the employees need to continuously seek and find means and ways to get prepared for the same. As such the factor of knowledge must be a dynamic process, hence employees will engage in learning activities in the workplace to enhance their knowledge (Lee et al., 2019).

Motivation

The factor of motivation, intrinsic as well as extrinsic, is very important for students as well as employees willing to learn. The interest, fascination and passion derive from the intrinsic element where the student wants to learn and value the content as well as the expectation for success associated with the learning task – the expectancy-value theory of motivation (Lohman, 2006). As such individuals with high levels of motivation will always be eager to learn new things in the workplace as well as outside the workplace, to improve their performance through KSA improvement (Lee et al., 2019). Kyndt, Vermeire and Cabus (2016) have a good perspective of motivation to learn in the sense that they relate this feeling with willingness and desire to participate in learning and development activities to perform better in their respective job (Major, et al., 2006, Corno, 1993).

Perceive Promotion Possibilities

When there are possibilities for promotion and the same are identified by employees, these will trigger a level of motivation to learn. According to Bonet (2014), being involved in new and challenging tasks and projects, same will encourage them to be involved in the process of workplace learning with objectives to learn and acquire new skills, as such this will cascade down to opportunities for promotion for them (Lee et al., 2019).

Organisational Commitment

Organisational commitment is a catalyst for workplace learning among employees. Organisational commitment and engagement encourage employees to share their knowledge with their colleagues (Chang et al., 2015, van den Hooff and de Ridder, 2004), to seek and acquire new knowledge (Allen and Meyer, 1990) and hence the employee will develop a dedication to his work and organisation, and go the extra mile to achieve the objectives of the organisation (O'Reilly and Chatman, 1986).

Job Satisfaction

Lee et al. (2018) assumed that, if individuals display a high level of satisfaction at work, they will straight forward get involved in the learning process and more precisely informally. Their assumption was based on the fact that Zumra and Boyle (2015) confirmed that job satisfaction is a trigger to transfer their learning accordingly. This assumption was confirmed in their empirical study that job satisfaction affects the employee's perception of the effectiveness of informal workplace learning. Lehtonen et al. (2021) explained job satisfaction as the employee's perception of his/her respective job and is determined by the work environment and his/her expectations are met. However, job satisfaction is not directly impacted by specific environments or events, but rather by the perception of the employee himself or herself (Lehtonen et al., 2021).

Self-efficacy

Self-efficacy concerns the beliefs that an individual has about his capabilities to perform a task and achieve goals (Bandura, 1986) and with such beliefs, a feeling of motivation is felt to engage in the process of learning (Kyndt et al., 2016), which ultimately will trigger a need to seek for ways to acquire new knowledge (Noe at al., 2013). The construct of self-efficacy has shown a good relationship with outcomes such as training proficiency and learning intention (Kyndt, et al., 2011; Martoccchio and Judge, 1997; Han et al., 2021) and self-efficacy at work is the employees' ability to produce a behaviour to execute a task to ultimately produce a specific outcome of performance. Confidence and trust in their ability will reflect on the employee's belief to get things done and they should be involved in some activities to achieve the performance or task required. As self-efficacy relates to the social cognitive theory and social learning theory, it will impact the employees' motivation, and effort to accomplish a certain task.

The systematic study by Kyndt and Baert (2013) of the factor self-efficacy (Noe et al., Porter, 2005) was among the most consistent predictors of employee learning at work, while according to Han, Lee Park (2018), self-efficacy strengthens employees' learning via informal learning as well as formal learning (Yoon et al., 2018). Self-efficacy increases employees' informal learning participation and engagement because employees with high self-efficacy are motivated to perform at a high level and learn new skills, in turn leading to employees actively engaging in informal learning (Jeong et al., 2018; Choi and Jacobs, 2011; Lohman, 2006). In addition, employees with high self-efficacy think about their work in a reflective manner and this means that they learn from mistakes and actively share knowledge and experiences with others, which are forms of informal learning (Marsick and Watkins, 2001).

Proactivity

A proactive individual will search and get involved in learning and development processes on and by his means in the organisation, as such the level of motivation is very high in such a way that any hurdle will be analysed, tackled, and overcome (Major, et al., 2006, Kyndt et al., 2016). The learner or individual at work will normally have in mind the outcomes, such as an improvement in attitude, knowledge and skills, which will impact his or her performance at work (Antonacopoulou, 2000; Bateman, and Crant, 1993; Crant 2000). The systematic study of Kyndt and Baert (2013) identified proactivity (Antonacopoulou, 2000; Bateman, and Crant, 1993; Crant 2000) as one of the most consistent personal predictors of employee learning at work.

Demographics

Quite interesting findings when demographics have been introduced as a factor affecting the interest in workplace learning (Berg and Chyung, 2008) and research on the relationship between demographics has resulted in mixed outcomes. Some younger learners will access information on their tasks and duties through the use of technology, not much difference in terms of gender, however, the reasons, which trigger learning differ (Jeong et al., 2018). In some cases, older employees have more restricted learning intentions than their younger colleagues; as employees get older, their intention to participate in learning activities declines (Tikkanen, 2001), while the contrary was true in the findings of Livingstone (2002). Seniority and tenure within an organisation showed a negative relation with learning intention (Kyndt et al., 2012) and also there is no difference in gender and employees with or without children, regarding their intention to engage in learning, even though the research is limited (Kyndt, et al., 2012).

Organisational Factors Influencing the Adoption of Workplace Learning

Organisational factors have a direct influence on the workplace learning climate in organisations given that workplace learning takes place during the day-to-day work challenges and tasks (Milligan et al., 2015). According to Enthoven et al. (2023), through their ethnographic study, workplace learning among teachers depends on organisational factors termed as contextual factors; namely structural and cultural factors. These structural factors include time and materials, spatial infrastructure, formal support workload and professional development possibilities while cultural factors include shared school culture, supportive climate for professional learning and active involvement in decision-making processes. The following organisational factors such as job characteristics, organisational support, top management support, learning climate and leadership are discussed.

Job Characteristics

The interaction of any job with the characteristics of a worker or employee will enhance learning in the workplace. Job characteristics have several components and job demand, and job control may result in negative outcomes while well-being, self-confidence and active learning behaviour may result in positive outcomes (Raemdonck et al., 2014). In research, job characteristics have been linked to learning through several models and the most popular models are Karasek's job demand-control model and the derived demand-control support model (Panaris et al., 2010; Taris et al., 2003). While some other models have also been used and including the job control model by Hackman and Oldham (1975), action theory (Frese and Zapf, 1994; Hacker, 1998) and goal setting theory (Locke et Latham, 1990) and the self-determination theory (Deci and Ryan, 1985). Oldham and Hackman (2010) explained through the model how the five dimensions influence employees' psychological states at work and as such how they tackle their jobs resulting in an improvement in their respective performance. Several researchers have put forward the relationship between job characteristics and informal workplace learning, and this gives ground for the consideration of job characteristics as a factor influencing learning at the individual level. Jeong et al (2018) confirmed the relationship between various job characteristics and informal learning at the individual level, while through their literature review, Wielengenga-Meijer (2010) highlighted that job demand, autonomy and feedback encourage the learning process and lead to improved outcomes. Further, Raemdonck et al. (2014) confirmed the hypothesis that job characteristics have a relationship with the learning of employees in the workplace. Employees facing high job demands are compelled to learn new skills and develop new knowledge to keep up with the challenges of their respective work. The role of job characteristics is critical to job performance in the research by Han et al. (2022), where informal workplace learning mediates the relationship.

Organisational Support

Organisational support includes constructs such as access to ICT/availability of resources, open communication channels and human resource development support. Access to Information Communication and Technology (ICT) resides principally in the hands of management. Is there a willingness to share organisational information with management? How accessible is this information to the employees at the different levels and more precisely at the operational level? (Kyndt, Vermeire and Cabus, 2016). Even though in the study of Lee et al. (2019) top management support and open communication had no significant relationship with informal learning effectiveness, the same has been proved wrong by Ellinger (2005), Covearts et al. (2018), Collins and Ellstrom (2001) and Skule (2008). As such both items will be taken into consideration for the study of formal and informal learning in the public sector workplace. Human resource development support as a proper training and development structure will trigger and enhance learning opportunities and will directly impact the performance of individuals (Coetzer, 2006). HRD support may include resources such as books, library, access to website, internet facilities and learning, as participation in informal meetings and brainstorming, and formal seminars, workshops, short courses and all the above will impact on the knowledge, skill, and attitude of the individual at work (Lee et al., 2019; Coetzer, 2006).

Top Management Support

Critical for everyone in the organisation is top management support, which is prime to any improvement and development, which will result in commitment towards a learning environment. Top management normally decides on the strategy of the organisation towards competitive advantage and the element of employee development should be the central element of HRD. Top management will decide on the availability of funds, resources, and time for employees to learn formally or informally through a proper strategy and also have in mind the perspective of retention, career development and succession planning, which are all related to HRD (Lee et al., 2019, Marsick and Watkins, 2003). Today individuals by themselves are very knowledgeable, however, a good way to learn is through teamwork and learning through the strength of our teammates, regular discussion and sharing of ideas trigger learning and give a sense of confidence to every employee. In a team, there is a sense of belongingness and mutual support (Jonsson and Scholin, 2013; Ellinger et al, 1999). Professional and organisational development can be aided by a certain formalisation of informal learning and informalisation of formal learning (Latorre, 2020).

Learning Climate

Learning climate is seen as the practices and policies put in place by organisations to enhance the environment towards learning and is measured by Nikolova (2014b) using the three dimensions namely facilitation, appreciation and error avoidance. It is worth noting that Nikolova et al. (2014) defined learning climate by taking into consideration both informal and formal learning possibilities in the workplace. While choosing the related factor under learning climate, the authors, Kyndt, Vermeire and Cabus (2016) gave preference to factors, which have been used in prior research but are related to the healthcare sector. This research on the public sector will also include the public health care and wellness sector in Mauritius. So the following construct of learning climate will be included in the first instance and will undergo an exploratory factor analysis: Opportunities for cooperation (Johnson and Johnson, 1988; Baert et al., 2008; Collin, 2002; Kyndt et al., 2016), Opportunities for evaluation (Ellstrom, 2001; Collin, 2002; Kyndt et al., 2016), Opportunities for feedback (Kyndt et al., 2016; Eraut, 2007; Ellstrom, 2001; Baert et al., 2008; Kyndt et al., 2009), Opportunities for reflection (Boud et al., 2006; Eraut et al., 2004; Bennink and Fansen, 2007; Boud et al., 1985, Kyndt et al., 2016) and Opportunities for knowledge acquisition and access to information (Kyndt, et al., 2009, 2016; Kyndt et al, 2009).

Leadership

Leaders have a very important role in facilitating learning among individuals, groups and organisations (Lundqvist, Wallo, Coetzer and Kock, 2022). Leadership has many categories, however, our interest is in leadership for learning, where the leader’s behaviour focuses on enhancing learning in the workplace through their action and support in the organisation. Leadership has been identified by Jeong et al. (2018) through their literature review and by Cesaroli et al. (2018) as an important element, which affects the use of informal learning. Zia et al. (2022) went further to analyse the relationship between transformational leadership and informal learning in an empirical study using Structural Equation Modelling, and their study was conclusive in that they found that transformational leadership promotes informal learning among employees in organisations. Learning outcomes and leadership styles adopted among bank managers are mediated by the learning approaches in Austria (Froelich et al., 2014) while in the Toyota Production System in Sweden, operational managers and leaders have a very important role to play in the manufacturing industry towards the continuous improvement initiative (Jonsson et al., 2023).

CONCLUSION

The literature review has highlighted the importance of adopting workplace learning in organisations and also provides management with insight into specific factors that warrant their attention to enhance workplace learning effectiveness. Organisations should consider the concept of workplace learning as an investment instead of a cost and workplace learning should be an ongoing process and not a one-off process. The concept of workplace learning has gained importance in the private sector over the past years, as such the adoption of workplace learning in the public sector and public-owned organisations should be formulated as a strategy for these organisations in their quest to enhance service quality delivery. The review of the literature has been very conclusive as it has led to the identification of the workplace learning factors, at individual and organisational levels considered critical for the effectiveness of workplace learning. However, a further scrutiny was carried out among the factors; the personal factors were scaled down to reflection, self-efficacy and self-directedness.

While the organisational factors cascade down to learning climate and learning oriented leadership as shown in Figure 1.0.

The proposed research framework is given in Figure 1.0:

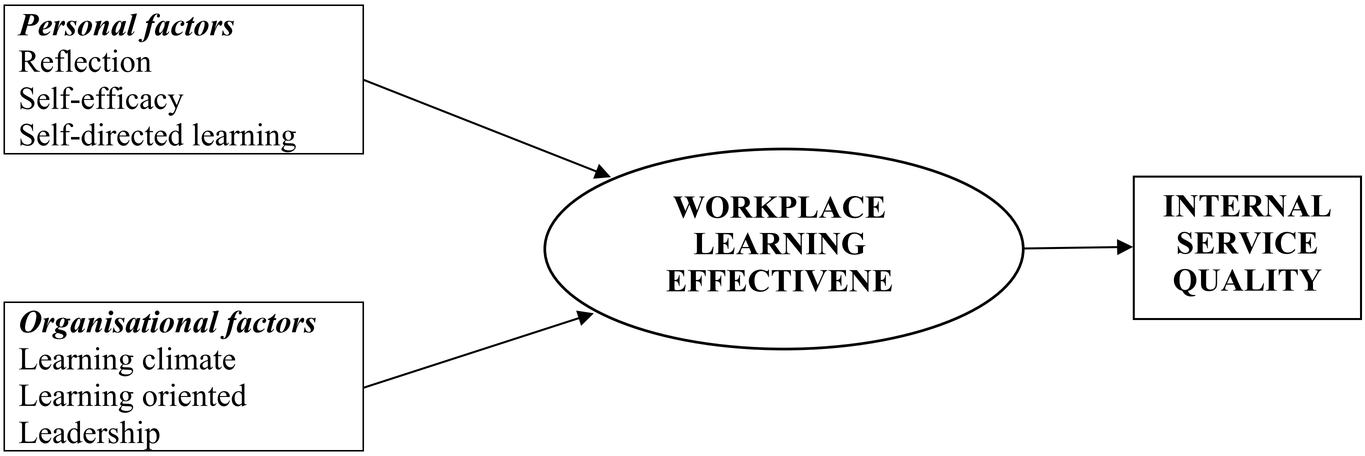

Figure 1.0

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CONCEPTUALISING SOLUTIONS TO THE CHALLENGES RELATED TO POOR IMPLEMENTATION OF LOCAL ECONOMIC DEVELOPMENT STRATEGY IN THE NORTH-WEST PROVINCE

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Abstract

This study examines challenges hindering the implementation of the Local Economic Development (LED) strategy in North-West Province, South Africa, and proposes solutions for economic improvement. Using a quantitative, positivist approach, data were collected through surveys with LED practitioners at provincial and municipal levels. Key findings reveal weak administrative systems, financial constraints, lack of public-private partnerships, and poor stakeholder engagement as major obstacles. Statistical analysis confirmed widespread inefficiencies in LED execution. The study recommends improved governance, resource allocation, and strategic collaboration to enhance LED effectiveness and bridge economic disparities. These insights contribute to policy refinement for sustainable economic growth.

Keywords: Economic, growth, local development

INTRODUCTION

The objective was to determine the challenges related to the implementation of the Local Economic Development strategy (LED) and introduce solutions that will directly improve the economy of the province. Post 1994 the province has seen an increase in the unequal distribution of wealth as the rest of South Africa, where the poor have become poorer, and the wealthy have become wealthier. One of the causes of this failure emanates from the provincial LED framework that is not implementable in the municipality.

Figure 1 depicts how the South African economy is unevenly distributed and unstructured. Some parts are rich, while others are poor. Where the coefficient is closer to one, it depicts that there is inequality. The Gini coefficient measures inequality. The map above shows that income is extremely skewed in Gauteng where there is a massive variation in the income of individuals.

The National Framework for LED in South Africa (2006-2011) states that apart from the planning context, the difficulty of implementing the LED strategies and plans is the connection across national, provincial and local governments. The main challenges that hinder the implementation of the LED as mentioned in the National LED Framework can be summarised as follows:

1. Poor and, lack of infrastructure
2. Poor education and skill mismatch

3. Lack of communication and public participation
4. LED is not recognised as an important aspect in municipalities and poor allocation of funds
5. Relationship between national and provincial strategies in the municipal LED strategies

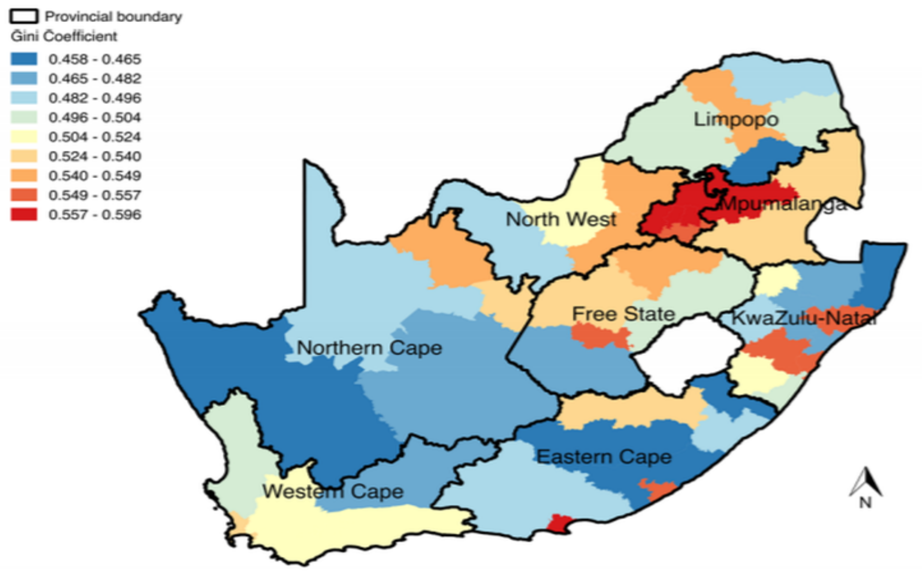

Figure 2: Classification of the poverty gap by District (Source: SA Census 2011)

LITERATURE REVIEW

According to Abioro et al. (2022) it is urgent that avenues for real, interactive, and deepened cooperation among national state, and local governments must be advanced to make service delivery attainable, as the proper functioning of a federal system requires a network of informal, intergovernmental, and interpersonal relations among officials of the tiers of government.

Matlala and Motsepe (2020) confirmed that LED support is a multi-agency undertaking involving national and provincial government agencies. The study also found a disjuncture between the roles of the Department of Economic Development (DED) and the Department of Cooperative Governance and Traditional Affairs (CoGTA) in LED support. LED partnerships in the municipality should be improved and sound intergovernmental relations in LED support should be promoted across the three spheres of government. (Mumba & Van der Walt, 2023). However, the successful implementation of these strategies is constrained by both broader systemic challenges and specific municipal constraints. Especially resource-constrained local municipalities

The municipalities should not only provide services and encouragement of socio-economic growth, but they should also enhance multistakeholder engagement in society to improve the livelihoods of communities (Mkhize & Mutereko, 2022)

XC Thani's (2020) desktop research revealed that local municipalities' readiness for the 4th industrial revolution (4IR) plays a key role in addressing local economic challenges. Thus, it can be concluded that an LED strategy and the 4IR can be combined to ensure economic growth in local communities. The article concludes by providing a set of literature-based best practices on how the South African government can successfully implement future-focused, sustainable LED and 4IR strategies.

PROBLEM STATEMENT

Poor implementation of the LED strategy at Municipal level.

The objectives of the study were:

1. Determine the challenges related to the implementation of the LED implementation strategy.
2. Make recommendations regarding improvements in the LED implementation strategy.

METHODOLOGY

The study took a positivist approach and used quantitative techniques on both primary and secondary data. The researcher has collected information on instruments based on measures completed by the participants recorded by the researcher.

The study had a quantitative method and was deductive. The data collected were numeric in nature. A quantitative study is an approach to test objective theories by examining the relationship among variables; Where these variables can be measured, data can be analysed using statistical procedures (Creswell, 2014).

Case Study

The study used 104 research questionnaires within the case study research to collect empirical data. A case study was chosen as only LED of North-West (NW) was looked at. The data collected was analysed using Statistical Package for the Social Sciences (SPSS). SPSS Statistics is a statistical software suite developed by IBM for data management, advanced analytics, multivariate analysis, business intelligence, and criminal investigation. Long produced by SPSS Inc., it was acquired by IBM in 2009

Population of the Study

In the study, there were two categories of respondents. The first category was the provincial respondents comprising of those employed within the provincial government but directly charged with the responsibility of local economic development. The second category of respondents were those employed in all the 21 municipalities but are charged with the responsibility of LED.

They will be distributed to LED officers in both the provincial department and the municipality. The two municipal regional LED forums have 50 delegates each, and 150 questionnaires will be distributed. In total, there will be five sections within the questionnaires that the respondents have to fill out. To analyse the data, SPSS will be used. Secondary data, the documents to be looked at within the municipality are the LED strategy, IDP, SDBIP, and the legal legislative documents that guide the South African local government.

Table 1: Policymakers

POLICYMAKERS	Total number of employees
• LED UNIT NW COGSHTA The unit represents employees who monitors and supports the local municipality with LED • DEDECT in NW The Department is responsible for enabling economic growth in the Province • NWDC The corporation assists municipalities with implementation plans • Municipal LED practitioners The employees within each municipality	**6** **70** **5** **110** **Total N =191** **S= 104**

Source: Roberts-Tebejane thesis 2019 NWU

RESULTS

The study revealed:

1. Poor or weak administrative systems hinder progress in the implementation of the LED strategy.
2. Communities were not informed of the LED strategy and its content.
3. Municipalities are financially too constrained to achieve most of their set strategic LED targets.
4. Lack of private-public partnerships and corruption has worsened the situation.

Table 2: The perceived challenges relating to the implementation of LED strategy

Statement	Strongly agree	Agree	Disagree	Strongly disagree	Total
	1	2	3	4	
There is generally incapacity or shortage of skilled personnel	39(38.6%)	44(43.6%)	11(10.9%)	7(6.9%)	101(100%)
Majority of the employees in the municipality' level	32(31.4%)	43(42.2%)	17(16.7%)	10(9.8%)	102(100%)
Corruption hinders the success of many projects enlisted in the LED strategy	56(54.9%)	33(32.4%)	8(7.8%)	5(4.9%)	102(100%)
Poor or weak administrative systems hinder progress on the implementation on the LED strategy	52(51.0%)	41(40.2%)	5(4.9%)	4(3.9%)	102(100%)
Lack of transport infrastructure services hampers LED initiatives	31(30.4%)	53(52.0%)	14(13.7%)	4(3.9%)	102(100%)
Lack of water and electricity services hampers LED initiatives	40(39.6%)	47(46.5%)	10(9.9%)	4(4.0%)	101(100%)
The communities were not informed of the LED strategy and its contents	22(21.8%)	57(56.4%)	14(13.9%)	8(7.9%)	101(100%)

Statement	Strongly agree	Agree	Disagree	Strongly disagree	Total
	1	2	3	4	
The municipalities are financially constrained to achieve most of their set LED strategic targets	46(45.1%)	34(33.3%)	12(11.8%)	10(9.8%)	102(100%)
Lack of private-public partnerships hinders the implementation of the LED programmes	45(44.1%)	44(43.1%)	8(7.8%)	5(4.9%)	102(100%)

Shows the rounding off

DISCUSSION OF FINDINGS

The results presented in Table 1 revealed that 84.3% of the respondents indicated that the majority of goals set in the LED strategy have not been achieved and implemented, 86.2% of the respondents indicated that the LED strategic implementation plan has not been followed to the letter. 90.1% of the respondents indicated that the targets in the LED strategy are not achieved, and 81.9% of the respondents indicated that the service delivery provisions have not improved following the implementation of the LED strategy. The results in Table 1 also revealed that 75.3% of the respondents indicated that projects emanating from the LED strategy have not empowered the local communities with employment and 89.3% of the respondents indicated that communities around the NW Province have not benefitted equally from the redistributed resources. 70.6% of the respondents indicated that there are no viable partnerships between public, private and governmental sectors, and lastly, 81.0% of the respondents indicated that projects from the LED strategy do not benefit the local communities and income circulate within the communities.

Analysis of the Results

The ANOVA was used to check the difference of perception between the participants because there may be different perception with regards to LED framework implementation, which had to be tested first. This perception affected the study as it would then have to be further researched as to where are the difference and what caused them and if those perceptions affects service delivery.

Table 3: The variances in employees' perceived effectiveness of the LED implementation strategy mean score and gender

	t-value	p-value
Equal variances assumed	-1.113	0.268
Equal variances not assumed	-1.103	0.273

The outcome shown in Table 2 shows that there is an insignificant variance found for the mean score of perceived effectiveness of the LED implementation strategy and gender of the respondents. Gender does not influence the answers of the respondents.

Table 4: Perceived effectiveness of the LED implementation strategy means scores and marital status

	Sum of squares	df	Mean square	F-value	P-value
Between groups	0.440	3	0.147	0.468	0.706
Within groups	30.736	98	0.314		
Total	31.176	101			

Table 5: Effectiveness of the LED implementation strategy mean scores and race

	Sum of squares	df	Mean square	F-value	P-value
Between groups	0.854	3	0.285	0.920	0.434
Within groups	30.323	98	0.309		
Total	31.176	101			

The race of the respondents did not influence the responses

Table 6*:* Differences in employees' perceived effectiveness of LED implementation strategy mean scores and age groups

	Sum of squares	df	Mean square	F-value	P-value
Between groups	0.069	2	0.034	0.110	0.896
Within groups	31.108	99	0.314		
Total	31.176	101			

Three categories were used for comparison: 1 = 18-35 years, 2 = 35-45 years, and 3 = over 45 years. Therefore, all age groups do not have an impact on how responses were made to the questions on the effectiveness of the LED implementation strategy.

Table 7*:* Effectiveness of led implementation strategy mean score and level of education

	Sum of squares	df	Mean square	F-value	P-value
Between groups	1.757	4	0.439	1.448	0.224
Within groups	29.419	97	0.303		
Total	31.176	101			

Regarding the level of education, statistically insignificant results were recorded for the mean score of level of education and the employees' perceived effectiveness of the LED implementation strategy.

Managerial Implications

According to the National LED Framework, sixth volume (COGTA, 2020) the challenges facing LED implementation is amongst others lack of a shared conceptual understanding of what LED is. Therefore, resources were put aside by COGTA to train municipal officials on the role of LED within municipalities. Lack of integrated LED planning and implementation is the second challenge identified, hence the DDM was introduced to ensure that there is one plan within all sector departments.

CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

The drafted National Local Economic Development Implementation Plan (Department of Corporative Governance and Traditional Affairs, 2023) is aimed at enhancing the implementation of the LED programmes. These initiatives are aimed at improving economic growth and development, creating jobs, reducing poverty, and

Looking at the above-mentioned challenges on local economic development in the country, which are the same challenges in the North-West, the issue of stakeholder engagement and ensuring that the planned development is sustainable would eliminate the challenges. The challenges that are mentioned earlier in the document show that the problem of low economic growth and development in the North-West is not caused by the lack of legislation, which includes the people and stakeholders, but according to (Ndabeni, 2016) it is mainly within municipal institutions where there is a lack of understanding of exactly what local economic development is, as well as silo planning, which occurs between government sectors.

The alignment of the qualification of the respondents to the position held was not looked at in the study, which is a limitation that can be further researched.

RECOMMENDATIONS

It is recommended that:

1. The skills levy should be used by municipalities where partnerships are forged with North-West University (NWU) to improve the skills of the LED unit.
2. The provincial LED strategy should include measures as established in the National Anti-Corruption and Fraud strategy to address the corruption that hinders LED.
3. The provincial strategy should include a detailed costed implementation plan.
4. There should be robust interaction with all interested stakeholders to guard against uncoordinated government planning.
5. There should be a ringfenced budget specifically for LEDs.
6. Only communicate a cash-backed plan with stakeholders. The Roberts-Tebejane framework says, ‘identify the resource before expectations are created’.
7. The skilled employees within the municipalities should be given the liberty to implement without political intervention.

8. When the institutions responsible for ensuring that there is economic development in the locality start recognising it and availing their own funds, other players will also recognise it as important.
9. The elimination of silo planning will be realised when all are putting the resources aside for LED. No one department can have a catalytic project that turns the economy around alone, and therefore when one is aware that the main driver has put money aside, it will become easier for them to follow within their jurisdiction.

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Municipal IDP and LED Strategies

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RESILIENCE AND ACADEMIC PERFORMANCE AMONG STUDENTS LIVING WITH HIV AT ONE SELECTED UNIVERSITY IN SOUTH AFRICA

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Abstract

Mitigating positive approaches for university students living with Human Immunodeficiency Virus (SLWHIV) continues to be a challenge in South Africa. However, research indicates that quality of life (QOL) of the SLWHIV plays a vital role for their resiliency effect. Adopting Ungar's resilience theory and B. F. Skinner's operant conditioning, this study determined the protective and external factors that enhance resilience among SLWHIV and explored how they perform academically. A purposive, qualitative research design with 12 students from one campus in the Eastern Cape, South Africa, was employed. Prior to conducting face-to-face individual interviews, which were time-consuming, the researchers sought permission from relevant gatekeepers to ensure that the ethical considerations are upheld for participants' dignity, informed consent, and privacy. Lincoln and Guba's principles of trustworthiness as well as Tesch's thematic analytical method for data analysis led to identification of the themes and subthemes. From the findings, resilient SLWHIV demonstrated sense of coherence, fortitude, adherence self-efficacy to their antiretroviral drugs (ARVs) owing to the emotional support from the campus clinic, Student Counselling Unit, peers, and family members, hence, their academic performance is satisfactory. To counteract discrimination, going to other towns for the ARVs worked for some because cyberbullying can deplete resilience. There is a need for an increase in the psychological and social interventions to support existing interactive and teaching programmes in the Higher Education Institutions (HEIs) for the purpose of helping the SLWHIV

students to cope with their health condition and academic pressures rather than resorting to drugs and alcohol.

Keywords: Academic performance, fortitude, resilience, sense of coherence, university students

INTRODUCTION

Reports from the Centre for Disease Control (2018) revealed that in the United States, Human Immunodeficiency Virus (HIV) has been increasing among university students. Furthermore, of the 18,335 university students aged 16-30 years old, from 25 countries such as Russia, Mauritius, Cameroon, China, Ivory Coast and South Africa, participated on the mental health research, 0.6% had been living with HIV, 13% had depressive symptoms while 12.5 % indicated to be drinking alcohol (Pengdid & Peltzer, 2020). However, the higher education scholarship is silent on mitigating strategies to strengthen resilience among students living with HIV(SLWHIV) (Denton & Abes, 2022). Some of the reasons for the institution of higher learning to be slow in combating the scourge of HIV is lack of literature on resilience at tertiary (Mohapi & Pitsoane, 2017). According to Ungar et al (2021), resilience is defined as the ability to cope with HIV infection, and it entails a process of sustaining well-being. Its promotive factors lie in adaptation and thriving strategies that an individual may demonstrate during adversities. In the context of HIV, a SLWHIV may be become strong, physically healthy and adhere to antiretroviral drugs when receiving support from the HIV support group members and university community (Yimer et al., 2021). Since resilience occurs in the context of posttraumatic growth, SLWHIV are assumed to maintain positive emotions, mental- health and derive meaning from their stressful situations (Pięta & Rzeszutek, 2023). Equally important, Antonovsky (1987) found that students who demonstrate a strong sense of coherence choose to be prosocial and exhibit hygienic practices as they believe in themselves to manage any event relative to their low sense of coherence counterparts. Connor and Davidson (2003), the pioneers of Connor- Davidson Resilience Scale, also agree that the personal qualities of such students are their self-efficacy and power to accept change.

The United Nations Members States adopted the 2030 Agenda for Sustainable Development to end the AIDS pandemic (General Assembly of the United Nations, 2015). However, in South Africa, a decade ago, Ndabarora and Mchunu (2014) explored how the students living in residence at the University of KwaZulu-Natal utilised the HIV/AIDS preventive methods, but there was no emphasis on resilience among SLWHIV. University of South Africa (UNISA) also lacks the life skills programmes to safeguard the well-being and foster resilience of its students living with HIV (Mohapi & Pitsoane, 2017). Mavhandu-Mudzusi (2014) established that there is lack of commitment from the University of Limpopo and University of Venda from Limpopo Province, South Africa, as there are inadequate resources to initiate HIV/AIDS prevention programmes for its students. In a quantitative study investigating the sense of coherence and resilience of HIV-positive students in the support group of a university in the Eastern Cape, Hoho (2014) found that SLWHIV reported low resilience owing to lack of coping strategies against HIV/AIDS. Such gaps from the previous studies are some of the reasons that the current research attempts to explore the experiences of SLWHIV as far as their resilience effect and academic performance are concerned, from one selected university in South

Africa. The two questions that emerged in this regard are: (i) What are the major challenges faced by SLWHIV? (ii) How do the SLWHIV maintain their resilience and cope academically?

RESEARCH OBJECTIVES

The research objectives were formulated as follows:

(i) To determine the major challenges faced by SLWHIV?

(ii) To explore how the SLWHIV maintain their resilience and coping strategies, academically?

REVIEW OF RELATED LITERATURE

In this section, the theoretical framework and literature on resilience and academic performance among students living with HIV will be discussed.

Theoretical Framework

This study is underpinned by Ungar's resilience theory and B. F Skinner' operant conditioning theory. According to Ungar (2021), resilience is a multisystemic process that is adaptive and supportive of positive outcomes such as school engagement and positive contributions to well-being and community. Supporting the relevance of this theory are the systematic reviews found in sub-Saharan studies that the personal protective factors could be sources of resilience and self-efficacy (Theron, 2020). From operant conditioning perspective, HIV can be regarded as the punishment where an SLWHIV either avoids or develops an attitude towards the psychosocial challenges attach to it (Chirwa, 2022). Consequently, lack of support and positive reinforcement could tear SLWHIV's resilience and lead to learned helplessness, which, in turn, results to substance abuse, defaulting, and poor academic performance (Yeh et al., 2015).

Resilience and Academic Performance Among Students Living with HIV

Resilience theory proposes that for academic excellence, there are certain attributes that a student should possess to manage psychological stress stemming from an overwhelming workload, study fees to university accommodation (Chopra, 2020). Students with high levels of resilience strive for academic excellence owing to their positive self-esteem and problem- solving skills (Allen & Roberts, 2019). Through collaboration, studies show that they exert efforts, academically and participate in various sporting codes such soccer, rugby, netball and karate (Loveday et al., 2022).

In the next paragraphs, the discussion will be on factors and effects associated with resilience and academic performance of SLWHIV, namely, psychosocial support versus depression, University policies on supporting SLWHIV, challenges faced by SLWHIV at the university residences and university campus environment for the LGBTIQ community.

Psychosocial Support, Flourishing and Stigma

Hope, optimism and greater ability to cope with negativity foster resilience especially when there is availability of resources such as student service support, faith-based support system, and social relationship with lecturers (Chirwa, 2022). Furthermore, from a mental health perspective, social support and connectedness with family members, parents and friends can serve as a buffer against depression, temptation with substance abuse and irregular adherence to antiretroviral treatment for SLWHIV (Tsotetsi, 2018). In China, SLWHIV with satisfying marital relationships reported health care and interdependence, which, contributed to being self-construal (Huang et al., 2018). Thus, Keyes and Simoes (2012) describe them as flourishing because they function well in life, have internal locus of control, can exert psychological powers for adaptation and coping with psychological challenges.

However, Gumindega and Maharaj's (2022) study on HIV counselling and testing black gay couples at the University of KwaZulu-Natal, South Africa, shows that due to homophobia, participants reported that they rarely sought health care services from the clinics as the environment is not friendly towards the LGBTIQ community. Lack of programmes such as seminars to fight stigma and discrimination compounded poor coping strategies among SLWHIV. Stigma refers to the negative attitude towards individuals who may be associated with HIV while discrimination denotes resentment, labelling and unfair treatment of an individual or group of people based on their sexual orientation or health status (Kumar, 2023).

Self-efficacy Among SLWHIV

Self- efficacy is a term that describes the person's belief in his/her ability to handle tsks and a desire to achieve the anticipated goals (Bandura, 2012). From Health Belief Model perspective, research indicates that resilient SLWHIV demonstrate behaviour change by living a healthy lifestyle, practicing safe sex, attending church and/or gym (van Pelt & Ryen, 2015). However, staying at boarding or university residence for an HIV-positive student could be unbearable for academic excellence and mental health when there are no organised mechanisms (Mutumba et al., 2015). Therefore, it is crucial to reinforce the resilience among SLWHIV. In Kenya, one study reported that SLWHIV experienced a decreased resilience and low self-efficacy due to drug-related factors and health system factors such as unfriendly clinic hours to collect their antiretrovirals (ARVs), discrimination from roommates and fear of disclosing their health status (Apondi et al., 2021). Similarly, in Uganda, students had to hide their ARVs for their classmates not to know that they are HIV-positive. In that way, chances of their CD 4 cells to increase are less because they do not adhere to their medication (Kihumuro et al., 2021).

Fortitude and Sense of Coherence

Studies that continue to research about sense of coherence (SOC) agree that SLWHIV with high SOC view life optimistically and adapt well in their environment (Antonovsky, 1993; Hoho, 2014; Martela &Steger, 2016). Such group often displays strong values on spirituality, QOL and mental health (Pant, 2023) and in times of turmoil, find solace in prayer and gospel songs (Molato et al., 2024). Seligman et al. (2009) observe that with high SOC, they build strong human relations, become self-actualised and radiate positive emotions that Keyes and Simoes (2012) interprets as calmness, happiness, and satisfaction. Their positive coping in their surroundings is largely determined by frequent visits to the clinics for check-ups (Stockman et al., 2023). However, Earnshaw et al. (2018) found that a group of youth living with HIV skipped their ARVs and relied heavily on alcohol and illicit drugs due to lack of resilience because of growing up in impoverished communities.

RESEARCH METHODOLOGY

This research employed a qualitative approach in an interview comprising twelve participants (four heterosexual males, one gay and seven females), aged 22 to 33 years old. Participants volunteered to express their experiences in a natural setting and gave their informed consent to be audio-taped as suggested by Creswell (2013). One of the researchers sought the permission from the Research Higher Degree Committee as this research is part of her master's dissertation. The participants were recruited by means of snowball sampling technique. In snowball sampling, the researcher knows one participant who has the knowledge of the study, who, in turn, becomes the key-informant to recruit other participants who share the same characteristics (de Vos et al., 2011). In this case, all the participants were black HIV- positive students from one university campus, different faculties, South Africa. The participants gave their permission to be audio-recorded for further data analysis using Tesch's method (Berndt, 2020). To achieve confidentiality, the participants' dignity was protected by pseudonyms (P1, P2, P3 until P12). Guided by semi- structured interview schedule, the researchers probed the participants until they reached data-saturation. Trustworthiness was achieved by asking all the participants the same questions (confirmability). In keeping in line with the requirements of the study being credible, the researchers ensured that that the section on findings represents the reflections and experiences of the participants as contained in the data collection instruments.

FINDINGS

Emotional Support

Emotional support emerged as a one theme that encompasses resilience among SLWHIV when asked to explain how they maintain their resilience and coping strategies, academically. Two sub-themes were identified, namely, support group and self-acceptance, family support and support from nurses.

Support Group and Self-Acceptance

> *'I have gained mental strength to disclose my HIV status after I started attending a support group and receiving counselling from the peer-wellness leaders, here at the university.'* [P4, Male participant, aged 29].

> *'Sharing my own challenges with other students with the same health status gave me hope to continue with my studies and to adhere to my ARVs without feeling ashamed of myself'* [P7, Female participant, aged 26].

Family Support

It is undeniably proven in this study that the protective factors are essential components of a robust resilience for SLWHIV.

> *'I have disclosed my status to my family and friends. They all know that I live with HIV, and they have been supporting me all these years.'* [P2, Female participant, aged 24].

Support from the Nurses

Experience of the professional nurses on campus clinic was commended. This was evident in the extract:

> *'I was lucky to get support from the clinic. One nurse explained to me how to take treatment and advised me to eat healthy and to set an alarm for 7pm. She further went on stress the importance of preventing Tuberculosis and re-infection of the virus.'* [P1, Female participant, aged 23].

Adherence Self-Efficacy

Treatment adherence is a key health behaviour for patients' immune system, and mental health. This was evident when two participants demonstrated their coping strategies to live optimally.

> *'I have been taking my ARVs regularly and I do not even have an alarm to remind me because I need this treatment in my life so that the virus cannot multiply in my body.'* [P1, Female participant, aged 23].

> *'My roommate encouraged me to stick to my medication in order to raise my two children and obtain my degree since I am left only with one year to complete my B.Sc.'* [P11, Female participant, aged 28].

The next themes, purpose in life, personal growth and fortitude indicate that resilient SLWHIV demonstrate optimism and appreciation from their family for giving them strength to live purposefully.

Purpose in Life

> *'I have a goal in life and part of that is to finish my post graduate studies and start with my career. It is my choice based on the support of my family that I'm here so that I can achieve something for myself.'* [P2, Female participant, aged 24].

Personal Growth

> *'It is important to have education or be educated. When I found out about my status I was not at school but now I am looking forward to having a degree. I renew my strength by attending study groups'* [P11, Female, aged 28].

Fortitude

The participants further mentioned fortitude and determination to succeed.

> *'I see myself possessing inner strength and determination to succeed because I believe in God. To overcome discrimination despite my homosexuality and living with HIV, I draw strength from praying. I am grateful because I have never thought of dropping out or killing myself as I have a loving partner and supportive mom.'* [P12, Male, aged 24].

Participation in Sport and Suppression of Viral Load

To build a strong immune system, one male participant mentioned the importance of physical exercises. His response to the question: How do you build your resilience?

> *'I play soccer when there are residence tournaments and apart from that I jog regularly. Furthermore, I drink my ARVs regularly.'* [P3, Male participant, aged 22].

Another female participant echoed the importance of attending the clinic regularly. Her story of reinforcement and living positively was encouraged by a professional nurse, who commented on her taking my treatment properly and that her medical charts showed that she was adhering to treatment.

> *'I am full of courage as Sister M* applauded me for having demonstrated healthy lifestyle after she discussed my medical charts with me. She commented on my radiant skin and improvement on my weight. She told me that my CD4 cells are far above than the time I started taking the ARVs.'* [P11, Female participant, aged 28].

(Ir)regular Condom Use

Participants reported healthy sexual practices by mentioning safe sex. For example:

> *'I have condoms in my room, and I make sure that I practice safe sex to prevent re-infection of sexually transmitted diseases.'* [P3, Male participant, aged 22].

> *'I make sure that I take my treatment and protect myself and my HIV-negative partner by using a condom. I don't sleep around and with the help of certain modules from Psychology and Education, I learn a lot from my lecturers as they address the importance of adherence and behaviour -change.'* [P5, Male participant, aged 27].

The shortcomings of poor communication around the importance of safe sex when one is HIV + resulted in one female participant mentioning risk sexual behaviour.

> *'I cannot ask my partner to use a condom as I have fears that he might ask me why as I haven't told him about my status. My fear is that he will leave me if I can tell him.'* [Female participant, aged 21].

Stigma and Discrimination

Discrimination towards SLWHIV can be a barrier towards accessing health care facilities, maintaining good grades and being resilient. Participants highlighted to be cyber-bullied and coping by collecting their ARVs from other towns.

> *'I don't take my treatment from the hospital and clinics around as there are students coming there for treatment and they might see me and tell my girlfriend and others. I only collect my treatment from a nearby town, Fort Beaufort where there are no students coming by. Nobody knows me there.'* [Male participant, aged 28]. *'I started feeling rejected following a WhatsApp text from an unknown number that I deserve HIV as they have seen me at the clinic. In the text, the person mentioned that I deserved to contract HIV because I am gay and promiscuous.'* [P12, Male participant, aged 24]

Substance Abuse

Substance abuse is one coping mechanisms that contributes towards SLWHIV's impaired psychological well-being and resilience especially when they live in toxic environment as a 21-year-old female participant had this to say:

> *'I sometimes default because on weekends, I feel bored as there are no programmes aimed at keeping students motivated, hence, I would ignore taking my ARVs regularly. Instead, I would drink alcohol to forget about my HIV and hooked-up with men.'* [P8, Female participant]

DISCUSSION

An overwhelming emotional support from the family members, roommates and professional nurses emerged as pivotal not only in building resilience among SLWHIV but awakening their search for meaning, adherence self-efficacy, sense of coherence and personal aspirations as more than half of the participants practiced safe sex and disclosed that they have serodiscordant relationships. In a serodiscordant relationship, one partner is HIV- positive and the other is HIV-negative (Alem et al., 2020; Coleman-Sarfo & DeGraft, 2017). To maintain one's immune system as a SLWHIV is key to resilience, longevity and suppression of the viral load as one male participant emphasised that he plays soccer and jog regularly. A female student concurred by mentioning that because of resilience and adherence to the ARVs, she looked beautiful and had gained weight unlike the time she started taking the treatment. According to Hoho (2014), the effectiveness of support structures for the SLWHIV contributes towards living positively with HIV and aspiring to reach personal goals as purported by Ungar et al. (2021). The way the participants demonstrated commitment to adherence to their ARVs, could be equated to what is done in Malawi to build resilience amongst its youth where peers have normalised checking on their friends living with HIV (Dow et al., 2018). Similar results have been reported by SLWHIV attending the University College Hospital in Ibadan, Nigeria. They expressed improved quality of life (QOL) because the ARV clinic provides a full spectrum of care, namely, management of opportunistic infections such as Tuberculosis (TB), monitoring of CD4 cells, intervention to reduce mother to-child- transmission, health education and access to prophylaxis to prevent infections (Fosalire et al., 2012). Hoho and Kheswa (2017) are of the opinion that there should be more of positive living among SLWHIV because when they have accepted their HIV status and stick to their drug regimen, they resiliently counteract the stigma and stereotypes associated with the virus. In that way, the 2030 Agenda for Sustainable Development to end AIDS pandemic could be achieved as it has been claimed by the General Assembly of the United Nations (2015). The role played by Student Counselling Unit, professional nurses and support groups mentioned by participants in this study about adherence to treatment reignited their sense of coherence, purpose in life, self-acceptance.

A strong sense of coherence and fortitude emerged often during the interviews and could be regarded as building components of resilience because the SLWHIV are open about their health status, attend church and strive for their personal goals. A typical example stemmed from one female participant who indicated to be living for her two children that she would adhere to her treatment and is determined to complete her studies. Encouragement from the lecturers whose modules address some HIV -related topics are undeniably part of extrinsic motivation for SLWHIV to improve their QOL for excellence, academically. Also, to defy cyberbullying requires inner strength as it is associated with character defamation. One participant who classified himself a sexual minority group or LGBTIQ, mentioned that he overcame cyberbullying (discrimination) because of self- love, self-acceptance, and that of sexual partners whose love is unconditional. Having stable life-partners could be rewarding because in Southern Nevada, men who have sex with other men (MSM) attributed their fortitude and resilience to reciprocated love shared with their loved ones and family members (Ranuschio et al., 2023).

Regarding the stigma and discrimination, some participants expressed fear to be known that they are HIV-positive. They indicated that they travelling to the clinics in other towns to collect their ARVs. A sociologist, Erving Goffman, postulated the stigma theory and posits that a society may attribute less value and hatred to an HIV- positive individual once they know of their health status.

(Goffman, 1963). Hence, the advice from the peer counsellors or nurses to keep ones HIV-status to oneself is important until one's mental health and resilience- effect are intact to share their health status.

However, there is a demonstration of lack of resilience and weak locus of control in some of the participants as they are vulnerable to risk sexual behaviour. Fear of disclosing one's health status by one female participant is an indication of how patriarchy still perpetuates gender -based violence in the institutions of higher learning where students live in cohabitation. Explaining such a social ill is Mashabela and Kheswa (2020) who are concerned that SWLHIV may have multiple sexual partners and continue engaging in unsafe sex for fear of being rejected or physically abused by their male partners. Alternatively, irregular condom- use while one knows one health status could be poverty among women who are HIV+ since they benefit from exchanging '*flesh to flesh sex'* for money. For example, in Fortaleza, Northeast Region of Brazil, students from poor family backgrounds were vulnerable to re-infection of STIs including HIV as compared to their counterparts whose parents were employed (Costa et al., 2020). In other words, empowerment programmes for SLWHIV are imperative to curb the spread of HIV as not all SLWHIV are resilient or have self- acceptance and sense of coherence. The same goes for another female students who indulges in risk sexual behaviour due to boredom on campus during weekends and ends up in hook-ups.

CONCLUSION

The study concludes that resilience is multifaceted and when SLWHIV have support from their sexual partners and are open about their status to friends and family members, they are most likely to complete their studies, exude positive energy, accept themselves and cope in toxic environments.

RECOMMENDATION AND LIMITATIONS

Although this study generated new knowledge and achieved its research objectives, it has some shortcomings. Firstly, the study was confined to participants from one university located in a rural area in the Eastern Cape, South Africa. Secondly, qualitative studies are subjective and owing to a small number of participants, there are areas, which were not explored. For instance, in the quantitative study, the demographical information would have sought the family background, the relationship between the participants' academic performance and resilience by gender, and age, amongst others. In future, there should be more studies on the coping strategies that the supporters employ to sustain resilience amongst the SLWHIV.

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INVESTIGATING CRITERIA FOR BECOMING A MASTER TECHNICIAN IN THE AUTOMOTIVE RETAIL INDUSTRY

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Abstract

As the automotive industry evolves due to rapid technological advancements, the role of a master technician has become increasingly critical in ensuring the effective diagnosis, maintenance, and repair of modern vehicles. This study investigates what would be a comprehensive set of requirements and qualifications necessary for individuals aspiring to attain the esteemed status of a master technician within the automotive retail sector. Furthermore, the study investigates the impact of advancements in electric and autonomous vehicle technologies on the skill requirements for master technicians. The research adopts a qualitative approach, using interviews with industry experts, such as current master technicians, and educational institutions offering automotive training programmes. The findings of this study reveal that diagnostic, electrical, mechanical, and computer competencies have become a requirement for becoming a master technician in the automotive retail industry.

Keywords: Master technician, diagnostic, electrical, mechanical, apprenticeship, mentorship

INTRODUCTION

The automotive industry has been undergoing rapid transformation driven by technological advancements, evolving consumer preferences, and stringent environmental regulations (Kamran et al., 2022). In this dynamic landscape, the role of automotive technicians has become increasingly pivotal, requiring a combination of specialised skills, knowledge, and expertise (Andriyani, et al., 2020). As vehicles become more sophisticated, the demand for highly skilled professionals capable of diagnosing and repairing complex automotive systems is on the rise (Andriyani et al., 2020).

Gamst and Pisinger (2024) state that one significant milestone in an automotive technician's career is achieving the status of a master technician, because a master technician possesses advanced skills and comprehensive knowledge across various automotive systems, demonstrating a mastery of the intricate workings of modern vehicles. Therefore, this status not only signifies a technician's proficiency but also opens avenues for career advancement and increased responsibilities within the automotive retail industry.

This study aims to investigate the requirements necessary for individuals aspiring to become master technicians in the automotive retail industry. The study delves into the specific technical competencies such as diagnostic, electrical, mechanical, and computer skills. Additionally, the study explores the evolving nature of these requirements in response to the industry's technological advancements, emphasising the importance of continuous learning and adaptability in the discipline of master technicians.

PROBLEM INVESTIGATED

Technicians face a myriad of challenges on their pathway to becoming master technicians (Awolola & Olayiwola, 2021). Despite the increasing complexity of modern vehicles and the demand for highly skilled professionals, research highlights that there is a noticeable shortage of master technicians and unclear structured and comprehensive training programmes available for individuals aspiring to achieve mastery in the automotive retail industry (Gamst & Pisinger, 2024; Rowe, 2019). As such, Hodges (2019) opines that this shortage encompasses various aspects, including insufficient access to cutting-edge technologies, limited opportunities for hands-on experience, and a shortage of mentorship programmes within the automotive retail industry. Additionally, Rowe (2019) emphasises that the traditional education systems often struggle to keep pace with the dynamic changes in automotive technology, leading to a mismatch between the skills acquired by technicians and the industry's evolving requirements.

Furthermore, Idowu (2023) stresses that the absence of a clear career pathway and recognition for master technicians hinders the motivation and commitment of individuals seeking excellence in their field. However, the automotive retail industry is characterised by rapid advancements in electric vehicles, autonomous systems, and digital interfaces, which demand a specialised and continuously updated skill set that is currently not adequately addressed in the existing educational structures (Maličková et al., 2022). Therefore, addressing these challenges is critical not only to meet the growing demand for highly skilled technicians but also to ensure that the workforce is equipped with the expertise required to navigate the complexities of the modern automotive landscape. For these reasons, establishing a well-defined and industry-aligned pathway to becoming a master technician is imperative for the sustained success and competitiveness of individuals within the automotive retail industry. Against this background, the question guiding this study is: *What are the requirements for becoming a master technician in the automotive retail industry?*

RESEARCH OBJECTIVES

The main research objective for the study is to investigate the set of skills and qualifications required for an individual to become a master technician in the automotive retail industry. To achieve the main objective, the study aims to explore the competencies and strategies, as well as the industry trends as well as evolving technological demands that influence the journey towards achieving master technician status. Through a comprehensive investigation, the study seeks to provide valuable insights into the essential competencies required for individuals aspiring to become master technicians in the dynamic and rapidly evolving automotive retail industry.

Literature Review

This study covers an extensive literature review on various competencies and strategies to become a master technician in the automotive retail industry. These competencies include diagnostic skills, electrical skills, mechanical skills, and computer skills followed by strategies such as an apprenticeship programme and mentorship programme.

Competencies

Since this study is focusing on skills requirements, the following subsections elaborate on these concepts.

Diagnostic Skills

A diagnostic skill refers to the ability to accurately identify and understand problems, issues, or conditions, often through a process of analysis and evaluation (Altinisik & Hugul, 2020). Makarova et al. (2018) argue that since the invention of the first cars, diagnostic systems have existed in varying degrees of technological complexity. These technological complexities have brought about the development of modern equipment to improve visual inspection and expand the breadth of the diagnostic process, and the primary issues with the methods of automotive diagnosis used in current modern of vehicles are:

- Excessive diagnostic time and expense caused by automakers' lack of uniformity;
- Diagnosis of multifaceted systems is a challenging task due to recent electric and electronic (E&E) developments;
- Defect trouble code (DTC) accuracy is insufficient to identify the issue's origin; and
- Difficulty in identifying component malfunctions due to increased sophistication of electronic control systems.

In essence, diagnostic skills are essential to the timely and accurate diagnosis of vehicle problems in the retail automotive business (Mostafa et al., 2018). Abramek and Prajwowski (2018) state that diagnosing issues requires a deep understanding of the interplay between various systems and the ability to interpret diagnostic codes generated by onboard computers. Additionally, Akuh and Agyeman (2019) emphasise that it is imperative that technicians stay abreast of the latest advancements in automotive technology, as new features and innovations are introduced regularly. Therefore, effective diagnostic skills are paramount in reducing the turnaround time for repairs, enhancing customer satisfaction, and maintaining a competitive edge in the automotive retail sector (Park et al., 2019).

Moreover, the importance of diagnostic abilities goes beyond technical expertise to include effective customer service and communication (Altinisik & Hugul, 2020). Clear communication fosters trust and transparency, enabling customers to make informed decisions about the necessary repairs (Yáñez-

Galdames et al., 2023). While correctly identifying problems during first inspections and reducing the need for extra diagnostic procedures, diagnostic abilities help to generate a favourable client experience (Buttle & Maklan, 2019). In an industry where client happiness is of utmost importance, the incorporation of robust diagnostic abilities into the servicing procedure guarantees the solving of vehicle issues and is crucial in fostering enduring connections between automobile dealers and their customers. Therefore, in the automotive retail industry, improving diagnostic abilities are crucial for both technical proficiency and consumer pleasure (Jiraphanumes et al., 2023). This diagnostic capability is viewed by industry experts as one of the important skills for becoming a master technician.

Electrical Skills

According to Opeyemi and Chibueze (2022), the phrase ‘electrical skill’ refers to the specialised knowledge and abilities required to understand, diagnose, and repair the electrical systems found in modern vehicles. This encompasses a broad range of competencies, from basic wiring and circuitry to more complex components like engine control units and infotainment systems. Electrical skills also include diagnosing and repairing issues in electric powertrains, battery systems, and electronic control units. While traditional mechanics have focused on mechanical and hydraulic systems, modern automotive technicians must be adept in electrical and electronic systems (Helmus et al., 2022). In the automotive retail industry, electrical skill is crucial not only for vehicle maintenance and repair but also for advising customers on electrical-related technical issues and guiding them in selecting appropriate automotive products and services (Emmanuel & Victor, 2022).

The need for specialist electrical abilities in the automotive retail industry has grown dramatically due to the growth of the automotive industry, especially with the introduction of electric vehicles (EVs) and sophisticated electronic systems in contemporary automobiles (Opeyemi et al., 2022; Hughes & Drury, 2019). The trend toward EVs is arguably the most significant milestone that calls for improved electrical proficiency in the automotive retail industry (Moon et al., 2018). Additionally, global sales of electric vehicles rise rapidly, with major manufacturers committing to electrified futures. This transition requires automotive retail experts to understand and effectively communicate the complexities of EV technology, such as battery life, charging infrastructure, and energy efficiency (Morton et al., 2018). Furthermore, modern vehicles are equipped with advanced electronic systems, including infotainment, navigation, driver-assistance technologies, and sophisticated engine management systems (Ehsani et al., 2018). Electrical skill has become a building criterion for becoming a master technician in the automotive retail industry (Denton, 2020). It is for these reasons that the emphasis is on automotive retail experts to comprehensively understand modern vehicle features to provide accurate information and troubleshooting support to customers. Therefore, the increasing electrification and technological sophistication of vehicles have made electrical skills an indispensable part of the automotive retail industry.

Mechanical Skills

As conventional automotive parts transform into electronic systems, suppliers and automotive retailers need to acquire proficiency in digital technologies to stay competitive (Gumiel et al., 2022). Mechanical skills are essential for technicians and mechanics responsible for diagnosing and repairing vehicles, conducting routine maintenance, and addressing technical issues (Patiko et al., 2023). Moreover, proficient mechanical skills are necessary to accurately identify and fix mechanical problems, ranging from engine malfunctions to brake issues (Okorieocha et al., 2018). In the automotive retail industry, mechanical skills play a crucial role in ensuring the efficient functioning of various operations (Intarakumnerd, 2021), including vehicle inspection and quality control, ensuring that vehicles meet safety standards before being sold to customers. As technicians progress in their careers, the mastery of intricate systems, advanced diagnostics, and emerging technologies becomes crucial (Muhammad, Kerbache & Elomri, 2022). Master technicians, therefore, build upon their initial mechanic skills by delving into specialised areas, acquiring in-depth knowledge and expertise that goes beyond basic maintenance.

Beyond the direct technical aspects, mechanical skills are instrumental in enhancing customer satisfaction and trust (Kankam-Kwarteng et al., 2016). Sales representatives with a solid understanding of the mechanical aspects of vehicles can effectively communicate with customers, explaining technical details in a comprehensible manner and addressing concerns about the performance and reliability of the vehicles (Xu et al., 2018). Moreover, this knowledge fosters a sense of confidence in customers, as they perceive the sales team as knowledgeable and trustworthy. In this way, mechanical skills not only contribute to the operational efficiency of the automotive retail industry but also play a pivotal role in building and maintaining positive relationships with customers. The journey from vehicle mechanic to master technician involves continuous learning, hands-on experience, and a commitment to staying abreast of evolving automotive technologies, ultimately shaping individuals into highly skilled professionals capable of tackling complex automotive challenges. Hence, Rowe (2019) states that as technology advances, the automotive retail industry also requires master technicians with up-to-date knowledge of the latest mechanical systems and electronic components in modern vehicles, highlighting the ongoing importance of mechanical skills in this dynamic field.

Computer Skills

In the automotive retail industry, computer skills have become a critical requirement for master technicians, as contemporary automobiles rely heavily on complex computerised systems and diagnostic tools (Intarakumnerd, 2021). As Audu et al. (2019) postulate, proficiency in computer skills allows technicians to navigate electronic service manuals, interpret diagnostic codes, and utilise cutting-edge diagnostic equipment, thereby enhancing their ability to diagnose and repair intricate problems in today's highly computerised vehicles. According to Rahim et al. (2021), the automotive retail industry is experiencing a paradigm shift towards smart and connected vehicles, making computer skills imperative for master technicians. As vehicles become more sophisticated, incorporating features like advanced driver-assistance systems (ADAS), computerised engine control units (ECUs), and in-vehicle entertainment systems, technicians must possess the technical know-how to troubleshoot and repair these intricate components. Computer skills enable master technicians to stay abreast of the latest automotive technologies, ensuring they can effectively service and maintain the diverse electronic systems within modern vehicles (Ehsani et al., 2018). Consequently, the demand for master technicians with strong computer skills has risen, reflecting the industry's recognition of the pivotal role these skills play in maintaining and repairing contemporary automobiles.

Computer skills are integral for technicians to engage with manufacturers' diagnostic tools and software, facilitating efficient communication with the vehicles they service (Krzywdzinski, 2017). Many automakers provide proprietary diagnostic systems that require technicians to navigate complex interfaces and interpret data accurately (Andriyani et al., 2020). Proficient computer skills enable technicians to effectively communicate with these systems, diagnose issues swiftly, and implement precise solutions (Rowe, 2019). Moreover, the ability to leverage computerised diagnostic tools streamlines the repair process, reducing downtime and enhancing overall service efficiency in the automotive retail industry. Therefore, computer skills are inextricably linked to the role of master technicians in the automotive retail industry. Master technicians equipped with strong computer skills are better positioned to excel in their roles, ensuring they can adapt to the evolving landscape of automotive technology and provide high-quality service in an industry that continues to embrace digital advancements.

Mentorship

The role of mentorship programmes in transforming technicians into master technicians within the automotive retail industry is both critical and transformative. Mentorship, as a structured process of professional guidance and knowledge transfer, bridges the gap between theoretical learning and real-world application (Chigbu & Nekhwevha, 2021). For technicians in the automotive industry, where technology and techniques are rapidly evolving, mentorship programmes provide an invaluable platform for hands-on learning and experience-sharing (Shittu & Adeosun, 2022). These programmes not only accelerate the learning curve but also imbue mentees with the confidence and skills necessary to tackle complex automotive challenges, thereby fostering a culture of continuous improvement and innovation.

Mentorship in the automotive retail industry serves as a catalyst for personal and professional development (Barnes, 2017). Seasoned master technicians, with their wealth of experience and expertise, act as mentors to guide less experienced technicians through the intricacies of automotive repair and maintenance (Kolasa, 2018). Kolasa (2018) adds that this one-on-one guidance helps in identifying and nurturing the unique strengths of each technician, encouraging them to excel in their areas of interest. Thus, through practical demonstrations, shared troubleshooting sessions, and regular feedback, mentors help develop a deep understanding of automotive systems, diagnostic techniques, and customer service excellence among their protégés.

Moreover, Barnes (2017) explains that mentorship programmes within the automotive retail industry are instrumental in ensuring the transfer of proprietary knowledge and specialised skills. As vehicles become more sophisticated, with the integration of advanced electronics, hybrid systems, and autonomous technologies, the role of mentorship becomes increasingly important (Maghfiroh et al., 2021). Mentors equip mentees with the latest technological competencies, ensuring that the workforce remains on the cutting edge of automotive advancements. Thus, the role of mentorship extends beyond skills transfer, playing a key role in shaping the future leadership of the automotive retail industry (Barnes, 2017; den Boer et al., 2021). Through mentorships, technicians learn not just technical skills, but also critical soft skills such as problem-solving, communication, and teamwork (Venkat et al., 2023). Hence, mentorship programmes cultivate a sense of belonging and loyalty, reduce turnover rates, and prepare technicians for leadership roles within the organisation. Therefore, as technicians evolve into master technicians and eventually mentors themselves, the cycle of knowledge sharing and professional growth continues, ensuring the sustainability and success of the automotive retail industry for generations to come.

RESEARCH METHODOLOGY

The exploratory and descriptive research designs that are qualitative in nature were employed for this study. Both exploratory and descriptive research designs were deemed appropriate for the clarification of a concept, in this case, investigating the criteria to become a master technician in the automotive retail industry. Moreover, exploratory and descriptive research designs made it possible to gain deeper understanding into different criteria and steps that technicians take to become a master technician in the automotive retail industry. A deeper insight of the investigation was gained from a qualitative perspective. Given the nature of the topic under investigation, Yin (2017) states that deeper exploration of the subject is made possible by qualitative research. Considering the research designs and method employed in this study, interpretivism and post-positivism research paradigms were adopted since the research concentrated on investigating issues while including the majority's experiences and announcing the conclusions of what the majority deems acceptable (Panhwar et al., 2017). Furthermore, the two research paradigms are more concerned with in-depth variables and aspects associated within a context, and they view humans as distinct from physical phenomena in that they provide greater depth in meaning, with the premise that humans cannot be investigated in the same way that physical phenomena can (Alharahsheh & Pius, 2020).

Based on the exploratory and descriptive nature of this study, non-probability sampling judgement was employed. Compared to probability sampling, non-probability sampling is typically less expensive and easier to apply (Ruel, 2017). Purposive sampling, which is a non-probability sampling strategy was deemed to be appropriate for this study. Campbell et al. (2020) state that this type of non-probability sampling strategy is employed when sample elements are chosen based on the researcher's assessment and judgement. Therefore, the researcher employed his own judgement in selecting participants from the population to take part in this study (Gneezy, 2017).

The population of this study involved all automotive retailers operating in the Nelson Mandela Bay area, including Uitenhage/Kariega and Dispatch in South Africa. Bryman and Bell (2014) define the population as a collection of entities such as individuals, nations, cities or municipalities, regions, businesses, and institutions from which a sample will be taken, whereas the target population is defined as a refined group of participants from the entire population within which a researcher wants to collect data, while the accessible population refers to the segment of the population to whom the researcher has reasonable access (Murphy, 2016). Therefore, in Nelson Mandela Bay, there are fourteen (14) automotive retailers comprising the population for this study. According to Etikan et al. (2016) homogeneous sampling is a form of purposive sampling that focuses on participants who share similar characteristics such as culture, jobs, years of experience, etcetera. Guided by homogeneous criteria and to achieve the primary objective of this study, the target population of this study was selected according to the following characteristics:

- The automotive retailers must be operating in the Nelson Mandela Bay area (Gqeberha, Uitenhage/Kariega, and Dispatch).
- The automotive retailers must be operating in the industry for more than five years.
- The automotive retailers must have service departments where technicians operate.
- These automotive retailers should have a good reputation in the industry at large.
- Automotive retailers operating outside Nelson Mandela Bay area were not considered to participate in the current study.
- Automotive retailers with less than five years in operation in the automotive retail industry were not considered.

A semi-structured face-to-face interview technique was utilised as the primary data collection source. The technique was used to gain an in-depth understanding of the subject under investigation. DeJonckheere and Vaughn (2019) state that the main objective of utilising semi-structured interviews to collect data is to gain in-depth information from important informants who have personal experiences, attitudes, perceptions and beliefs about the issue of interest. With the participants' consent, every interview was captured on a digital recorder and subsequently transcribed. Furthermore, a research diary was utilised to document the researcher's personal reflections after each interview. The data was analysed using thematic analysis since the research was contextual in nature. Thematic analysis is a method for locating, examining, and summarising themes or patterns in- depth (Braun & Clarke, 2016).

RESEARCH FINDINGS

Tesch's model (thematic analysis) was used to analyse the results from the questions in terms of three primary themes and the underlying categories that supported them.

Theme 1: Technical (Technician) Requirements

Theme 1 is in line with the main objective of this study, namely: 'To investigate the set of skills and qualifications required for an individual to become a master technician in the automotive retail industry.' The participants acknowledged that technical requirements such as diagnostic, auto-electrical, mechanical, computer skills, and mentorship are important requirements for various categories of technicians to become master technicians. The participants especially emphasised diagnostic skills as a special requirement that cuts across different categories of technicians in the automotive retail industry. Four categories emerged from the first theme and are explained below.

Category 1: Diagnostic Skills

Most participants highlighted that there are diagnostic technicians in the automotive retail industry, but there is a shortage of diagnostic skills in the job market. The following direct quotations from the in-depth interviews with the participants confirm the findings regarding category 1:

- 'We have all these skills; however, different technical staff will offer different skills sets including diagnostic skills and auto-electrical skills especially with premium brand vehicles, as these skills are scarce in the market.'.
- 'There's definitely a shortage of diagnostic technicians specifically that's on the electrical side.'
- 'We suffer a lot with finding diagnostic technicians in the market. I mean, the market is bad out there.'

Category 2: Electrical Skills

In the in-depth interviews conducted, the participants highlighted that different technical employees offer different technical skills and electrical skills is one the most important skills in the automotive retail industry. The following direct quotations from the in-depth interviews with the participants confirm the findings regarding category 2:

- '... different technical staff will offer different skills sets including diagnostic skills and auto-electrical skills especially with premium brand vehicles, as these skills are scarce in the market.'
- 'Yes, without any doubts we get complicated electrical issues in the premium vehicles and that requires electrical technicians who are highly trained to handle the problem.'
- '... nobody can drive a car without electricity and that is the main component of any car to function.'

Category 3: Mechanical Skills

Most participants acknowledged that most of the vehicles that are serviced in automotive retailer service centres have mechanical faults. The participants further mentioned that mechanical skills are as important as other technical skills. The following direct quotations from the in-depth interviews with the participants confirm the findings regarding category 3:

- '... the latest brand of vehicles easily gets affected by mechanical issues.'
- 'As soon as the vehicle is diagnosed with mechanical issues, mechanical technicians must step in.'

Category 4: Computer Skills

The participants acknowledged that computer skills are important for the success of other technical skills. Computer skills are essential to diagnose electrical and mechanical issues in a vehicle. The following direct quotations from the in-depth interviews with the participants confirm the findings regarding category 4:

- '... without any doubt, computer skills are a cornerstone of any technician in this industry.'
- 'When I started working here, my manager would always push me to take short courses in computer science to understand the dynamics of modern vehicles.'
- '… When I first diagnosed a car, I had no choice but to use complicated software diagnostics that I had to learn on the job.'

Theme 2: Transferability of Knowledge

The participants acknowledged that transferability of knowledge through mentorship is an important requirement for various categories of technicians to become a master technician. One category emerged from the second theme and is explained below.

Category 1: Mentorship

From the in-depth interviews conducted, the participants demonstrated an understanding of knowledge transfer by emphasising the importance of a mentorship programme. The participants in the current study strongly believed that transfer of knowledge can be achieved through various layers of mentorship including job rotation, one-on-one training, and collaboration with an outside organisation within the same industry. The following direct quotations from the in-depth interviews with the participants confirm the findings regarding category 1:

- 'The transferability of knowledge and experience is easily identifiable between a technician and apprentice.'
- 'The technician is required to perform the role of mentor, and this transfer of knowledge and skills is recorded and forms part of the practical component of a formal mentorship programme.'
- 'Uhm, another important thing that I want to add is the rotation of our apprentices, so they don't become comfortable in one job.'
- 'So, we have what we call a Tavcor selling programme where experienced workers get into a classroom and share information with inexperienced people that are part of the YES programme.'

DISCUSSION AND CONCLUSION

From the above findings, it is evident that automotive retailers use specific strict criteria to appoint master technicians in the industry. One of these criteria is undergoing a thorough mentorship programme where technicians learn not just technical skills but soft skills such as problem-solving.

This finding is in line with Venkat et al.'s (2023) assertion that through mentorship, technicians learn not just technical skills, but also critical soft skills such as problem-solving, communication, and teamwork. Although automotive retailers acknowledge there is a shortage of diagnostic skills in the industry, it is also evident that diagnostic skills are an important criterion for becoming a master technician to enhance customer satisfaction and increase a competitive edge in the automotive retail industry. This finding agrees with Park et al. (2019), who believe that effective diagnostic skills are paramount in reducing the turnaround time for repairs, enhancing customer satisfaction, and maintaining a competitive edge in the automotive retail industry.

The findings of this study also show that electrical knowledge is of paramount importance for master technicians to deal with electrical vehicle issues in the automotive retail industry. Due to the growth of the automotive retail industry and introduction of EVs, electrical skills have become the important criterion for master technicians to advise customers about electrical-related issues. This finding is in line with Opeyemi and Chibueze (2022) and Hughes et al.'s (2019) assertion that the need for specialist electrical abilities in the automotive retail industry has grown dramatically due to the growth of the automotive industry, especially with the introduction of electric vehicles (EVs) and sophisticated electronic systems in contemporary automobiles. Furthermore, the findings clearly show that mechanical skills are as important as other technical skills due to increased mechanical faults in vehicles. Mechanical skills are of paramount importance for mechanical repairs, routine maintenance and addressing maintenance issues. Patiko et al. (2023) agree that mechanical skills are essential for technicians and mechanics responsible for diagnosing and repairing vehicles, conducting routine maintenance, and addressing technical issues. The findings also revealed that computer skills an important criterion for master technicians to stay ahead of automotive technological developments. Moreover, computer skills are regarded as the cornerstone for all technical skills in the automotive retail industry to effectively diagnose and service EVs. This finding is supported by Ehsani et al.'s (2018) assertion that computer skills enable master technicians to stay abreast of the latest automotive technologies, ensuring they can effectively service and maintain the diverse electronic systems within modern vehicles.

In conclusion, this study makes a positive contribution to the automotive retail industry by providing an integrated picture of the criteria to become a master technician in the automotive retail industry. The participants in this study perceive diagnostic, electrical, mechanical skills, and mentorship as important criteria to become a master technician in the automotive retail industry and as areas that should not be ignored.

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FACTORS AFFECTING SPECTATOR ATTENDANCE OF PROFESSIONAL WOMEN'S SOCCER MATCHES IN SOUTH AFRICA

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Abstract

This study examined factors affecting spectator attendance at professional women's soccer matches in South Africa. The study is descriptive and correlational in nature following a quantitative research approach. The target population comprised spectators of professional women's soccer in Gauteng province. A snowball sampling technique was used to identify the participants fitting the predetermined sample standards. Relevant areas, research methods and data-acquiring procedures were employed. A total of 316 properly completed study questionnaires were received and analysed. Factor analysis was performed to determine underlying motivational factors of spectator intention to attend professional women's soccer matches. Correlation analysis was conducted to establish the strength and direction of relationships between the study constructs. Furthermore, regression analysis assessed the predictive association between the study's variables. The study results revealed that identification, vicarious achievement, involvement, social interaction and perceived value variables had a significant relationship with spectator intentions to attend women's professional soccer matches. This study contributes valuable insights to the scant women's sports spectator literature. It highlights the spectator behavioural patterns, which aid sports organisation owners and federations with the knowledge of how best to elevate women's soccer sports in an emerging South African sporting market.

Keywords: Identification, involvement, perceived value, social interaction, vicarious achievement

INTRODUCTION

The women's soccer sports market has seen growth with the professionalisation of leagues, and consequently, match spectatorship has improved. Thus, determining which factors attract spectators to women's soccer events is crucial for the clubs' continued survival, especially in a global competitive sporting environment (Kim et al., 2021). Guest and Luijten (2017) state that it is very important for soccer club owners and federation administrators to understand what motivates individuals to attend women's sports events compared to their dominant male counterparts, more so from an emerging market perspective. This is crucial because the spectators are the lifeblood that keeps the clubs afloat (Aycan et al., 2014). Determining what influences the spectator's intentions to attend professional women's soccer events can help develop competent marketing strategies to keep the spectators coming to the matches. Pamani (2017) alludes that several demanding issues in the South African football fraternity encourage spectator attendance and limited knowledge on the reasons why people devote their valuable time and money to support women's football is very scarce. Accordingly, this study investigates the motivational factors that influence the spectators' consumption patterns (Stander & Van Zyl, 2016).

Despite the various efforts the events organising committees and sports publicists put forward, soccer match attendance remains one key research issue, especially in developing markets (Mathidza, 2011). Attendance is regarded as the main factor that can improve the standard of football, both financially and in performance (Kim & Mao, 2021). Various studies investigated what motivates spectators to attend sports events (Ramchandani et al., 2017; Namethe et al., 2021). Aycan et al. (2014) stated that the behavioural intentions of soccer spectators are vital to determining what influences their intentions, which may be helpful for soccer clubs to improve or develop proficient approaches to event attendance. Although there are many sporting codes in South Africa, soccer remains the most supported and understood sport by most individuals. However, the spectators pay more attention to well-established soccer leagues (DSTV Premier Soccer League) and teams including (Orlando Pirates, Mamelodi Sundowns and Kaizer Chiefs) while neglecting professional women's soccer events. Hence, this study seeks to examine the factors that affect spectator attendance at professional women's soccer matches in South Africa.

Literature Review

Motivational Factors Influencing Spectator Attendance

Motivation is the driving force within individuals that triggers their attitudes of strong will to act (Sovendle, 2019). Hence, sports marketers need to understand what motivates individuals to attend professional women's soccer matches. Historical scholars have identified numerous motivational factors driving sports consumption, be it in rugby, cricket, or soccer. For example, *team identification* (Jang et al., 2018; Lee & Hur, 2019; Prayag et al., 2020), *vicarious achievement* (Nakpanom, 2020; Kim & James, 2022), *involvement* (Qian et al., 2017; Yun et al., 2021), *social interaction* (Parganas et al., 2017; Lee & Hur, 2019), *perceived value* (Choi et al., 2018; Ma & Kaplanidou, 2019) and *intention to attend* (Choi et al., 2018; Park et al., 2019). Based on the motivation for sport consumption theory, spectators of a specific sport code have dissimilar underlying psychological motives as to why they follow and consume a particular sport (Karakaya et al., 2016). Because people are diverse, their motives to follow the sport will differ (Frederick et al., 2016). As a result, sports spectators will have diverse motives as to why they are attracted. This study has identified *team identification, vicarious achievement, involvement, social interaction, perceived value, and intention to attend* soccer matches as motivational factors based on their importance to individual and group spectators as indicated by the literature review.

Team Identification

Team identification is described as a spectator's personal commitment and emotional involvement with his or her sport team (Fridley et al., 2023). Kim and Gower (2023) mention that amid psychological factors, team identification may be the most significant variable in influencing perceptions of the service experience. Spectators with prominent levels of identification tend to display different behaviours than those with low levels of identification (Cunningham & Eastin, 2017). Other researchers studied the relationship between team identification and intention to attend sports events. For instance, Katz et al. (2020) and Kim et al. (2020) found that team identification has a positive relationship with intention to attend soccer events. Hence this study proposes;

H_1: Team identification has a positive relationship with the intention to attend professional women's soccer matches.

Vicarious Achievement

The need to attain and achieve can serve as a key drive for behaviour in highly competitive and results-oriented environments. However, an individual does not necessarily do this directly; feelings of success can be achieved indirectly through the successes of others, and sport brings about an ideal avenue for this achievement (Nakpanom, 2020). This is also referred to as vicarious achievement and designates the motive that a spectator has social prestige, self-esteem and empowerment that emanates through a connection with a sports team (Stander & Van Zyl., 2016). The vicarious achievement motives suggest that spectators seek achievement vicariously by affiliating with a sports team through identification (Kim et al., 2021). For example, by watching the teams and a player win, spectators vicariously experience a sense of achievement via their identification with those who succeed in sports. This motive may also increase team support and serve as a mechanism to connect spectators and teams (Spinda et al., 2016). A case has been made that individuals who fulfil their need for achievement through sports attend a sports event only if they see the results as more relevant to their self-concept (Reimers et al., 2018). This notion has been supported by Kim et al. (2021), whose results found that vicarious achievement showed significant influences towards intention to attend sport events. Hence this study proposes:

H_2: Achievement has a positive relationship with the intention to attend professional women's soccer matches.

Involvement

The concept of involvement has been used mostly in consumer behaviour in relation to marketing research over the years (Kim et al., 2020; Yun et al., 2021). In the last decade, involvement has been applied in management, leisure, and recreation to describe sport consumption behaviour and choice-making (Kartika & Mohyi, 2019; Mabasa, 2022). In relation to sports consumer motives, involvement is viewed by Silveira et al. (2019) as a useful concept for understanding spectator attitudes and consumption behaviours. However, Hallmann et al. (2018) are of the view that involvement is useful because the more involved attendees, such as fanatics, have a greater variety of motivational profiles compared with less involved, casual attendees. Sports spectators are different, often possessing prominent levels of involvement and an emotional attachment to sport (Kim et al., 2021). Pan et al. (2018) consider involvement as a hidden motivation, reason, or interest concerning a certain leisure activity or associated services, often caused by a specific stimulus or situation. Several scholars have found that involvement has an important impact on spectators' consumption behaviour (Qian et al., 2017; Silveira et al., 2019). Hence this study proposes;

H_3: Involvement has a positive relationship with the intention to attend professional women's soccer matches.

Social Interaction

Socialisation has to do with interactions people have with others including family, friends, and other spectators. If an event is perceived as presenting better opportunities for socialisation, it is likely to be considered more favourably by potential attendees (Hautbois et al., 2020). Socialisation is widely acknowledged as a fundamental motive for sport consumption (Allison & Pope, 2021) and is closely related to the desire for group affiliation, camaraderie, and group identity (Chiu et al., 2019). Initially, sports events were always about people's interaction. Repeatedly, family or groups of friends would attend an event together and use the provided content as a platform for their social interaction with one another (Neus et al., 2019). Social interaction is regarded as an individual desire to use sport spectating to socialise with others with similar interests (Kim et al., 2021). Agents who are key figures in putting into effect the social rules are referred to as socialising agents. Family and friends (peers) have been perceived in the literature as socialisation agents (Baz & Fernández-Molina, 2018). In a sport setting, Essiz and Mandrik (2022) indicated that spectators frequently use sport or attendance of a sporting event as an approach to interacting with family and friends, and if sport does not offer that socialisation, spectators are less likely to consume it.

H4: Social interaction has a positive relationship with the intention to attend professional women's soccer matches.

Perceived Value

All marketing activities are directed at creating value (Chen & Lin, 2019), which Biscaia et al. (2023) see from a specialist's perspective as the 'sine qua non for businessmen and marketers'. Sine qua non is defined as something that is essential before an individual can achieve something else. Consumer perceived value has been broadly regarded as a key foundation of competitive benefit in the twenty-first century (Zauner et al., 2015). Over the previous two decades, literature contends that perceived value garners a great deal of attention in sport-related service industries (Choi et al., 2018), as one of the most salient variables in predicting consumption behaviour in the marketing literature (Byon et al., 2013; Baena-Arroyo et al., 2016), which can be used in numerous diverse contexts, including sports (Liu et al., 2020).

Despite the growing coverage of spectator-perceived value over the past decade, scholars have advanced different definitions. Sevilmiş et al. (2020) and Crespo Hervàs (2020) defined perceived value as the spectator's complete assessment of the worth of a sports event, based on the spectator's assessment of what is received (benefits provided by the sports event), and what is given (costs or sacrifice in acquiring and using the sports event). Based on the above-mentioned research, a value can be tied directly with service quality perceptions. Perceived value can, therefore, be operationalised as the spectators' assessment of the utility of perceived benefits and perceived sacrifices of soccer matches. Some research has been conducted in sports consumption literature on perceived value. For example, Moreno et al. (2016), Ma and Kaplanidou (2019), and Biscaia et al. (2023) studied spectator-perceived value in different sporting codes primarily devoted to sport in general. However, limited studies exist on spectator attendance in professional women's soccer on perceived value. The relationship between perceived value and the spectator's intention to attend has been studied in the sport consumption motives setting. Calabuig et al. (2016), Calabuig-Moreno et al. (2018) and Crespo Hervàs et al. (2020); Biscaia et al. (2023) found that perceived value is a better predictor of future intentions to attend sport event. Hence, this study proposes that;

H_5: Perceived value has a positive relationship with the intention to attend professional women's soccer matches.

The conceptual framework

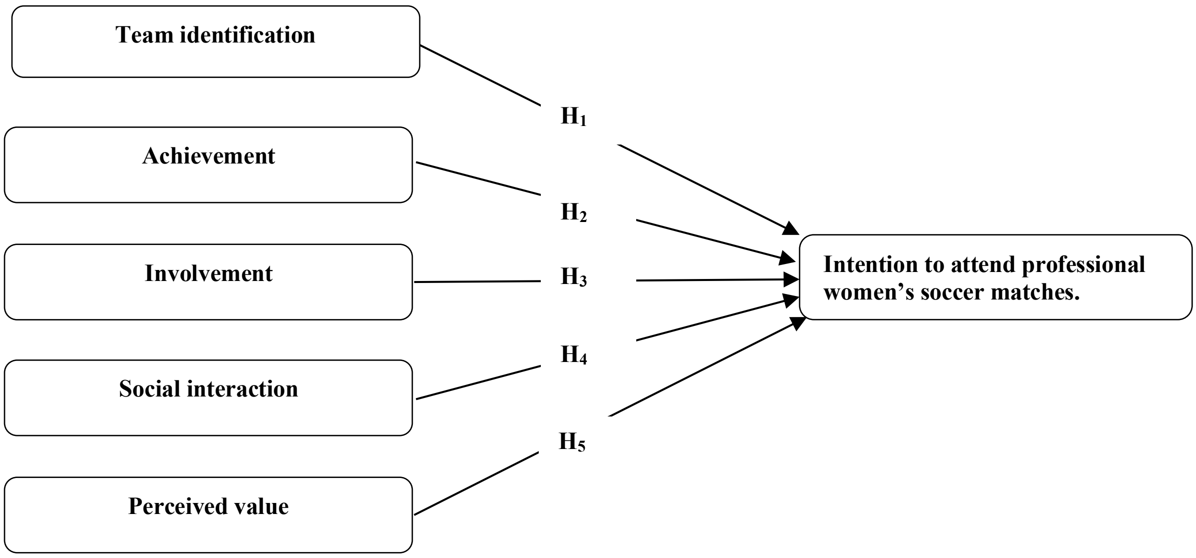

Figure 0.1: Conceptual framework

RESULTS AND DISCUSSION

Sample Composition

The sample included more males (n=161; 50.9%) than females (n=155; 49.1%). In terms of age, most of the respondents were between 18-29 years of age (n=175; 55.4%), followed by those who were under 30-39 years of age (n=84; 26.6%), those between 40-49 years of age (n=41; 13.10%) and respondents who were above 50 years of age (n=16; 5%). Most of the participants (n=92; 29.1%)

attend professional women's soccer matches monthly, followed by those who attend weekly (n=80; 25.3%) and respondents who attend quarterly (n=74; 23.4%) while 22.2 per cent (n=70) attend professional women football during some other times. All the participants attended professional women's soccer matches between January 2022 and September 2022.

Summary Statistics

Summary statistics are reported in Table 4. Considering that sex-point Likert scales were adopted in the study, mean scores greater than 3.5 were maintained (3.79, 3.967, 4.125, 4.274, 4.33 and 4.454), which denotes those respondents moderately agreed with the importance of the constructs among professional women's soccer matches. The standard deviations are also remarkably similar across the constructs (1.321, 1.422, 1.435, 1.444, 1.462 and 1.529). Two measures of peakedness were observed along the skewness and kurtosis values when assessing the symmetry of the sample data. The study used George and Mallery's (2016) less conservative guideline, which states that skewness and kurtosis values between -2 and +2 are still within acceptable parameters for a normally distributed data set. The precise values of skewness reported in this research ranged between -0.233 and -0.767, indicating a slight negative skewness and kurtosis values ranged between -.329 and +.044, implying that the set of data might be slightly flat.

Exploratory Factor Analysis

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

Table 1: Exploratory factor analysis for the research constructs

Constructs	**Sampling[1] competence**	**Sig[2]**	**Eigen-values[3]**	**% of variance[4]**	**No of items**	**Factors extracted**
Team identification	.843	.000	3.880	11.636	5	1
Achievement	.812	.000	3.339	15.179	5	1
Involvement	.823	.000	3.868	17.581	4	1
Social interaction	.789	.000	2.607	11.848	5	1
Perceived value	.782	.000	2.425	11.024	3	1
Intention to attend	.847	.000	3.772	75.435	5	1

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

Correlations Between Variables

Tests for data normality were performed before correlations were used. Because of the non-parametric results, it was evident that the data were not normally distributed. To ascertain the pattern of correlation between the collected components, Spearman's correlation coefficient (r) was calculated (Saunders et al., 2016). Table 2 presents the findings of the correlation analysis. At the $p<0.05$ level of significance, the correlational matrix showed moderately significant positive correlations between the variables, ranging from r=.526 to r=.708.

Table 2*:* Correlational matrix

Construct	Team identification	Achievement	Involvement	Social interaction	Perceived value	Intention to attend
Team identification	1					
Achievement	.653**	1				
Involvement	.556**	.390**	1			
Social interaction	.640**	.573**	.504**	1		
Perceived value	.471**	.328**	.444**	.452**	1	
Intention to attend	.708**	.526**	.647**	.606**	.591**	1
*** Correlation is significant at the 0.01 level (2-tailed).*						

Regression Analysis

Regression analysis was performed after thorough inspections to confirm the linear regression models' hypotheses and perform co-linearity diagnostic tests. The sample size was evaluated to determine its appropriateness because a small sample size may impact the results of a regression analysis. Tabachnnik and Fidel (2007) have proposed that it is sufficient to execute multiple regression analysis with a sample size of $N > 50 + 8m$, where m is the number of independent variables. Because two independent variables are involved, the sample size in this study is 316, which is greater than the required minimum of 66 respondents.

Furthermore, the inter-correlation matrix, tolerance value, and variance inflation factor for each independent factor were checked for multicollinearity. As exposed in Table 2, there was no indication of multicollinearity as all the variable associations were below the verge of 0.80 (Da Silva & Las Casas, 2017). Saunders et al. (2016) account for the tolerance values being more than 0.1 and the variance inflation factor (VIF) values not surpassing 10.0. As shown in Table 3, both values were acceptable, with the lowest tolerance value of 0.405 and the highest VIF of 2.467, indicating that multicollinearity posed no problems in the study. Regression analysis was then conducted to observe the association between the constructs, and the results were exposed in Table 3.

Table 3: Results of regression analysis

Dependent variables: Intention to attend	**Beta**	***T***	**Sig**	**Collinearity statistics**	
Model 1: Independent variables				Tolerance	VIF
Team identification	0.060	1.303	.194*	0.532	1.879
Achievement	0.329	6.267	.000*	0.405	2.467
Involvement	0.113	2.400	.017*	0.504	1.985
Social interaction	0.276	6.539	.000*	0.626	1.599
Perceived value	0.244	6.136	.000*	0.707	1.414
R=0.809; R^2 =0.655; Adjusted R^2=0.649; Sig. P<0.000; F=117.570; Tol=Tolerance; VIF=variance inflation factor*					

The results designated that both team identification, achievement, involvement, social interaction, and perceived value enlightened 65 per cent of the variance (F=117.570; p<.01) in model 1. When probing, the beta coefficient achievement is a stronger predictor (β= 0.276) of the spectator's intention to attend professional women's soccer matches.

Reliability and Validity

All of the constructs under examination underwent reliability tests (Cronbach alpha) to verify the internal consistency of the measures used in the study. Table 4 displays acceptable Cronbach alpha values for each item, all higher than the suggested threshold of 0.70 (Malhotra et al., 2017). This suggests that the many items used to evaluate each construct were dependable.

Table 4. Scale reliability and validity

Research construct		**Cronbach's test**	
		Item-total	**α value**
Team Identification (SI)	TI1	.734	.908
	TI2	.804	
	TI3	.797	
	TI4	.756	
	TI5	.761	
Achievement (ACH)	ACH1	.804	.940
	ACH2	.864	
	ACH3	.869	
	ACH4	.842	
	ACH5	.814	
Involvement (INV)	INV1	.611	.812
	INV2	.663	
	INV3	.627	
	INV4	.626	
Social Interaction (SI)	SI1	.692	.875
	SI2	.746	
	SI3	.727	
	SI4	.692	

Research construct		Cronbach's test	
		Item-total	α value
Perceived Value (PV)	PV1	.553	.802
	PV2	.755	
	PV3	.651	
Intention to Attend (ITA)	ITA1	.763	.893
	ITA2	.630	
	ITA3	.772	
	ITA4	.769	
	ITA5	.764	

Construct validity was guaranteed by computing both discriminant and convergent validity. Using exploratory factor analysis, the components' discriminant validity was evaluated. The data set supports the discriminant validity of the constructs, as seen by the simultaneous loading of all items on the indicated constructs and the lack of cross-loadings. Table 2 displays the results of the correlational matrix, and it is clear that there are significant, sufficient positive correlations between the variables, demonstrating convergent validity. Additionally, Table 4's item-total correlations were all greater than 0.50, demonstrating convergent validity (Malhotra et al., 2017).

DISCUSSION

The first hypothesis (**H_1**), team identification, would display a positive relationship among spectator's intention to attend professional women's soccer matches. As foretold, this hypothesis was supported ($\beta = 0.060$, t-value = 1.303, $p < 0.000$). This result was also substantiated by a moderate constructive correlation ($r = 0.708$, $p < 0.05$). These observations are dependable with preceding study findings, which confirm that team identification is positively associated with spectator intention to attend (Rocha & Fleury 2017.; Lee et al., 2020). In this study, these findings support the perception that spectators who are more highly motivated by team identification motive through sport consumption will more frequently attend sporting events because their needs and motives are stable over time.

The second hypothesis (**H_2**) stipulated that achievement would display a positive relationship among spectator's intention to attend professional women's soccer matches. This hypothesis was supported with a direct effect ($\beta = 0.329$, t-value = 6.267, $p \leq 0.01$). This result was also supported by a moderate positive correlation coefficient ($r = 0.526$, $p \leq 0.01$). These study results align with findings found in the research literature about the constructs of achievement and spectator's intention to attend, demonstrating that these constructs have positive and significant effects on each other (Yoshida et al., 2015; Cho et al., 2019). Within a sports consumption setting, spectators' individual achievement would impact the overall spectating intention to attend professional women's soccer matches.

The third hypothesis (**H_3**) postulated that spectator involvement would positively influence the spectator's intention to attend professional women's soccer matches. This hypothesis was confirmed ($\beta = 0.113$, t-value = 2.400, $p < 0.000$). The result was also validated by a reasonable positive correlation ($r = 0.647$, $p < 0.01$). The findings validate previous research that established the significance of spectator involvement in the upkeep of intention to attend soccer matches (Phonthanukitithaworn & Sellitto, 2017). The level of involvement (or detachment) produced by sport spectatorship influences commitment and intention to attend professional soccer matches. This suggests that an individual with an elevated level of soccer involvement and who experiences a greater beneficial impact without any or little detrimental effect has a higher intention to attend professional women's soccer matches.

The fourth hypothesis (**H_4**), social interaction, would display a positive relationship among spectator's intention to attend professional women's soccer matches. This hypothesis was supported with a direct effect ($\beta = 0.276$, t-value = 6.539, $p \leq 0.01$). This result was also supported by the existence of a moderate positive correlation coefficient ($r = 0.606$, $p \leq 0.01$). These study results align with findings found in the research literature about the constructs of social interaction and spectator's intention to attend, demonstrating that these constructs have positive and significant effects on each other (Koenig-Lewis et al., 2018). Within a sport consumption setting, the individual social interaction of spectators would impact the level of overall spectating intention to attend professional women's soccer matches.

The fifth hypothesis (**H_5**) highlighted that perceived value would display a positive relationship among spectator's intention to attend professional women's soccer matches. This hypothesis was supported with a direct effect ($\beta = 0.244$ 6, t-value =.136, $p \leq 0.01$). This result was also supported by the existence of a moderate positive correlation coefficient ($r = 0.591$, $p \leq 0.01$). These results of the study are in line with findings found in the research literature about the constructs of perceived value and spectator's intention to attend, demonstrating that these constructs have positive and significant effects on each other (Meeprom & Silanoi, 2020; Li et al., 2021). Within a sport consumption setting, the individual's perceived value of spectators would impact the level of overall spectating intention to attend professional women's soccer matches.

MANAGERIAL IMPLICATION

The managerial implications derived from the study on factors affecting spectator attendance at professional women's soccer matches in South Africa are significant for sports organisations, event managers, and soccer club owners. Understanding motivational factors such as team identification, vicarious achievement, involvement, social interaction, and perceived value allows managers to develop targeted strategies to attract and retain spectators. For example, leveraging team identification by enhancing spectator engagement initiatives can foster a stronger connection between spectators and teams, which may result in increased attendance. Additionally, promoting a sense of vicarious achievement through marketing the success of teams and players can help satisfy spectators' emotional needs, boosting match attendance.

Managers should also consider fostering social interaction at events by creating opportunities for spectators to engage with each other, which could increase the likelihood of repeat attendance. By improving the perceived value of attending soccer matches through affordable pricing, enhanced stadium experience, and exclusive offers, organisations can influence spectators' intentions to attend or return. Similarly, these insights can guide the design of promotional campaigns and sponsorships, ensuring that investments align with the factors most strongly drive spectator behaviour. Overall, the study underscores the importance of aligning marketing strategies with spectator motivations, thereby enhancing the growth of women's soccer as a professional sport in South Africa.

CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

The motivating variables (team identification, achievement, involvement, social interaction, and perceived value) and intention to attend soccer events are essential, and this research study expands on earlier studies that demonstrate this. It offers information on the correlations between motivational factors and intention to attend professional women's soccer matches, and it supports research on sport consumption that focuses on South Africans. Sport clubs and teams with high attendance rates benefit from sport consumption. For these clubs, attendance at stadiums is the primary source of revenue.

For professional soccer teams, stadium attendance revenue is one of the most significant sources of income. In this sense, soccer teams must continue to draw the largest crowds to stadiums. Researchers should see sports spectators as sport customers and combine the two ideas if stadium attendance is seen as a market. The Covid-19 lockdown laws may have reduced attendance at sport events, such as professional women's soccer matches, which affected ticket sales. However, more elite players and technical staff may become available or hired, allowing for increased technical assistance and competition. Overall, this study has advanced knowledge on professional female soccer spectators' motivations for watching sports, which could assist sporting organisations..

The current study's limitations include the reliance on self-reported data, which may introduce response biases, as participants may have yet to disclose their motivations or behaviours fully. Additionally, the study was conducted within a single province in South Africa, limiting the generalisation of the findings to other regions or countries with different socio-economic, cultural, or sporting environments. Another limitation is the cross-sectional design, which captures data at a single point in time, preventing the assessment of changes in spectator motivations or behaviours over time. Lastly, snowball sampling may have resulted in a sample not fully representative of the entire women's soccer spectators' population, which could affect the study's external validity.

For future research, conducting longitudinal studies to examine how spectator motivations evolve, especially as women's soccer is popular, would be beneficial. Expanding the study to other regions within South Africa or internationally could also provide more comprehensive insights into the factors influencing spectator attendance across different contexts. Future studies could also explore the impact of external factors such as media coverage, sponsorship, and team performance on spectator behaviour. Additionally, incorporating qualitative methods such as interviews or focus groups could provide a deeper understanding of the reasons behind spectators' intentions and behaviours, complementing the quantitative data obtained through surveys.

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PERCEPTIONS OF TRADITIONAL HEALTH PRACTITIONERS AND COMMUNITY MEMBERS ON THE EFFECTS OF URBANISATION ON AVAILABILITY OF MEDICINAL PLANTS IN THE MALAMULELE AREA OF LIMPOPO PROVINCE, SOUTH AFRICA

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Abstract

Medicinal plants touted to be important to humanity, with continuation of being used as a source of food and basic healthcare worldwide selectively. Negatively, most of them are under threat of a possible extinction, contributed by habitat loss, population increase, urbanisation, and climatic change, amongst others. Therefore, the objective of this study was to explore perceptions of the Traditional Health Practitioners (THPs) and community members on the effects of urbanisation on availability of medicinal plants in the Malamulele area of Limpopo Province, South Africa. From a qualitative standpoint, this study employed exploratory research design, with the adoption of the non-probability: Purposive sampling to sample about 20 participants, comprising of five THPs and 15 community members. They were all subjected to the semi-structured in-depth interviews, this was supported by the review of literature studies on this subject for data collections. For data analysis, the inductive Thematic Content Analysis (TCA) was adopted to organise data and identify the study theme aligned to the objective of this study. The findings of this study highlights that, the availability of medicinal plants in the Malamulele area were threatened by urban development, leading to their extinction. A consensus was reached that the 'medicinal plants' in the study location reportedly suffer a great loss due to urbanisation and lack of implementations of available conservation methods to possibly prevent extinction. This study concludes and recommends that indigenous native residents under Collins Chabane Local Municipality (CCLM) should take urgent actions to protect these plants from extinction through investing in awareness sessions, biodiversity knowledge, conservation techniques and management skills transfer and responsive interventions to preserve them holistically.

Keywords: Availability of medicinal plants, community members, effects of urbanisation, Limpopo Province, Malamulele area, perceptions, South Africa, traditional health practitioners

INTRODUCTION

Medicinal plants are in the selected South African rural areas touted to be important to humanity, with a continuation of being used as a source of food and basic healthcare worldwide, Shibambu, 2023). Hassan Hadi, Kassim and Al-Hassany (2012) submit that several factors contribute to the extinction of medicinal plants. These include habitat loss, population increase, urbanisation, and threats brought by climatic change. Medicinal plants are regarded to have a promising future, as it is indicated that about half a million plants around the world are revealed to be available, while most of their medical activities are also recorded and investigated (Hassan et al., 2012). These medicinal plants may contain ingredients that could be decisive in the treatment of present or relevant studies, by informing future research, policy implications and health interventions. These plants are often used for synergic medicine, support of official medicine, and preventive medicine, among others. Correspondingly, with these plants, unlike animals, cultural acts can be restored (Raven, 2021).

Most species could be classified as Least Concern [LC] (Brower, 2008). These species have been categorised by the International Union for Conservation of Nature (IUCN) and may soon be extinct. As a result, making regional risk assessments even in data-sparse countries can aid in the planning of conservation management, and for urgent considerations (Kaky & Gilbert, 2019). The IUCN Red Data List remains one of the most important of all conservation indicators; however, most developing countries do not have enough information with which to make assessments (Kaky & Gilbert, 2019). Therefore, finding sustainable ways to harvest, collect, and grow medicinal plants from the wild, including training and education of the residents on better and progressive measures is needed (Shinwari, 2010). Moreover, Du Toit (2015) cautions that as the rural population decreases and cities expand, natural resources (i.e., plants) are threatened in that they are cleared to make way for urbanisation. This trend is also common in the areas around Malamulele and has been observed in the villages of Roodhuis, Mphambo, Xigalo, Xitlhelani, Madonsi, and Mavambe. This study thus aims to understand the impact of urbanisation on medicinal plants in these villages. According to Czech, Krausman and Devers (2000), urbanisation is amongst the major cause of native species extinction. Uttara, Bhuvandas and Aggarwal (2012) indicate that urbanisation entails industrialisation and economic development and, with it, comes the clearance of land for residential stands, construction of malls, schools, hospitals, taxi ranks, and many more. All these are detrimental and if not managed properly, it leads to the extinction of medicinal plants. As a result, this study attempted to fill the identified gap from the consulted seminal studies by focusing on urban ecology to provide an understanding of the complex relationship between urbanisation and ecological contexts for sustainable use of medicinal plants, while preventing them from possible extinction during urban developments.

REVIEW OF LITERATURE STUDIES

The Use and Importance of Medicinal Plants

The use of plants for treating various diseases is as old as the human existence. Popular observations on the use and efficacy of medicinal plants significantly contribute to the disclosure of their therapeutic properties, so that they are frequently prescribed, even if the chemical constituents of medicinal plants are not always completely known, they are however, frequently prescribed and popular observations on the use and efficacy of these medicinal plants significantly contribute to the disclosure of their therapeutic properties (Silva & Fernandes-Júnior, 2010). On many accounts, medicinal plants are widely used. Population increase, insufficient supply of medical drugs, expensive cost of treatment, side effects of several synthetic drugs, and the new development of resistance to the drugs that are currently used for infectious diseases have led to an increase in the uses of plant materials as a source of primary medicine (Nawaz & Khan, 2016).

Medicinal plants have different characteristics and roles when used for the treatment of different diseases, which are *firstly,* synergic medicine, that is, the ingredient of plant species that all interact simultaneously so their uses can complement each other, or damage others, or neutralise their possible negative effects, they work effectively with each other. *Secondly*, support of official medicine, that is, in the treatment of complex cases like cancer diseases the components of the plants proved to be very effective, they are used to treat chronic diseases, for example, *Moringa* (Nawaz & Khan, 2016). *Thirdly,* preventive medicine, that is, these medicinal plants are used to boost the immune system and assist the body to resist certain diseases, it has been proven that the component of the plants also characterised by their ability to prevent the appearance of some diseases (Hassan et al., 2012). This will help to reduce the use of the chemical remedies that will be used when the disease is already present, for example it reduces the side effect of synthetic treatment (Hassan et al., 2012, Shibambu, 2024).

The natural antiseptic properties of medicinal plants are one of the reasons they are used. Consequently, the potential properties and uses of medicinal plants have been investigated to create extracts for the preparation of potential nanomaterial-based medical drugs to cure diseases (Greenwell & Rahman, 2015). Various medicinal plant products possess analgesic, and antipyretic properties (Mohammad, Majumder, Rashed-al-Qayum, Bhattacharjee & Kar, 2013). These plants can be used as digestive stimulants, anti-diarrheic, antiseptic, anti-inflammatory, anti-parasitic, and for appetite purposes stimulants in humans (Al-Snafi, 2021).

Management of Urbanisation

It is necessary to sustain urbanisation as it is the major factor of the survival of the society, growth in developing countries, and it produces other benefits as well, however, it is not necessarily painless, or always welcomed by policymakers or the general public as it has some negative impact on the natural vegetation including medicinal plants (Cox, Shanahan, Hudson, Fuller & Gaston 2018). Managing urbanisation is a significant part of nurturing growth, heavy costs can be imposed by the negligence of cities even in countries where the level of urbanisation is low, an urban zone is a centre of commercial activities in societies, it is with this reason that it must be sustained (Cox et al., 2018). In terms of development and growth, urbanisation occupies a puzzling position (Uttara et al., 2012). Urbanisation is not an easy process, and it has evolved. On the one hand, urbanisation is acknowledged as important to the multidimensional structural transformation that low-income rural societies undergo to modernise and to join the ranks of middle- and high-income countries (Uttara et al., 2012). The use of medicinal plants is not only limited to their availability and affordability, but is also culturally driven, as these plant products are also found in urban settlements (Khumalo, Van Wyk, Feng & Cock, 2022). The medicinal plants are extensively utilised throughout the world in a way that most people depend largely on medicinal plants for their health and are not only a major source base for the traditional medicine and herbal industry but also provide livelihood and health security of a large segment of the world's population as recently most pharmaceutical medicine are manufactured from medicinal plants (Shibambu, 2024; Khumalo et al., 2022).

Jain (2016) estimates that over 80% of the world's population depends directly on traditional form of medicine, mainly plant based to meet their primary health care needs. Jain (2016) shows that about 40% of the pharmacological industries mostly rely only on medicinal plants. These plants are known to have medicinal qualities or properties, or rather are used no meet the primary health needs for the citizens and being used in the traditional system of medicines, there are different kinds of medicinal plants, for example: *'Ayurveda, Yunani, Siddha, and Homeopathy.'* The medicine is made either from the whole plant or from different parts of the plant, like leaves stem, bark, root, flower, and seeds (Jain, 2016). The medicinal plants include various types of plants used in herbalism and the pharmacological industry for the survival of human beings; some of these plants have a medicinal activity, in a way that they are used to manufacture medicine that can cue different diseases. These medicinal plants are considered rich and necessary resources of ingredients, which can be used in drug development and synthesis (Hassan et al., 2012, Shibambu, 2024). Besides that, medicinal plants play a critical role in the development of human cultures worldwide (Hassan et al., 2012), they play a major role in the sustainability of people's health. Some plants are considered as important sources of nutrition and are recommended for their therapeutic values. Some plants such as ginger, green tea, walnuts, and some plants have nutritional value, but they are not necessarily regarded as medicinal plants. Other plants such as aloe vera, willow tree, cloves, olive, and mint are considered as important sources for active ingredients used in products such as aspirin and toothpaste (Hassan et al., 2012).

Perceptions of Traditional Health Practitioners and Community Members on Medicinal Plants

Several researchers (Arjona-García, Blancas, Beltrán-Rodríguez, López Binnqüist, Colín Bahena, Moreno-Calles & López-Medellín, 2021; Hou, Li, Li & Qi, 2023; Sakketa, 2022; Magoro, 2008; Ngcamu, 2022) documented various effects of urbanisation on species scarcity. Most of these researchers mention urbanisation as a major contributor to the extinction of medicinal plants. Based on geographical settings, urbanisation can either increase or decrease the richness of rural species (Czech et al., 2000). Plants that are mostly used for health purposes are negatively affected by urbanisation (McKinney, 2008). This subsequently causes scarcity of these plants, leading to extinction (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; McKinney, 2006). Another negative impact on medicinal plants is structural simplification of vegetation in many areas (Marzluff & Ewing, 2008). Landscaping and maintenance of residential and commercial areas typically involves removal of vegetation and dead wood and an increase in grasses and herbs, which leads to plant species being destroyed and not preserved (Marzluff & Ewing, 2008). The African Health Care System of South Africa has always been dependent of medicinal plants. Due to the increase in urbanisation, the demand of medicinal plants also increases (Williams Victor, & Crouch, 2013). Knowledge of medicinal plants that people have can be affected by urbanisation [which involves recognising, naming, using, and managing species in that use category] (Arjona-García et al., 2021).

Research Design and Methodology

In an attempt to accomplish the blueprint road map of responding to the objective of this study (Kumar, Mitra, Adhikari & Rawat, 2018), this study was confined to the six (06) selected Malamulele areas of Limpopo Province, namely: 1) Roodhuis, 2) Mphambo, 3) Xigalo, 4) Xitlhelani, 5) Madonsi, and; 6) Mavambe). The qualitative research approach was used to gain experiences, thoughts, insights, feelings and concerns on this subject, supported by empirical findings and relevant literature studies (Akerlof, Maibach, Fitzgerald, Cedeno & Neuman, 2013; Maluleke, 2016; Maluleke, 2020) and adopted the exploratory research design due to limited knowledge on this subject (Mbaka & Isiramen, 2021; Thomas & Lawal, 2020).

About 20 participants formed part of this study, consisting of fifteen (15) community members (focusing on indigenous native residents often using medicinal plants, with extensive knowledge of medicinal plants and understanding the effects of urbanisation on availability of medicinal plants), who were selected using the non-probability: Purposive sampling and the other five (5) participants were THPs (restricted to those with traditional medicine experience and the importance of medicinal plants), which were sampled using the snowball sampling. For data collections, all the participants were subjected to the semi-structured (referred to as a conversation with a purpose, whereby the interviewer and participants engage in a formal interview, guided by an interview schedule guide; Qualitative Research Guidelines Project, 2018) in-depth interviews [purposeful interactions where a researcher attempts to learn what the selected participants know about a research topic to discover and record their experiences, significance and attached meanings] and suitable literature review to gather first-hand information (Mears, 2012; University of New South Wales, 2023).

This study adopted the inductive TCA, as described by Creswell (2013). The researchers organised the collected data (obtained by breaking down the study objective). Index cards were used by breaking down large bodies of texts into smaller units such as phrases. The researcher read the collected data several times, to obtain the participants' perspectives, while writing down notes and using the voice recorder. The collected data were integrated and summarised for the reader to understand thematically (O'Reilly & Kiyimba, 2015; Creswell, 2013).

STUDY FINDINGS AND DISCUSSION

This study brought an understanding of this subject based on the study objective, which was to explore perceptions of the THPs and community members on the effects of urbanisation on the availability of medicinal plants in the 06 selected rural villages of Malamulele area of Limpopo Province, South

Africa to inform certain conservation methods that exist for the promotion of more sustainable and reliable preservations of medicinal plants against urbanisation. The referencing method for the conducted interviews in this study comprised a numerical sequence, adhering to the following notation example: (5:1:2). The 1st digit (5) relates to the selected villages where the semi-structured in-depth interviews were conducted. The 2nd digit (1) refers to the interview number, while the 3rd digit (1) covers the sequence of the cited interview, based on the conducted semi-structured in-depth interviews.

Perceptions of Traditional Health Practitioners and community members on the effects of urbanisation on medicinal plants in the Malamulele of Limpopo Province, South Africa

All the selected participants (THPs and community members) were asked the following questions to ascertain their perspectives regarding the effects of urbanisation on medicinal plants and their verbatim expressions were shared herewith:

- *How is the development of Malamulele affecting the availability of medicinal plants in the area?*
- *Which plants species are specifically affected?*
- *Which of these plant species are still available, but scarce due to urbanisation?*
- *In which places are medicinal plants still available in your area, despite urbanisation?*

The findings reported below were largely echoed by the majority of the selected participants, regardless of the study location. For instance, their remarks regarding the effects that urbanisation has on the availability of medicinal plants were similar. The participants indicated their knowledge on the importance of medicinal plants, but these medicinal plants are mostly destroyed due to urbanisation in the area. On clearly understanding the effect of urbanisation no the extinct medicinal plants in your area, in this respect; eleven (11) of the selected participants had the following to highlight in verbatim expressions:

'In Malamulele area we still prefer to use medicinal plants to meet our primary health care needs regardless of the western health care services [public clinics and hospitals] that the government provide us with, hence the loss of medicinal plants that is influence by urbanisation affects our well-being.' (1:7:1-Xigalo village, In-depth interview-community member).

'In instance medicinal plants are found in the wild and when there are developments that are happening, like school building, and expanding of the city, amongst others, the wild is the targeted area for such development and medicinal plant are destroyed without any conservation methods to protect them.' (5:11:2- Roodhuis village, In-depth interview-community member).

'One of the notable cases is the building of new Malamulele high school. The school is built at an area where people around the area used to collect medicinal plants to cue different diseases. The medicinal plants that were found in that particular area are Aloe vera, Mangane, Tsenga and Xibaha. Therefore, due to the large land that is used to build, the school majority of these medicinal plants were destroyed, and no conservation measures were implemented during the course of clearing the land.' (4:16:3-Madonsi village, In-depth interview-community member).

'Expansion of cities due to urbanisation, affects preservation and protection of medicinal plants in our area because in most cases we not even given the opportunity to suggest that medicinal plants should be protected before the developments resume. Thus, the larger portion of medicinal plants population is destroyed and lost due to urbanisation.' (3:9:4- Mavambe village, In-depth interview-community member).

'Urbanisation is happening so fast in our area. There is always something happening as an improvement in our community. However, medicinal plants suffer a great loss in the process in it all. What I mean by this is that due to urbanisation there is a lot of clearing of land and deforestation happening and it results in medicinal plants being extinct in our area.' (6:18:5- Xitlhelani village, In-depth interview-THP).

'In my line of work as a THP I have witness that urbanisation or improvement of our community greatly affect the existence of medicinal plants and most of them are already facing extinction in our area. Another thing, the rate at which urbanisation is happening we have high chance of losing most of our medicinal plants as they are already scares.' (5:11:6- Roodhuis village, In-depth interview-THP).

'From my observations, it is evident that medicinal plants suffer great deal from the processes of urbanisation. The clearing of land and deforestation that happen during the building of infrastructures such as malls, schools, stadium, recreation centres and so on, destroy lot of our plants.' (2:8:7-Mphambo village, In-depth interview-community member).

The participants echoed each other's views that medicinal plants are becoming extinct in their areas due to urbanisation. Some of the participants mentioned that there are a lot of medicinal plants that they used to get from their communities however, now they are no longer available. They also mentioned that most of the medicinal plants in their areas are threatened with extinction due to clearing of land and deforestation that happens during the building of infrastructure such as malls, schools, stadium, and recreation centres. Du Toit (2015) in section 1 of this study warned that as rural populations decrease and cities expand urban ecological, or urbanisation research is significant. He continued to state that this attempt to fill the identified gap by noting that urban ecology seeks to understand the complex relationship between human urban settlement and their ecological contexts to ensure sustainable futures for species such as medicinal plants since they become scarce because of urbanisation, and will eventually come to extinction. Therefore, McKinney (2008) mentioned that the effects of urbanisation on species richness has been described, as the increase or decrease of species richness that influenced by urbanisation.

According to McKinney (2008), plants that are mostly used for health purposes are negatively affected by urbanisation. This subsequently causes scarcity of these plants, leading to extinction as stated by McKinney (2008). His study concluded that approximately sixty-five percent (65%) of plants showed increasing species richness, based on moderate urbanisation. The other remaining thirty-five percent (35%) are affected by non-development factors, such as climate change. Czech et al. (2002) and McKinney (2006) presented that while acknowledging the effects of urbanisation on medicinal plants extinction, the complexities surrounding the nature of urban land use and availability should be prioritised to clearly accommodate local rural biodiversity and related influences. In addition, 'on the use of different plants species for health purposes in the past,' three (3) of the selected participants shared the following in verbatim:

'A lot of medicinal plants are affected due to urbanisation, plants such as Mavapfuka, which is used to help people that are on their death beds, Mgobo is used for stomach ache, Rinyamanyama also used to cue stomach ache, Mthagwari is used for detoxing and cleansing, Mdorho is used to cue swollen legs.' (5:17:1- Roodhuis village, In-depth interview-THP).

'The plants that were used for health purposes in the past are Mhangani, which is used to cue different kinds of diseases, such as stomach ache, skin problems, and toothache. Mavapfuka is used to help people who are on their deathbeds. Nhlaba ya fole is used for headache, and spiritual purposes (snuff), Ximahlwamahlwani is used as eye drops, and Mgobo is used to cue stomach ache.' **(**3:15:2- Mavambe village, In-depth interview-THP).

The participants mentioned more or less common plants that are known for their medical qualities and the diseases that are cured by these plants. These plants were mentioned by most of the participants because they are the ones that are most threatened by urbanisation. Hassan et al. (2012) presented that the medicinal plants have a promising future because there are millions of plants across the world, and the medical activities for majority of them have not been fully researched. According to Brower (2008), medicinal plants are facing extinction; other negative future discoveries cannot be underestimated, as they are often threatened by various factors such as urbanisation. Furthermore, Brower (2008) stated that most species could be classified as LC. These species have been categorised by the IUCN. These plants may soon be extinct. As a result, making regional risk assessments even in data-sparse countries can aid in the planning of conservation management, and for urgent considerations as supported by Kaky and Gilbert (2019) in section 1 of this study. The IUCN Red Data List remains one of the most important of all conservation indicators; however, most developing countries do not have enough information with which to make assessments as stated by Kaky and Gilbert (2019). Czech et al., 2000, Khumalo et al., 2022; Shibambu, 2024) concurred in section 1 that these plants are threatened with extinction worldwide. To understand 'which of these plant species are still available in the selected villages, but scarce due to urbanisation;' other three (03) of the selected participants hinted at the following aspects:

'Medicinal plants such as aloe vera, Mangane, N'tita, Thlathlangati, Combretaceae, Xicucutse, Xiwondzwana, Tsenga, and Mpfungura are still found in the wild. However, they are very scarce unlike in the past. Some of these plants are still available because we are able to plant them at the back of our yards. I have planted aloe vera in my yard, so it makes it easier for me to access them, even though most of it is destroyed in the wild.' (4:16:1- Madonsi village, In-depth interview-community member).

'Urbanisation has had a greater effect on the availability and existence of medicinal and for us to access them is more difficult, and because although most of the plants are already extinct some of them are still available but are very scarce and now, we have limited access to these plants because the natural supply of these plants is very low as compared to the demand from the general public.' (1:1:2- Xigalo village, In-depth interview-community member).

'There are several medicinal plants that are affected by the processes of urbanisation in our area. Notable plants that are scare because of urbanisation are Xugulu, Xibaha, Potsa, and Tsengele. These are the few that I can remember. Lots of the plants I just knew them when I see them but did not know their names, so now since they are no longer easy to find it becomes even more difficult to remember them.' (6:18:4- Xitlhelani village, In-depth interview-THP).

Despite the effect that urbanisation has on the availability of medicinal plants, there are still some plants that are still available in Malamulele communities. However, the participants mentioned that they are scared that at the rate that urbanisation is going even these available plants will be affected and eventually face extinction. According to Khumalo et al. (2022) the use of medicinal plants is not only limited to their availability and affordability, but is also culturally driven, as these plant products are found in urban settlements as well. It is estimated that, about forty 40% of the pharmacological industries mostly rely only on medicinal plants. Raven (2021) stated that with plants, unlike most animals, we can regenerate tissue cultures relatively easily to produce whole, complete individuals. In addition, Raven (2021) presented that many plants species are used for cultivation in botanical gardens. Hassan et al. (2012) further argued that besides that, these plants play a critical role in the development of human cultures around the world, they play a major role in the sustainability of people's health. Importantly, Hassan et al. (2012) added that some plants are considered as important sources of nutrition and are recommended for their therapeutic values. These include ginger, green tea, walnuts, and some other plants, which are not necessarily medicinal but nutritional. Furthermore, the researcher was also interested in determining places where medicinal plants are still available in their villages, despite various urbanisation processes, this is what three (3) of the selected participants said verbatim:

'Urbanisation destroyed most of the medicinal plants population in our area, but plants that are found by the side of the river and those that can be uprooted to be planted in another area are still available. Hence, we are most likely to find medicinal plants that grow by the side of the river and the ones that we have planted in our yards. The reason plants that grow by the side of the river are less likely to be affected by urbanisation is because most of the development activities are not done in such areas and the ones that plant in our own are still available is because most of them is the leaf part that is used so it gives a plants a chance to grow again.' (6:12:1- Xitlhelani village, In-depth interview-community member).

'Medicinal plants that grow next to the river or mountains can still be found. This is because so far, the land developer does not target such places when doing their projects, I can say that for now, those plants are still safe. Also, plants that can be planted in our own homes such as Mhangani, Nhlaba ya fole, Xikwavava, and Muringa can still be found, because people have control of what happens in their homes.' (4:16:2- Madonsi village, In-depth interview-community member).

'Most of the medicinal plants that I use as a traditional healer to assist my clients are no longer found in our area. The closest place where I can find the medicinal place in Thengwe, which is in Venda far from our area. For some of the plants I travel to Gauteng to a place called Faradale in order to find plants like Sasavafi, Xikhundla, Nandela, Xikukutsi, and Petswa.' (3:15:3- Mavambe village, In-depth interview-THP).

The participants mentioned that the place where medicinal plants are still available are places where it is rare for urbanisation processes to take place, for example river side, back yards and mountains.

Table 1*: The identified study theme*

Study theme	Study findings and researcher's comments
The removal of vegetations and essential medicinal plants	Due to the urbanisation processes, a huge quantity of vegetation and essential medicinal plants are often removed from the forest or the allocated areas. The urbanisation process have put a huge strain on the availability of medicinal plants and are under threat. The contractors do not prioritise protecting medicinal plants when doing their development, and deforestation is done without considering medical plants. Moreso, the removal of vegetation from its roots and burning of the entire land is mostly done during the process of urbanisation and it leads to plants being scars and extinction of medicinal plants.

Source: Researcher's illustrations (2024)

STUDY CONCLUSION AND RECOMMENDATIONS

The aim of this study was to explore the perceptions of the THPs and community members on the effects of urbanisation on the availability of medicinal plants in the Malamulele area of Limpopo Province, South Africa. This study concludes and recommends that urbanisation has a major impact on the loss of medicinal plants in the area. The indigenous native residents under CCLM should take urgent actions to protect these plants from extinction through investing in awareness sessions, biodiversity knowledge, conservation techniques and management skills transfer, and responsive interventions to preserve them holistically.

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. Although it is impossible to stop urban expansion, all plants that have medical applications that are found in those areas of the urban expansion should be well preserved and protected in a safe space, which will be an area where they can be found when needed. In addition, it explored ways in which medicinal plants can be protected against the threat of urbanisation and other factors. The findings were that indeed the extinction of medicinal plants in the Malamulele area was due to urbanisation. According to the findings of this research, 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 or next to Malamulele were relocating from their villages to urban areas, where medicinal plants are destroyed without preservation for the building of houses in the urban areas.

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